

DRAFT

**INITIAL STUDY CHECKLIST FOR THE
VENTURA SHELLFISH ENTERPRISE PROJECT**

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ACOE	U.S. Army Corps of Engineers
AQMP	Air Quality Management Plan
BMP	best management practice
CCC	California Coastal Commission
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
CMP	Congestion Management Program
Commission	California Fish and Game Commission
EIR	environmental impact report
ESA	Endangered Species Act
GHG	greenhouse gas
MLPA	Marine Life Protection Act
MPA	marine protected area
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
PATON	Private Aid to Navigation
PEIR	Program Environmental Impact Report
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service
VCAPCD	Ventura County Air Pollution Control District
VCTC	Ventura County Transportation Commission
VPD	Ventura Port District
VSE	Ventura Shellfish Enterprise

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1 INTRODUCTION

1.1 Project Overview

The project consists of the identification and approval of 20 100-acre leases in sandy bottom areas of state waters located northwest of Ventura Harbor (harbor) (Figure 1) to grow shellfish for commercial harvesting by members of the Ventura Shellfish Enterprise (VSE) cooperative. The project would establish a commercial offshore bivalve aquaculture operation based from the Ventura Harbor to create economic opportunities for community and marine stakeholders, produce a high-value and sustainable seafood product, and advance collaborative evaluation of permit applications among regulators.

Increasing the supply of safe, sustainably produced domestic seafood is a priority for the National Oceanic and Atmospheric Administration (NOAA) and the Department of Commerce, as well as the State of California and the California Department of Fish and Wildlife (CDFW). In 2015, the Ventura Port District (VPD)—in cooperation with volunteer partners identified as the VSE—received a substantial sub-award from a NOAA 2015 Sea Grant Aquaculture Extension and Technology Transfer Grant to California Sea Grant in support of a strategic permitting and planning initiative to facilitate and substantially increase shellfish farming in Southern California. The VPD received this 2015 Sea Grant award to support this innovative project creating and permitting leases for farming of the Mediterranean mussel (*Mytilus galloprovincialis*). As a member of VSE, the VPD would hold all required federal, state, and local permits and entitlements.

Increasing global population coupled with increased per capita seafood consumption result in constant, growing demand for seafood. Global seafood consumption reached 143 million metric tons in 2009, which is an increase of more than 20 million tons in 10 years (NOAA 2017a). According to the United Nations Food and Agriculture Organization, “with capture fisheries production stagnating, major increases in fish food production are forecast to come from aquaculture. Taking into account the population forecast, an additional 27 million tons of production would be needed to maintain the present level of per capita consumption in 2030” (FAO 2010). Experts at the United Nations Food and Agriculture Organization say that another 40 million tons of seafood worldwide per year by 2030 would need to be generated just to meet current consumption rates (NOAA 2017a). Seafood consumed in the United States comes from a variety of sources, including internationally imported seafood, United States wild capture fisheries, and United States aquaculture. However, over 91% (by value) is imported from foreign countries. In 2011, the United States trade deficit in seafood was approximately \$11.2 billion. The proposed project aims to increase the supply of safe, sustainably produced, and locally grown shellfish within the United States, thus, reducing the carbon footprint from shipping and aircraft transportation of seafood. The project at buildout would produce 9,000 to 11,000 tons of

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mussels for market per year. Shellfish aquaculture is environmentally sustainable relative to other forms of animal protein in the human diet, as mussel production requires no feed and very little freshwater, and it uses ocean areas rather than land for production. Shellfish cultivation cleans ocean water of pollutants from land-based agriculture (e.g., nitrogen and phosphorous), and mussels are a low-carbon footprint food product compared to other sources of animal protein. As the United States has some of the strictest environmental and food safety rules and regulations in the world, buying United States-grown farmed fish and shellfish guarantees that seafood purchased meets rigorous state and federal standards and supports American jobs (NOAA 2017a).

1.2 California Environmental Quality Act Compliance

The California Environmental Quality Act (CEQA) requires that any project in the State of California determined to have the potential to result in adverse impacts to the environment be analyzed under the CEQA guidelines and the results disclosed to the general public. A lead agency is determined under CEQA as the agency with greatest authority over the resources or land the proposed project is likely to impact, often a city, county, school district, or public resource agency.

The proposed project would be required to complete environmental review under CEQA, led by the California Fish and Game Commission (Commission) to identify and disclose potential environmental impacts related to the construction and operation of the proposed aquaculture facilities.

This initial study (IS) is a public document that assesses the environmental effects of the proposed VSE aquaculture operations in the Santa Barbara Channel, off the coast of the Ventura Harbor, as required by CEQA and in compliance with the state CEQA Guidelines. This IS serves as an informational document to be used in the local planning and decision-making process, and determines which environmental impact areas will be further analyzed in the Program Environmental Impact Report (PEIR). The PEIR would encompass all potential impact areas and conditions under VSE operations, and each 100-acre lease area would be considered a separate action for which consistency with the PEIR would be required. Under CEQA, a PEIR is an environmental impact report (EIR) that may be prepared on a series of actions that can be characterized as one large project and are related either:

1. Geographically;
2. As logical parts in the chain of contemplated actions;
3. In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or

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4. As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways (14 CCR 15168).

1.3 Project Planning Setting

The proposed project would be located in the open waters of the Santa Barbara Channel, within the 3-mile limit for state waters northwest of Ventura Harbor (Figures 1 and 2). The Santa Barbara Channel is nationally recognized as a diverse and biologically sensitive ecosystem. The Santa Barbara Channel extends from Point Conception to Point Mugu and is located in the Southern California Bight, an open embayment of the Pacific Ocean bound on the north by Point Conception and on the south by Cape Colnett in Baja California. The Southern California Bight extends offshore to the California current, a broad, southerly flowing current along the California coast. The four northern Channel Islands—San Miguel, Santa Rosa, Santa Cruz, and Anacapa—border the Santa Barbara Channel on the south. In 1980, Congress designated waters around the Northern Channel Islands as the Channel Islands National Marine Sanctuary (Santa Barbara Channelkeeper 2017).

The waters of the Santa Barbara Channel form one of the most biologically productive ecosystems found on Earth. Unlike most of coastal California, which faces due west and the open ocean, the coastal waters of the Santa Barbara Channel are on a south-facing coast and caught between two land masses, the South Coast and the Northern Channel Islands. The western section of the Santa Barbara Channel is a meeting place of the cool Northern California Current and warm Southern California Countercurrent. This type of ecosystem is called a “transition zone.” Transition zones are known to promote large concentrations of both biomass and species diversity, as they are the confluence between two or more ecologically distinct systems. In addition, upwelling provides unusually high concentrations of nutrients, especially macrozooplankton, which are one of the primary driving forces behind the Santa Barbara Channel’s biological productivity and diversity. Wind patterns around Point Conception and in the Santa Barbara Channel create these frequent seasonal upwellings, which force deep nutrient-laden ocean waters to rise up the water column into the biologically rich euphotic zone (Santa Barbara Channelkeeper 2017).

1.4 Public Review Process

CEQA establishes mechanisms whereby the public and decision makers can be informed regarding the nature of a proposed project and the extent and types of impacts that the project and its alternatives would have on the environment, should the project or alternatives be implemented. Pursuant to Section 15082 of the CEQA Guidelines, the Commission circulated a Notice of Preparation (NOP) of a PEIR that includes this IS dated September

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[insert date], to interested agencies, organizations, and parties. The NOP was also sent to the State Clearinghouse at the California Governor's Office of Planning and Research. The CEQA Guidelines establish a 30-day public NOP review duration. Public review for the NOP began on September [insert date], and ended on October [insert date].

The NOP is intended to encourage interagency communication regarding the proposed project so that agencies, organizations, and individuals are afforded an opportunity to respond with specific comments and/or questions regarding the scope and content of the PEIR. A public scoping meeting was first noticed on September [insert date], and was held by the Commission and VPD on October [insert day and date], from [insert meeting start and finish times] at the [insert meeting location]. The purpose of this meeting was to provide the public and governmental agencies with information on the proposed project and the CEQA process, and to give attendees an opportunity to identify environmental issues that should be considered in the PEIR. Attendees were invited to mail or email their comment letters to the Commission during the 30-day NOP public review period by no later than [insert time] on [insert date].

The Commission, VPD, and the VSE partners held a kickoff interagency pre-application meeting with the various regulatory agencies on February 9, 2017, to gather input and guidance regarding agency concerns, prior to submitting permit applications. Additionally, VSE conducted public workshops Spring 2017 to inform and engage the public concerning the project, materials related to which are available on the VSE website: <http://venturashellfishenterprise.com/index.html>.

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2 SUMMARY OF FINDINGS

The Commission is the lead agency pursuant to CEQA and is responsible for analyzing and approving the proposed VSE project (proposed project or project) CEQA document. The Commission has determined that a PEIR is the appropriate environmental document for CEQA compliance. This finding is based on the IS / environmental checklist (Section 3, Initial Study Checklist), prepared for the proposed project. CEQA (California Public Resources Code, Section 21000 et seq.) requires the preparation of a PEIR for any project that a lead agency determines may have a significant impact on the environment. According to Section 21002.1(a) of the CEQA statutes, “The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.” CEQA also establishes mechanisms whereby the public and decision makers can be informed about the nature of the project being proposed, and the extent and types of impacts that the project and its alternatives would have on the environment if they were to be implemented.

2.1 Environmental Factors Potentially Affected

Based on the scope of the proposed project, the following environmental factors were determined to be potentially significant in Section 3, Initial Study Checklist, and would be evaluated further in the PEIR:

- Air Quality
- Biological Resources
- Greenhouse Gas (GHG) Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Traffic

2.2 Environmental Determination

The Commission finds that the potentially significant effects have been identified, and these topics will be further analyzed within the PEIR. Additionally, recommended mitigation measures will be implemented as feasible and appropriate for these topics. This IS has been prepared to satisfy the requirements of CEQA and the CEQA Guidelines §15063 and using Appendix G to the CEQA Guidelines.

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3 INITIAL STUDY CHECKLIST

1. Project Title:

Ventura Shellfish Enterprise

2. Lead Agency Name and Address:

California Fish and Game Commission
1416 Ninth Street, Suite 1320
Sacramento, California 95814

3. Contact Person and Phone Number:

Susan Ashcraft, Marine Advisor
California Fish and Game Commission

4. Project Location:

The project leases would be located in open water within the 3-mile limit for state waters northwest of Ventura Harbor. The project is proposing approval of 20 100-acre growing sites, of which 20 would be activated and would occupy a total project area of 2,000 acres. These individual sites would fall within a broader area. The area of interest, or candidate area, is 18,533 acres. This area is generally located between the Ventura Harbor entrance and the Ventura County–Santa Barbara County line to the north and south, and between the 60-foot depth contour inshore and the 3-mile state water boundary offshore. The specific location of the 20 individual 100-acre growing parcels within the larger candidate area would be developed collaboratively with regional marine stakeholders in recognition of the need for state water bottom to accommodate multiple interests and natural functions.

Successful shellfish projects depend foremost on location in an appropriate growing area. To identify the previously described large candidate areas, the project utilizes methodology developed at the University of California, Santa Barbara, Bren School for Environmental Science and Management for quantitative marine spatial planning specific to the needs of shellfish aquaculture. This methodology was used to evaluate the marine environment adjacent to the Ventura Harbor. This model maps the marine environment with respect to suitability for a shellfish operation using stacked layers of mapping data. Areas constrained for use—such as navigation pathways, marine protected areas (MPAs), areas of hard rocky bottom representing Essential Fish Habitat, oil and gas leases, and existing infrastructure (e.g., telecommunication cables and municipal wastewater

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discharge pipelines)—were identified and these areas removed from consideration. Biological and abiological ocean data layers of temperature, chlorophyll concentration, and current were applied to remaining areas as a proxy for shellfish production suitability. New maps with finer resolution illustrated candidate zones, which were evaluated for suitability for the project.

5. Project Sponsor’s Name and Address:

Ventura Port District
1603 Anchors Way Drive
Ventura, California 93001

6. General Plan Designation:

N/A

7. Zoning:

N/A

8. Description of Project (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):

Lease Area

VSE is a multi-party collaborative established for the purpose of open water shellfish cultivation for landing in the Ventura Harbor. The proposed project would consist of 20 active 100-acre plots in state waters of the Santa Barbara Channel in sandy bottom areas located northwest of Ventura Harbor, as shown on figures 1 and 2. The sites would be used for growing the Mediterranean mussel via submerged long lines. The mussels would be grown and harvested by project growers/producers and landed at Ventura Harbor.

Construction

The project proposes to utilize established protocols and gear for offshore cultivation referred to as the submerged long line method. This consists of a horizontal structural header line, or “backbone,” that is attached to the seafloor by sand screw anchors at each end, and is marked and supported by a series of buoys along the central horizontal section. Buoys marking the location of the sand screw anchors describe the total cultivation area for navigational safety and would comply with all regulations for height,

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illumination, and visibility, including radar reflection. Buoys attached to the central horizontal portion of the backbone line support the line, provide means via lifting of the backbone line to access the cultivation ropes, and determine the depth of the submerged backbone. The depth of the backbone would vary seasonally from 15–45 feet below the surface (Figure 3). All surface buoys would be uniquely colored for each operator and marked with the grower/producer name and phone number.

The long line configuration produces a fairly rigid tensioned structure from which the cultivation ropes, or “fuzzy ropes” are attached. Fuzzy ropes are characterized by extra filaments that provide settlement substrate for mussels to attach. Fuzzy ropes may be attached to and suspended from the backbone rope either as individual lengths or as a continuous looping single length that drapes up and down over the backbone. The length of each section or loop of fuzzy cultivation loop would be approximately 20 feet but would depend on the lifting capacity of the servicing vessel. The length of the central horizontal section of backbone line would be approximately 600 feet, which would support approximately 8,000–10,000 feet of fuzzy cultivation line.

The shape of each of the 100-acre cultivation parcels would be a function of the geometry of the submerged backbone line and anchoring. Each horizontal section of the longline would be approximately 600 feet and would require an anchor scope of approximately 2.5 times depth. Therefore, in 100 feet of water depth, scope from the horizontal section of backbone to the sand screw anchor would require 250 feet on each end of the line, making a total length of 1,100 feet from sand screw to sand screw. A 100-acre parcel with rectangular dimensions of 1,200 feet by 3,600 feet would therefore accommodate up to 36 individual longlines with spacing between longlines of 100 feet. The submerged longline growing gear configuration would be specifically engineered for open ocean conditions with respect to size and strength of all line, anchoring, hardware, and buoyancy.

Operation

Juvenile seed mussels, commonly referred to as spat, would be purchased from onshore hatcheries certified by the CDFW; no wild spat would be collected for the project. At the hatcheries, mussels adhere directly to special textured ropes that promote mussel attachment and growth. When the seed are firmly settled to ropes, the ropes are covered with cotton socking material to protect them from shaking off the ropes during transport to the offshore growing site and deployment. The socks hold the spat next to the rope until the mussels naturally attach with their byssal threads, after which the cotton material naturally degrades. Cultivated mussels grow by filtering naturally occurring phytoplankton from the ocean. Juvenile mussels will grow on lines until an intermediate

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size where the density of mussels on the fuzzy rope becomes limiting. At this point, a servicing vessel will lift the backbone line to access the fuzzy rope stocked with juvenile mussels and pulls the fuzzy rope through vessel based equipment designed to strip the mussels from the fuzzy rope and then clean, separate, and grade the juvenile mussels by size. Juvenile mussels are then restocked to clean fuzzy rope at a reduced density for their second stage of grow out to market size. At market size, which is expected to occur in about 1 year of total production time, the submerged backbone lines are again lifted to access the fuzzy cultivation ropes, and mussels are again stripped from the line, cleaned, and separated, and this time size graded and bagged. All of these harvesting activities would take place aboard the harvesting vessel. The bagged mussels would be transported to Ventura Harbor for offloading, sale, and distribution.

Watercraft used for planting, inspections, and harvesting would be home ported at Ventura Harbor. On average, between 20 to 40 boats would be traveling to the specific lease sites to conduct these activities on a three times per week to daily basis. The maximum distance traveled would be between the harbor and the farthest potential lease area, which could be up to approximately 16 miles.

Gear and planted ropes would be inspected regularly as part of a comprehensive monitoring plan, but generally, the planted ropes would only be manipulated during initial stocking, intermediate harvest and restocking, and final harvest. Inspection would involve monitoring the all hardware and rigging and surface buoys and their tension, and checking for escaped gear and potential entanglements. Examples of possible observations that would trigger concern and further investigation are: (1) gaps or tangling of dropper ropes detected on depth finder or other structural anomalies; (2) fouling by objects or other marine debris detected in support buoys or buoy deployment lines; and (3) loss of function or damage to devices related to navigational safety. Furthermore, monitoring would be conducted to evaluate the project's potential effects on the seafloor and benthic environment beneath and in the vicinity of the facilities, including biological physical and chemical conditions; wildlife interactions (e.g., marine mammals, sea turtles, fish, and seabirds); and marine debris, including lost and broken gear. The monitoring program and protocols would be vetted with input and coordination among the regulatory agencies and would include annual reports summarizing the previous year's implemented project activities and all activities that have been implemented since the start of the project, within the designated monitoring period and all monitoring results.

The project would incorporate a number of other resource protection measures that avoid and minimize impacts on the aquatic environment. These resource protection measures would include best management practices (BMPs) related to carrying

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capacity, seed supply, sediment quality, predator and wildlife interactions, and storage and disposal of aquaculture gear. The BMPs would be incorporated in project permit conditions and/or mitigation measures and implemented by individual growers/producers. The aquatic environment would benefit from a cumulative beneficial effect of these BMPs resulting from the programmatic nature of the project. For example, there would be unique opportunities for a programmatic monitoring plan among the 20 lease areas that would provide a more comprehensive dataset compared to project-by-project permitting and would also reduce individual efforts. Proposed operational BMPs are described in Table 1.

Table 1
Ventura Shellfish Enterprise Best Management Practices

Measure	Description of Measure
Carrying capacity – 1	Make use of best available data to define the location of a farm and its maximum stocking density.
Carrying capacity – 2	Include in overall management plan a component that describes the corrective or collaborative actions to be taken when production carrying capacity at the farm or ecosystem level is exceeded.
Seed supply – 1	Initial plantings will only use hatchery-reared mussel spat certified by CDFW.
Sediment quality – 1	Monitor sediment conditions according to the requirements of all permits.
Sediment quality – 2	Adopt corrective actions in cases where significant adverse impacts are identified by the sediment monitoring program.
Wildlife – 1	Produce a written Marine Wildlife Entanglement Plan that identifies policies and procedures that will be followed to monitor for marine wildlife entanglements and report and remedy any such entanglements if they occur.
Wildlife – 2	Use humane methods of predator deterrence and actively favor non-lethal methods.
Wildlife – 3	No controls, other than non-lethal exclusion, shall be applied to species that are listed as threatened or endangered.
Storage and disposal of supplies – 1	Fuel, lubricants and chemicals shall be labeled, stored and disposed of in a safe and responsible manner, and marked with warning signs.
Storage and disposal of supplies – 2	Precautions shall be taken to prevent spills, fires and explosions, and procedures and supplies shall be readily available to manage chemical and fuel spills or leaks.
Storage and disposal of supplies – 3	Include in overall management plan an aquaculture gear monitoring and escapement plan. Any farm gear that has broken lose from the farm location shall be retrieved.

Source: Adapted from Global Aquaculture Alliance. "Aquaculture Facility Certification, Mussel Farms, Best Aquaculture Practices Certification Standards, Guidelines," Version 1, 2013, bap.gaalliance.org/wp-content/uploads/sites/2/2015/02/BAP-MusselF-813.pdf. Accessed 30 September 2016.

The proposed project would serve to diversify the catch and stabilize the fishing fleet home-ported at Ventura Harbor; provide a locally cultivated, sustainably raised food source; and advance state and national goals and objectives for increased domestic aquaculture and a secure food supply. This project is supported, in part, through the NOAA Sea Grant program, the goal of which is to contribute to "a safe, secure and sustainable supply of seafood to meet public demand." At full buildout, each of the 20

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proposed growing areas would accommodate an estimated 36 longlines, each of which are designed to support 8,000 feet of growing line, which in turn can produce four pounds of harvest size mussels per foot of line, or 32,000 pounds of harvest mussel per longline. It is reasonable to estimate each parcel producing 900,000 to 1,100,000 pounds of market size mussels per year with a dockside wholesale value of \$2.2–2.8 million at current market rates of \$2.50 per pound. Therefore, at full cultivation of all 20 sites, 18 to 22 million pounds of high value, sustainably produced mussels with a value of \$45–55 million could be landed and distributed from the Ventura Harbor.

The project is a unique approach to developing environmentally and economically sustainable shellfish commerce with product landed at the Ventura Harbor. The project proposes to produce bivalve shellfish in the offshore marine environment, cultivation practices that, while well-established worldwide, are in their infancy in the United States, particularly on the West Coast. Furthermore, the project is working cooperatively in an open-source format with state and federal regulators to establish a template for additional future shellfish growing operations in California. The proposal to permit a group of 20 100-acre growing plots allows for growing opportunities available to VSE coop member/producers, anticipated to include existing commercial fishermen based in Ventura Harbor, existing commercial shellfish businesses, and startups who might otherwise be precluded because of the significant regulatory burden of obtaining the required government approvals. The scale of the project also allows the individual grower/producers to benefit from centralized environmental monitoring, product safety testing and product marketing. As a requirement of their participation, growers/producers would be obligated to operate under robust environmental monitoring guidelines and BMPs incorporated into project entitlements and adopted from third-party certification agencies. CDFW personnel would be responsible for growing area patrol and enforcement. They would collaborate with California Department of Public Health (CDPH) on defining the specifics of patrol activities. This project as it is scaled is also intended to bolster the working waterfront in Ventura Harbor, providing economic benefits to the VPD, its tenants, and the community.

The project offers a number of other benefits related to food supply since at present the mussel market in the United States and locally is dominated imports from Canada, Chile, New Zealand, and Europe. The project would supply a locally grown mussel product to an established market with the potential for expansion. Cultivating mussels off the California coast is also in keeping with federal policy to improve domestic food security. Additionally, mussels provide a high-protein, low-fat source of human nutrition. Compared with other cultivated protein sources, mussels use far less of our limited freshwater resources.

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The proposed project would be required to include a decommissioning plan, which provides for removing all equipment and structures in each lease area associated with the project activities when activities in that lease are terminated.

The project would be consistent with California's Aquaculture Development Act (Public Resources Code sections 826–828), which encourages the practice of aquaculture to augment food supplies, expand employment, promote economic activity and protect and better use the land and water resources of the state. The project would also be consistent with Assembly Joint Resolution 43 (2014), wherein the Legislature states its support “to protect existing shellfish beds and access to additional acreage for shellfish farming and restoration.” Furthermore, the project would be consistent with NOAA's National Shellfish Initiative¹ and National Marine Aquaculture Policy,² which seek to increase populations of bivalves in coastal waters through commercial aquaculture production and acknowledge the multiple benefits of shellfish aquaculture, including providing new jobs and business opportunities, meeting the growing demand for seafood, and providing habitat for important species. Finally, the project furthers the goals of the National Ocean Policy Implementation Plan,³ one of which is to increase efficiencies in the permitting process and encourage agency coordination to facilitate additional marine aquaculture development.

Objectives of the proposed project are as follows:

1. To increase the supply of safe, sustainably produced, and locally grown shellfish while minimizing potential negative environmental impacts;
2. To enhance and sustain Ventura Harbor as a major west coast fishing port, support the local economy, and provide funding to maintain maintenance dredging critical to Ventura Harbor;
3. To provide economies of scale, pre-approved lease area, and technical support to include small local producers who would not otherwise be able to participate in shellfish aquaculture;
4. To advance scientific knowledge and state-of-the-art aquaculture practices through research and innovation;
5. To establish aquaculture that uses nutrients readily available in local waters;

¹ NOAA's National Shellfish Initiative fact sheet - http://www.nmfs.noaa.gov/aquaculture/docs/policy/natl_shellfish_init_factsheet_summer_2013.pdf

² NOAA National Marine Aquaculture Policy - http://www.nmfs.noaa.gov/aquaculture/docs/policy/noaa_aquaculture_policy_2011.pdf

³ The National Ocean Implementation Plan - https://obamawhitehouse.archives.gov/sites/default/files/national_ocean_policy_implementation_plan.pdf

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6. To use proven efficient technology that is commercially available and viable;
7. To provide for comprehensive planning for offshore aquaculture uses that would utilize Ventura Harbor to minimize user conflicts where feasible.

On-Shore Ancillary Operations

The VPD, owner and operator of Ventura Harbor, would receive lease revenues and landing fees for mussels brought to the harbor for off-loading plus ancillary economic benefits of having producer/farmers based at the harbor. These new funds would assist the VPD in continuing to meet its mission, which includes providing a safe and navigable harbor and a seaside destination that benefits residents, visitors, fisherman, and boaters with harbor facilities, events, and services.

Other than the approximate \$45 million to \$55 million in revenue from mussels landed and distributed from the Ventura Harbor, secondary economic benefits to VPD as a result of the proposed project include, but are not limited to: direct retailing of mussel product within the harbor seafood restaurants and retailers; commercial boatyard activity related to maintenance of a producer vessel fleet; storage sales and maintenance of producer gear; secondary contracts related to installation and maintenance of mussel lines; and indirect benefits related to the tenancy of produces and support industry associated with the project.

Ancillary operations on-shore related to the proposed project would be consistent with both existing and historic operational uses at Ventura Harbor. No new infrastructure would be required at the harbor to support project operations.

9. Surrounding Land Uses and Setting (Briefly describe the project's surroundings):

The proposed project would be surrounded by open waters of the Pacific Ocean within the 3-mile limit for state waters northwest of Ventura Harbor. Uses in the surrounding area include commercial fishing, recreational fishing, and recreational boating.

The ocean bottom in the proposed project area is owned by the State of California with leasing authority vested in the Commission.

10. Other Public Agencies Whose Approval is Required (e.g., permits, financing approval, or participation agreement):

The Commission would have approval authority for the leasing of the approximately 2,000-acre offshore state water bottoms area, and VPD would have approval authority over individual leases and operations of the proposed project. The following other public agencies approval/required permits and entitlements include but may not be limited to:

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- California Coastal Commission (CCC) (Coastal Development Permit Application / Coastal Act)
- U.S. Army Corps of Engineers (ACOE) (Nationwide Permit or Regional General Permit)
- U.S. Fish and Wildlife Service (USFWS) (Letter of Concurrence or Biological Opinion, under Section 7 of the Endangered Species Act (ESA), and Fish and Wildlife Coordination Act)
- National Marine Fisheries Services of the NOAA (Section 7 of the ESA)
- NOAA National Ocean Service (Consultation regarding management and trust responsibilities for National Marine Sanctuaries, under Section 302 of the Marine Protection, Research and Sanctuaries Act of 1972)
- NOAA Office of National Marine Sanctuaries (Letter of Concurrence or Biological Opinion, under Section 7 of the ESA, Magnuson-Stevens Act, Marine Mammal Protection Act, and Fish and Wildlife Coordination Act)
- U.S. Coast Guard (Private Aid to Navigation (PATON) Permit, 33 CFR Part 66)
- California Fish and Game Commission (application for an aquaculture lease for state water bottoms)
- CDFW (aquaculture registration approval and fee, California ESA Take Permit, Standard Live Fish Importation Permit (Title 14 California Code of Regulations), Long-term Live Fish Importation Permits, Health Inspections for importation of live organisms into California Certificate, Wild Broodstock Collection Permit, Permit for Exotic or Restricted Species, Addition of species to individual certificates of registration, Aquarium Dealers Permit, Marine Life Protection Act (MLPA))
- California State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) (obtain a Section 401 Water Quality Certification from the SWRCB)
- California Department of Health Services (Classification and Certification of Growing Waters, Shellfish Handling and Marketing Certificate)
- California Department of Food and Agriculture (CDFA) (Weighmaster License Application)
- California State Lands Commission (Approval of State Water Bottom Leases)
- California State Office of Historic Preservation (Cultural Resources)

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology and Soils |
| <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Hydrology and Water Quality |
| <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Transportation and Traffic | <input type="checkbox"/> Utilities and Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

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DETERMINATION: (To be completed by the lead agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Signature

Date

Initial Study Checklist for the Ventura Shellfish Enterprise Project

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. **Earlier Analysis Used.** Identify and state where they are available for review.
 - b. **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. **Mitigation Measures.** For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures that were incorporated or

Initial Study Checklist for the Ventura Shellfish Enterprise Project

refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans and zoning ordinances). Reference to a previously prepared or outside document should include, where appropriate, a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 10. The significance criteria or threshold, if any, used to evaluate each question; and
 11. The mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
II. AGRICULTURE AND FORESTRY RESOURCES – Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrologic interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Cause inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial Study Checklist for the Ventura Shellfish Enterprise Project

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XI. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVI. TRANSPORTATION/TRAFFIC – Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with an applicable congestion management program (CMP), including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable RWQCB?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Initial Study Checklist for the Ventura Shellfish Enterprise Project

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.1 Aesthetics

a) Would the project have a substantial adverse effect on a scenic vista?

The proposed project would establish a commercial offshore bivalve aquaculture operation within the 3-mile limit for state waters northwest of Ventura Harbor. As previously outlined in the project description, the project is proposing 20 100-acre growing sites occupying a total project area of 2,000 acres. These individual sites would fall within a broader area, being the area of interest, or candidate area, which is 18,533 acres. This area is generally located between the Ventura Harbor entrance and the Ventura County–Santa Barbara County line to the north and south, and between the 60-foot depth contour inshore and the 3-mile state water boundary offshore.

Visual effects from the proposed project during construction and operation would include changes in visual character to the project area due to the presence of mariculture workers and vessels and the addition of shellfish culture equipment within the project area of the Pacific Ocean. However, the project site would be located at least 0.5 mile from the nearest scenic vista vantage point. The presence of project-related vessels and shellfish culture workers and equipment is not expected to have an adverse effect on a scenic vista, because afforded visibility of workers and vessels from the shoreline would be very small

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in scale compared to the expansive Pacific Ocean and would be consistent in type with existing commercial fishing activities in the area. The proposed operational equipment would be submerged, with the exception of buoys and navigational aids, which would lay at the water surface with a maximum elevation of approximately 2 feet.

Watercraft used for planting, inspections, and harvesting would be home ported at Ventura Harbor. On average, between 20 to 40 boats would be traveling to the specific lease sites to conduct these activities on a three times per week to daily basis. The maximum distance traveled would be between the harbor and the farthest potential lease area, which could be up to approximately 16 miles. On-shore ancillary operations associated with the proposed project would be consistent with existing and historic operations of the harbor. No new infrastructure on-shore is proposed as part of the project.

Implementation of the proposed project would not block or shield any existing views of the Pacific Ocean or any scenic vistas from public vantage points. Therefore, impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The project site would be within the Santa Barbara Channel of the Pacific Ocean. The proposed project would not affect or block views of any designated scenic resources. The closest designated scenic highways to the project site are State Route 1, also known as Pacific Coast Highway, which runs along the California Pacific coastline; and U.S. Route 101, which at times runs concurrently with State Route 1 through Ventura and Santa Barbara counties. Both designated scenic highways are approximately 0.5 mile east of the project site at the closest point. Due to the distance of the project site from the closest scenic highways, and the nature of the proposed project as discussed in 3.1a), **no impact** would occur. This topic will not be further addressed in the PEIR.

c) *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

Visual effects from the proposed project would include the presence of mariculture workers and vessels and the addition of shellfish culture equipment within the project area of the Pacific Ocean. However, as previously described under threshold a), the project site would be of a type consistent with existing commercial fishing activities in the area. Views of the proposed project during both construction and operational phases would be subordinate to the expansive views of the Pacific Ocean, thereby rendering them difficult to see from typical vantage points. Recreational boaters, and similar off-

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shore recreational activities available to the public would be able to identify the proposed project area when navigating around the site or in the nearby area because of boundary markers. However, majority of the project related equipment would be submerged, except for the buoys and navigational aids, which would lay at the water surface, with a maximum elevation of approximately 2 feet.

Watercraft used for planting, inspections, and harvesting would be home ported at Ventura Harbor. On average, between 20 to 40 boats would be traveling to the specific lease sites to conduct these activities on a three times per week to daily basis. The visual effect of increased worker and vessel traffic would be consistent in type and nature as current conditions, which includes commercial and sports fishing vessels and facilities. Impacts associated with visual character and quality of the project site and surrounding areas would be **less than significant**. This topic will not be further addressed in the PEIR.

d) ***Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?***

Potential lighting and glare associated with the proposed project would result from buoy reflection, vessel lighting, and safety lighting for workers. No nighttime operations, project site visits, or artificial lighting would occur, except for lighting or reflection markers associated with the use of navigational safety buoys required by the U.S. Coast Guard. Although the project would include late evening or (very) early morning activities, these activities would not include the use of flood-lighting or similar.

Proposed buoys marking the location of the sand screw anchors and lease boundaries would describe the total cultivation area for navigational safety, and would comply with all regulations for height, illumination, and visibility, including radar reflection. All surface buoys would be uniquely colored for each operator and marked with the grower/producer name and phone number. These would not be visible from the shore.

All lighting sources as a result of the proposed project would be similar and consistent with existing nighttime lighting in the project area. Existing sources of light at the shoreline include lighting of restaurants, offices, restroom facilities and safety-related lighting on the docks. Due to the distance from the project site to the shoreline, project-related lighting would not have substantial adverse effects on nighttime views. The project does not propose any additional on-shore lighting. Therefore, impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

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3.2 Agriculture and Forestry Resources

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

According to the Food and Agriculture Organization of the United States, aquaculture or farming in water is the aquatic equivalent of agriculture or farming on land. Defined broadly, agriculture includes farming both animals (animal husbandry) and plants (agronomy, horticulture, and forestry in part). Similarly, aquaculture covers the farming of both animals (including crustaceans, finfish, and mollusks) and plants (including seaweeds and freshwater macrophytes). While agriculture is predominantly based on use of freshwater, aquaculture occurs in both inland (freshwater) and coastal (brackishwater, seawater) areas (FOA 2017).

The project site is not in agricultural use and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and would not convert designated farmland to a non-agricultural use (California Department of Conservation 2016). Rather, the proposed project would have a beneficial effect on agricultural resources by increasing the footprint of shellfish culture on the California Coast. As the proposed project would not convert designated Farmland Mapping and Monitoring Program (FMMP) areas to non-agricultural uses, **no impact** would occur. This topic will not be further addressed in the PEIR.

- b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The project site is designated within State of California waters and is not zoned for agricultural use (City of Ventura 2016). In addition, as it is open water, the project site is not under a Williamson Act contract. The proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

- c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

The project site is designated within State of California waters and is not zoned for forest land or timberland (City of Ventura 2016). The proposed project would not conflict with

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or cause rezoning of land zoned as forest land, timberland, or timberland production. Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

- d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

As previously described, the project site is not zoned for forest land and therefore would not result in the loss or conversion of forest land. **No impact** would occur. This topic will not be further addressed in the PEIR.

- e) *Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

As described under threshold a), the project site is not in agricultural use and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and would not convert designated farmland to a non-agricultural use (California Department of Conservation 2016). Similarly, surrounding areas of the Pacific Ocean are not designated as farmland areas under the FMMP. Activities in the project area include commercial fishing, recreational boating, and recreational fishing. Implementation of the proposed project would convert an area of the Pacific Ocean to aquaculture uses, specifically, shellfish cultivation. Operational activities associated with the proposed project would be consistent with existing uses in the area and would not result in the conversion of agricultural uses to non-agricultural uses. Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

3.3 Air Quality

- a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The proposed project area is located in the South Central Coast Air Basin, which includes all of Ventura County, and is within the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD). The VCAPCD Board adopted the 2016 Ventura County Air Quality Management Plan (AQMP) on February 14, 2017. The 2016 AQMP presents Ventura County's strategy to attain the 2008 federal 8-hour ozone standard by 2020 as required by the federal Clean Air Act Amendments of 1990 and applicable Environmental Protection Agency clean air regulations (VCAPCD 2016).

Related to the proposed project, the AQMP outlines the Ventura County Marine Emissions Inventory, which includes marine emission sources in both the State Tidelines

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region of Ventura County and those in the Outer Continental Shelf Air Basin. Marine-related activities include ocean-going vessels, commercial harbor craft, and recreational boats. Emission sources related to marine activities are a significant part of the overall base year emissions inventory for Ventura County (VCAPCD 2016).

Watercraft used for planting, inspections, and harvesting would be home ported at Ventura Harbor. On average, between 20 to 40 boats would be traveling to the specific lease sites to conduct these activities on a three times per week to daily basis. The maximum distance traveled would be between the harbor and the farthest potential lease area, which could be up to approximately 16 miles.

As a result of increased boat traffic, there would be a net increase in emissions of particulate matter from vessel engines. The proposed project would also involve an increased number of vehicle trips because of additional truck trips to accommodate the increase in shellfish harvest production, and employee trips in and out of the harbor. Implementation of the proposed project would result in **potentially significant impacts** to air quality as a result of vessel and vehicle emissions associated with the proposed project. The PEIR will further address air quality impacts and will recommend mitigation measures if necessary.

- b) *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

As described under the previous threshold, implementation of the proposed project could result in **potentially significant impacts** to air quality as a result of vessel and vehicle emissions associated with the project. This topic will be further analyzed in the PEIR.

- c) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?*

As discussed under thresholds a) and b), the proposed project could result in **potentially significant impacts** to air quality, including cumulatively considerable impacts. Project consistency with the VCAPCD's AQMP and cumulative air quality impacts will be further analyzed in the PEIR.

- d) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Sensitive receptors include certain population groups that are considered particularly sensitive to air pollutants, such as those in schools, hospitals, residential areas, and

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daycare centers. The closest sensitive receptor would be on-shore, approximately 2,300 feet from the project site at the closest point. All activities associated with the proposed project would be similar to existing commercial fishing operations around the project area and are not expected to expose sensitive receptors to substantial pollutant concentrations. However, as discussed in the analysis to the previous thresholds, implementation of the proposed project has the potential to result in **potentially significant impacts** to air quality. The PEIR will further address air quality impacts.

e) ***Would the project create objectionable odors affecting a substantial number of people?***

The proposed project site would be used for growing the Mediterranean mussel via submerged long lines. The mussels would be grown and harvested by project growers/producers and landed at Ventura Harbor. Odors associated with the proposed project would be comparable to ongoing fishing and harvesting operations out at sea and in the harbor. Vessels associated with the proposed project could generate diesel odors but would not be expected to substantially increase odors as compared to existing conditions and would not be located in closer proximity to any odor-sensitive uses than existing commercial fishing operations. Impacts related to objectionable odors would be **less than significant**. This topic will not be further addressed in the PEIR.

3.4 Biological Resources

a) ***Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?***

Numerous fish, bird, and marine mammal species utilize waters of the Pacific Ocean within the project area. There is the potential for endangered, threatened, and sensitive marine species such as blue, gray, and humpback whales; southern sea otter; southern steelhead; marbled murrelet; and brown pelican as well as a variety of dolphin and fish species to be impacted as a result of the proposed project. Potential biological issues include incorporation of shellfish equipment such as the long line configurations, construction impacts on the seafloor, deposition and accumulation of biological materials on the seafloor during operation, invasive fouling organisms, and potential for marine mammal entanglement in aquaculture gear.

Table 2 below outlines biological concerns as a result of project implementation, with the associated level of potential (low, medium, high).

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Table 2
Biological Concerns and Level of Potential

Biological Concerns	Level of Potential
Release of viable non-native reproductive material by cultivated specimens	Low
Release of potentially invasive species, parasites, and pathogens from seed stock	Low
Removal of phytoplankton from the water column	Low
Effects of equipment on water column habitat	Low
Construction impacts on the seafloor	Low to medium
Deposition and accumulation of biological materials on the seafloor during operation	Low to medium
Invasive fouling organisms	Medium
Potential for ship strikes of marine wildlife	Low
Potential for marine mammal entanglement in aquaculture gear	Low to medium

MPAs were created to fulfill California’s landmark MLPA and were designed through a public policy process. The goals of MPAs are to restore ocean life threatened by overfishing, pollution, and habitat destruction, with the objective to create safe havens for marine wildlife to reproduce, grow, and replenish adjacent areas, leading to stronger and more resilient marine ecosystems overall. Although there are 19 MPAs within the Santa Barbara Channel surrounding the project area (5 along the coast and 14 surrounding the Channel Islands), the project is not located within any MPA designations, including State Marine Reserve, State Marine Conservation Area, State Marine Park, or State Marine Recreational Management Area. Additionally, there are seemingly no proposed or planned MPAs under the MLPA located within the project area, or Areas of Special Biological Significance as defined by the California RWQCB. According to the CDFW MPA Mobile Map resource, the nearest MPAs located to the project site are the Campus Point State Marine Conservation Area, Goleta Slough State Marine Conservation Area, Anacapa Island State Marine Conservation Area, Anacapa Island State Marine Reserve, and Santa Barbara Channel Ecological Preserve and Buffer, which is zoned for multiple use as defined by NOAA (CDFW 2014)(NOAA 2017b).

The waters of the Santa Barbara Channel form one of the most biologically productive ecosystems found on Earth. Unlike most of coastal California, which faces due west and the open ocean, the coastal waters of the channel are on a south-facing coast and caught between two land masses, the South Coast and the Northern Channel Islands. The western section of the channel is a meeting place of the cool Northern California Current and warm Southern California Countercurrent. This type of ecosystem is called a “transition zone” (Santa Barbara Channelkeeper 2017). Transition zones are known to

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promote large concentrations of both biomass and species diversity, as they are the confluence between two or more ecologically distinct systems. In addition, upwelling provides unusually high concentrations of nutrients, especially macrozooplankton, which are one of the primary driving forces behind the channel's biological productivity and diversity. Wind patterns around Point Conception and the channel create these frequent seasonal upwellings, which force deep, nutrient-laden ocean waters to rise up the water column into the biologically rich euphotic zone (the upper sunlight zone of the sea, less than 120 meters from the surface) (Santa Barbara Channelkeeper 2017). Each MPA was designated to set aside a particularly special area of this ecologically rich marine environment to create a robust network of protection covering over 350 square miles (Santa Barbara Channelkeeper 2017).

As previously stated, the proposed project would incorporate a number of other resource protection measures that avoid and minimize impacts on the aquatic environment. These resource protection measures would include BMPs related to carrying capacity, seed supply, sediment quality, predator and wildlife interactions, and storage and disposal of aquaculture gear. The BMPs would be incorporated in project permit conditions and/or mitigation measures and implemented by individual growers/producers. A programmatic monitoring plan would be developed across the 20 active lease areas that would provide comprehensive data, as compared to project-by-project monitoring and would also reduce individual efforts. Proposed BMPs were previously described in the project description. However, potential impacts could result such as possible entanglement with marine organisms, particularly larger marine mammals, increased noise from installation and operations within the marine environment, and as a result of potential debris from organisms.

The Mediterranean mussel proposed for the aquaculture is considered a naturalized species. While not a native to the local waters, it has become an adapted organism in the ecosystem from which no aggressive demonstrable harm has resulted for native species (i.e., while it is competition, it has not invaded or mass colonized areas, or been unsuitable for predation by native species). According to the Blue Ocean Institute, Mediterranean mussels are well established and have not had negative effects on local ecosystems. Mediterranean mussels feed by filtering water for plankton and nutrients, so no fishmeal or fish oil is needed to raise them (Blue Ocean Institute 2005).

Potentially significant impacts to marine species could occur as a result of the proposed project. The PEIR will further address biological impacts.

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- b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?*

As discussed under threshold a), numerous fish, bird, and marine mammal species utilize waters of the Pacific Ocean within the project area. As previously described under threshold a), there is the potential for endangered, threatened, and sensitive marine species such as blue, gray, and humpback whales; southern sea otter; southern steelhead; marbled murrelet; and brown pelican as well as a variety of dolphin and fish species to be impacted as a result of the proposed project. Potential biological issues include incorporation of shellfish equipment such as the long line configurations, construction impacts on the seafloor, deposition and accumulation of biological materials on the seafloor during operation, invasive fouling organisms, noise changes in the water column during installations and operational activities, and potential for marine mammal entanglement in aquaculture gear.

The project area is currently and was historically used for trawling grounds by commercial fisheries. The proposed candidate area for aquaculture leases has not previously been used for aquaculture. As previously stated in threshold a), the project is not located within any designation of MPA designations, including State Marine Reserve, State Marine Conservation Area, State Marine Park, or State Marine Recreational Management Area. Additionally, there are seemingly no proposed or planned MPAs under the MLPA located within the project area, or Areas of Special Biological Significance as defined by the California RWQCB. According to the CDFW MPA Mobile Map resource, the nearest MPAs located to the project site are the Campus Point State Marine Conservation Area, the Goleta Slough State Marine Conservation Area, the Anacapa Island State Marine Conservation Area and the Anacapa Island State Marine Reserve, the Santa Barbara Channel Ecological Preserve and Buffer, which is zoned for multiple use as defined by NOAA.

Potentially significant impacts could occur as a result of the proposed project. The PEIR will further address biological impacts.

- c) *Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrologic interruption, or other means?*

The project site is within the Santa Barbara Channel of the Pacific Ocean, approximately 0.5 mile away from the shoreline at the closest point. The project site is not considered a wetland area by definition (EPA 2016), and therefore **no impact** would occur. This topic will not be further addressed in the PEIR.

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- d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

As discussed in thresholds a) and b), numerous fish, bird, and marine mammal species utilize waters of the Pacific Ocean within the project area. Potential biological issues include incorporation of shellfish equipment such as the long line configurations, construction impacts on the seafloor, deposition and accumulation of biological materials on the seafloor during operation, invasive fouling organisms, and potential for marine mammal entanglement in aquaculture gear.

Although the proposed candidate area for aquaculture leases has not previously been used for aquaculture, the project area is currently and was historically used for trawling areas by commercial fisheries. As previously stated in threshold a), the project site is not within a designated MPA area, and no adverse degradation of open water habitat is expected to result due to implementation of the proposed project. However, there is the potential for the proposed project to interfere with whale migrations, migratory fish, and, or other wildlife species that inhabit or migrate through the project area. Therefore, **potentially significant impacts** to marine species could occur as a result of the proposed project. The PEIR will further address biological impacts.

- e) *Would the project conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance?*

The proposed project would be subject to the public agencies approval/required permits and entitlements listed in Section 10 of the IS checklist, as previously shown. Tree preservation policies or ordinances are not applicable to the proposed project. However, the project would be consistent with California's Aquaculture Development Act (Public Resources Code sections 826–828), which encourages the practice of aquaculture to augment food supplies, expand employment, promote economic activity, and protect and better use the land and water resources of the state. The project would also be consistent with Assembly Joint Resolution 43 (2014), wherein the Legislature states its support “to protect existing shellfish beds and access to additional acreage for shellfish farming and restoration.” Furthermore, the project would be consistent with NOAA's National Shellfish Initiative⁴ and National Marine Aquaculture Policy⁵, which seek to increase populations of bivalves in coastal waters through commercial aquaculture

⁴ NOAA's National Shellfish Initiative fact sheet - http://www.nmfs.noaa.gov/aquaculture/docs/policy/natl_shellfish_init_factsheet_summer_2013.pdf

⁵ NOAA National Marine Aquaculture Policy - http://www.nmfs.noaa.gov/aquaculture/docs/policy/noaa_aquaculture_policy_2011.pdf

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production and acknowledge the multiple benefits of shellfish aquaculture, including providing new jobs and business opportunities, meeting the growing demand for seafood, and providing habitat for important species.

Implementation of the proposed project would not conflict with any policies or ordinances protecting biological resources, and impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

As discussed in threshold a), MPAs were created to fulfill California's landmark MLPA and were designed through a public policy process. The goals of MPAs are to restore ocean life threatened by overfishing, pollution, and habitat destruction with the objective is to create safe havens for marine wildlife to reproduce, grow, and replenish adjacent areas, leading to stronger and more resilient marine ecosystems overall. As previously outlined under thresholds a) and b), there are 19 MPAs within the Santa Barbara Channel, surrounding the project area (5 along the coast and 14 surrounding the Channel Islands). Each MPA was designated to set aside a particularly special area of the marine environment to create a robust network of protection covering over 350 square miles (Santa Barbara Channelkeeper 2017). The project is not located within any designation of MPA designations, including State Marine Reserve, State Marine Conservation Area, State Marine Park, or State Marine Recreational Management Area. Additionally, there are seemingly no proposed or planned MPAs under the MLPA located within the project area, or Areas of Special Biological Significance as defined by the California RWQCB.

Activities associated with the proposed project would be similar in nature with existing fishing in that aquaculture activities involve commercial fishing boats and activities in ocean waters and in the harbor. Implementation of the proposed project would not conflict with any adopted conservation plans or the MLPA, and impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

3.5 Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

On May 4, 2017, a Dudek archaeologist completed a search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center, located on the campus of California State University, Fullerton (Appendix A). The search

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included any previously recorded cultural resources and investigations within a 1-mile radius of the project area. The CHRIS searches also included a review of the National Register of Historical Places (NRHP), California Register of Historical Resources (CRHR), California Points of Historical Interest list, California Historical Landmarks list, Archaeological Determinations of Eligibility list, and California State Historic Resources Inventory list. Because the entirety of the project area, and majority of the record search buffer, is located off-shore, a search of the Coast Survey Wrecks and Obstructions Database was completed on May 5, 2017 (Appendix A).

Thirteen cultural resources studies have been previously conducted within 1-mile of the project area; however, none of these 13 studies were conducted within the project area (Appendix A, Table 1). There are no identified or known historical resources within the project site, and such resources are unlikely given the nature and location of the proposed project, as well as the low number of historical resources discovered during previous studies. Therefore, impacts are determined to be **less than significant**, and this topic will not be further analyzed within the PEIR.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

As described in response to threshold a), Dudek archaeologist completed a search of the CHRIS on May 4, 2017, and a search of the Coast Survey Wrecks and Obstructions Database was completed on May 5, 2017 (Appendix A). The records search of the Coast Survey Wrecks and Obstructions Database found that one known shipwreck has been recorded within the 1-mile radius, located northeast of the project area, south of Dulah. There are no identified or known shipwrecks or archaeological resources within the project site, and findings of such resources on site are unlikely given the nature and location of the proposed project. Therefore, impacts are determined to be **less than significant**, and this topic will not be further analyzed within the PEIR.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As previously described in response to thresholds a) and b), a search of the CHRIS database was completed on May 4, 2017. The search included any previously recorded cultural resources and investigations within a 1-mile radius of the project area. The CHRIS searches also included a review of the NRHP, CRHR, California Points of Historical Interest list, California Historical Landmarks list, Archaeological Determinations of Eligibility list, and California State Historic Resources Inventory list.

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Additionally, a search of the Coast Survey Wrecks and Obstructions Database was completed on May 5, 2017 (Appendix A).

There are no identified or known paleontological resources within the project site, and findings of such resources on site are unlikely given the nature and location of the proposed project. Therefore, impacts are determined to be **less than significant**, and this topic will not be further analyzed within the PEIR.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

As previously described in response to thresholds a) and b), a search of the CHRIS database was completed on May 4, 2017. The records search found that two cultural resources have been recorded within the 1-mile records search radius of the project site (Appendix A, Table 2). Both of these resources are prehistoric midden sites with reported human remains. However, there are no recorded cultural resources, prehistoric sites, or human remains within the project area. Additionally, there are no identified or known shipwrecks within the project site that would be associated with the potential for human remains. Although the finding or disturbance of human remains during project construction or operation is unlikely, adherence to Section 7050.5(b) of the California Health and Safety Code would protect any previously unidentified buried human remains. In accordance with these codified requirements, in the event that human bone or bone of unknown origin is found during construction, all work is required to stop in the vicinity of the find and the County Coroner must be contacted immediately. If the remains are determined to be Native American, the Coroner is required to notify the Native American Heritage Commission, who then notifies the person it believes to be the most likely descendant. The most likely descendant would work with VPD to develop a program for re-internment of the human remains and any associated artifacts. Project compliance with the California Health and Safety Code would ensure impacts to human remains would be **less than significant**. This topic will not be further addressed within the PEIR.

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3.6 Geology and Soils

a) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Ventura lies in an active geologic region and is therefore subject to a variety of seismic hazards, including ground shaking, liquefaction, and slope failure. The project area and adjacent off shore area is located within the Pitas Point Seismic Hazard Zone / Pitas Point Quadrangle. The fault lines that potentially are located within the project area are the Pitas Point Fault (certain), numerous pre-Quaternary faults and the Javon Canyon fault. Major faults in the city include the Ventura-Foothill (a state-designated Alquist-Priolo Earthquake Fault Zone), Oak Ridge, McGrath, Red Mountain, and Country Club faults. Areas closest to these faults are most likely to experience ground shaking or rupture in the event of an earthquake (City of Ventura 2005a).

However, the proposed project would not add any habitable structures to the landscape that would be susceptible to seismic damage, thus, not impacting any persons. Additionally, related to on-shore ancillary operations, no new infrastructure is proposed as part of the project that would be impacted as a result of earthquake activity. Due to the location and nature of the proposed project, implementation would not result in the exposure of people or structures to a known earthquake fault. **No impacts** would result. This topic will not be further addressed in the PEIR.

ii) *Strong seismic ground shaking?*

Seismic events caused by active and potentially active faults in the region could result in seismic ground shaking of the ocean floor within the project site. However, as discussed in the previous threshold, the proposed project would not add any fixed structures that could be effected by strong seismic ground shaking. All proposed materials would not be permanent and would be pre-fabricated. All materials would be submerged or float at the water surface, which would generally not be subject to damage potential during a seismic event. Additionally, as previously stated, related to on-shore ancillary operations, no new infrastructure is proposed as part of the project that would be susceptible to

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ground shaking. Due to the location and nature of the proposed project, implementation of the project would not result in the exposure of people or structures to strong seismic ground shaking. **No impact** would occur, and this topic will not be further addressed in the PEIR.

iii) Seismic-related ground failure, including liquefaction?

Liquefaction is a temporary but substantial loss of shear strength in saturated or partially saturated granular solids such as sand, silt, or gravel, usually in response to earthquake shaking, causing the sediment to behave like a liquid. Although the proposed project includes a horizontal structural header line, or backbone, that is attached to the seafloor by sand screw anchors, the proposed long lines would be tethered to buoyancy devices at the ocean surface. It is anticipated that potential impacts to project-related materials would be negligible should liquefaction of the ocean floor occur. Related to on-shore ancillary operations, no new infrastructure is proposed as part of the project that would be susceptible to liquefaction. Due to the location and nature of the proposed project, implementation of the project would not result in the exposure of people or structures to ground failure, including liquefaction. Therefore, it is determined that **no impact** would occur, and this topic will not be further addressed in the PEIR.

iv) Landslides?

The project site is not located on or near a hillside, and due to the project location within state waters of the Pacific Ocean; the site is not designated as a zone of required investigation for earthquake-induced landslides under the California Geologic Survey (California Department of Conservation 2015). Implementation of the proposed project would not have the potential to result in landslides, and therefore **no impact** would occur. This topic will not be further addressed in the PEIR.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Erosion is the process by which earth or rock materials are loosened or dissolved and moved from place to place. Natural erosion activity depends on the steepness of slopes, amount and intensity of rainfall, and soil types.

Construction of the proposed project would entail a horizontal structural header line, or backbone, that is attached to the seafloor by sand screw anchors. Construction impacts to the seafloor could result in sediment or sand erosion; however, the submerged long line growing gear configuration would be specifically engineered for open ocean conditions with respect to size and strength of all line, anchoring, hardware, and buoyancy. Due to the nature of marine sediment interactions being mostly driven by currents, erosion or

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loss of topsoil is not expected to be substantial. Additionally, implementation of BMPs, specifically Sediment Quality 1 and 2, as previously outlined in Table 1, would ensure the potential for substantial erosion to occur within the project site during construction and operation is low. Related to on-shore ancillary operations, no new infrastructure is proposed as part of the project that would result in potential soil erosion or loss of topsoil. Therefore, impacts related to soil erosion would be **less than significant**. This topic will not be further addressed in the PEIR.

- c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

The project consists of 20 100-acre leases in state waters in sandy bottom areas located northwest of Ventura Harbor, for the growing of shellfish for commercial harvesting. The project would establish a commercial offshore bivalve aquaculture operation based from the Ventura Harbor. Due to the nature and location of the proposed project, and as previously described in threshold a), implementation of the proposed project is not expected to result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore, there would be **no impact**. This topic will not be further addressed in the PEIR.

- d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Implementation of the proposed project would entail anchoring of the horizontal structural header line to the seafloor by sand screw anchors used to tether facilities to the seafloor, not providing support as the device are suspended in the water column. The proposed project would be located in state waters with sandy bottom areas. Expansive soils are generally clayey, swell when wetted, and shrink when dried. There are no expansive soils within the project area considering the project location, and related to on-shore ancillary operations, no new infrastructure is proposed as part of the project; therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

- e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The proposed project would establish and operate a commercial offshore bivalve aquaculture operation. Operation of the proposed project would not require a septic tank or any alternative wastewater disposal system. Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

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3.7 Greenhouse Gas Emissions

- a) *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

The proposed project would involve direct generation of greenhouse gasses (GHGs) through burning of gasoline and other fuels from power boats, generators, and vehicular traffic. As described in Section 3.3 above, watercraft used for planting, inspections, and harvesting would be home ported at Ventura Harbor. On average, between 20 to 40 boats would be traveling to the specific lease sites to conduct these activities on a three times per week to daily basis. The maximum distance traveled would be between the Harbor and the farthest potential lease area, which could be up to approximately 16 miles.

Since the proposed project would result in the generation of new GHG emissions, emissions will be calculated using the California Emissions Estimator Model and will be based on the increase in estimated daily vessel and vehicle trips associated with the proposed project. The PEIR will further address **potentially significant impacts** related to GHG impacts.

- b) *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Neither the VAPCD, VPD, nor City of Ventura have adopted a Climate Action Plan or any other adopted plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

The proposed project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs and would be consistent with the objectives of the RTP/SCS, AB 32, Senate Bill (SB) 97, and SB 375. However, as the GHG emissions would be quantified and construction and operational activities further evaluated, the PEIR will further address potential conflicts related to GHG plans policies and/or regulations, which would be a **potentially significant impact**.

3.8 Hazards and Hazardous Materials

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

The hazardous materials that would be associated with the project are boat fuel and lubricants. During project construction and operations, construction vessels and aquaculture fishing vessels would use petrochemicals (gasoline/diesel and oil) in their

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motors. Use of these materials is common in and around the project area, as well as in the Ventura Harbor, and does not represent a substantial hazard to the environment or people. Project personnel would follow applicable safety and cleanup protocols for fueling and lubricating vessel engines. Proposed activities associated with the project would be consistent with other fishing and boating operations in the area. The proposed project would be required to comply with the Ventura Harbor Ordinance 44, which regulates the use of Ventura Harbor, as well as applicable State of California boating laws and state regulations regarding the transport and storage of fuels.

As outlined in Table 1, the BMPs storage and disposal of supplies 1, 2, and 3 are required under existing applicable regulations and would ensure potential impacts related to hazardous materials would be minimized or avoided.

Compliance with applicable State of California laws and Ventura Harbor Ordinance 44, including BMPs, would ensure potential impacts related to hazardous materials would be **less than significant**. This topic will not be further addressed in the PEIR.

b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

As discussed in response to threshold a), hazardous materials that would be associated with the project are boat fuel and lubricants. Use of these materials is common in and around the project area, as well as in the Ventura Harbor, and does not represent a substantial hazard to the environment or people. Proposed activities associated with the project would be consistent with other fishing and boating operations in the area. Project personnel would follow applicable safety and cleanup protocols for fueling and lubricating vessel engines.

The project may also result in accidental loss of gear or other debris; however, any such gear or debris encountered during operations would be retrieved for proper disposal according to State of California regulations and VPD laws to avoid it breaking down and potentially polluting the ocean.

In relation to operation of shellfish cultivation, the potential for domoic acid accumulation in cultivated shellfish from natural algae blooms would be low given the open water environment of the candidate area, and the potential for *Vibrio* contamination of cultivated shellfish would be low. Implementation of proposed BMPs in compliance with applicable regulations would ensure impacts related to hazards would be **less than significant**. This topic will not be further addressed in the PEIR.

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- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The proposed project site is not located within one-quarter mile of an existing or proposed school, as the proposed project would be located approximately 0.5 mile off the shoreline at the closest point. Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

- d) *Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and, as a result, would it create a significant hazard to the public or the environment?*

The project site is not on any hazardous materials site compiled pursuant to Government Code Section 65962.5 according to the Envirostor database maintained by the Department of Toxic Substances Control (DTSC 2017) and GeoTracker database maintained by the SWRCB (SWRCB 2017). The project site is within the Santa Barbara Channel of the Pacific Ocean, and the siting activities have included mapping of facilities such as outfalls, oil and gas pipelines and platforms, to ensure avoidance of such areas. As a result, contaminants would be not uncovered or disturbed by the proposed activities. Therefore, impacts are determined to be **less than significant**. This topic will not be further addressed in the PEIR.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

The project site is located approximately 8 miles northwest of the closest airport, Oxnard Airport, and is not located within the Oxnard Airport Land Use Plan (Ventura County Airport Land Use Commission 2000). Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

- f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

The project site is not located within the vicinity of a private airstrip. Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

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- g) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The proposed project would be located within the Pacific Ocean; however, required vessels and vehicles for construction and operation would be based out of the Ventura Harbor. Harbor Boulevard is listed as an evacuation route in the Ventura County Operational Area Tsunami Evacuation Plan; however, the project is not expected to result in any physical changes to Harbor Boulevard. The project would be required to comply with the Ventura Harbor Ordinance No. 44 requirements regarding emergency access. All navigational markers will be installed and recorded with the U.S. Coast Guard. Implementation of the proposed project would not impede emergency response or evacuation routes or procedures. Impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

- h) *Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

The proposed project area would be in the Pacific Ocean with support services on the shore within VPD, which is not a high-risk wildland fire area or adjacent to one. Therefore, there would be no risk of wildland fires. **No impacts** related to wildland fires would occur as a result of the proposed project. This topic will not be further addressed in the PEIR.

3.9 Hydrology and Water Quality

- a) *Would the project violate any water quality standards or waste discharge requirements?*

The proposed project would not involve waste discharge. No additives, feed, or chemicals would be used during project operations. Operations would involve the use of typical fuels and lubricants for boats discussed in Section 3.8, Hazards and Hazardous Materials. The proposed project would involve activity within waters of the project area during initial construction of the project and during annual harvesting activities. Construction and operation could result in temporary increases in turbidity and associated reduction in water quality.

Additionally, as described in Section 3.4, Biological Resources, potential biological issues that could also affect water quality include incorporation of shellfish equipment such as the long line configurations, construction impacts on the seafloor, deposition and accumulation of biological materials on the seafloor during operation, invasive fouling organisms, and potential for marine mammal entanglement in aquaculture gear.

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Gear and planted ropes would be inspected regularly as part of a comprehensive monitoring plan, but generally, the planted ropes would only be manipulated during initial stocking, intermediate harvest and restocking, and final harvest. Inspection would involve monitoring the all hardware and rigging and surface buoys and their tension, and checking for escaped gear and potential entanglements. Examples of possible observations that would trigger concern and further investigation are: (1) gaps or tangling of dropper ropes detected on depth finder or other structural anomalies, (2) fouling by objects or other marine debris detected in support buoys or buoy deployment lines, and (3) loss of function or damage to devices related to navigational safety. Furthermore, monitoring would be conducted to evaluate the project's potential effects on the seafloor and benthic environment beneath and in the vicinity of the facilities, including biological physical and chemical conditions; wildlife interactions; and marine debris, including lost and broken gear.

The proposed project would be subject to various state and federal regulations and permits regarding impacts to water resources. The VPD would have approval authority over the proposed project; however, the CCC, ACOE, USFWS, National Marine Fisheries Services, U.S. Coast Guard, California Fish and Game Commission, California SWRCB, and the RWQCBs would require approval of applicable permits and entitlements prior to project approval. Required permits and entitlements were previously outlined in Section 3.

Implementation of proposed BMPs, compliance with applicable permits and entitlements, and agency approvals reduce the potential for impacts to water quality. However, as the project would be installed and operated in the water column, this topic will be further analyzed within the PEIR and the proposed project could result in **potentially significant impacts** to water quality..

- b) *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?*

The proposed project would not involve the use of groundwater. Therefore, **no impact** to groundwater would result. This topic will not be further addressed in the PEIR.

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- c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?*

The proposed project would occur entirely within waters of the Pacific Ocean, approximately 0.5 mile offshore at the closest point. Implementation of the proposed project would not result in the alteration of an existing drainage pattern or the alteration of a watercourse. Additionally, activities associated with the proposed project would not affect the tidal movement/ebb and flow of the ocean. Therefore, **no impact** is expected to occur. This topic will not be further addressed in the PEIR.

- d) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?*

The proposed project would occur entirely within waters of the Pacific Ocean, approximately 0.5 mile offshore at the closest point. Therefore, implementation of the proposed project would not result in any surface runoff or flooding, and **no impact** is expected. This topic will not be further addressed in the PEIR.

- e) *Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Due to the nature and location of the proposed project, offshore in the Pacific Ocean, the project would not create or contribute runoff water. Therefore, **no impact** is expected. This topic will not be further addressed in the PEIR.

- f) *Would the project otherwise substantially degrade water quality?*

As described in response to threshold a), the proposed project would involve temporary disturbance of waters within the project area during initial construction of the project and during annual harvesting activities, which could result in temporary increases in turbidity and associated reduction in water quality.

Additional issues that could also affect water quality include incorporation of shellfish equipment such as the long line configurations, construction impacts on the seafloor, deposition and accumulation of biological materials on the seafloor during operation, invasive fouling organisms, and potential for marine mammal entanglement in aquaculture gear. As previously described, gear and planted ropes would be inspected

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regularly as part of a comprehensive monitoring plan, but generally, the planted ropes would only be manipulated during initial stocking, intermediate harvest and restocking, and final harvest. Inspection would involve monitoring the all hardware and rigging and surface buoys and their tension, and checking for escaped gear and potential entanglements. Examples of possible observations that would trigger concern and further investigation include gaps or tangling of dropper ropes detected on depth finder or other structural anomalies, fouling by objects or other marine debris detected in support buoys or buoy deployment lines, and loss of function or damage to devices related to navigational safety. Furthermore, monitoring would be conducted to evaluate the project's potential effects on the seafloor and benthic environment beneath and in the vicinity of the facilities, including biological physical and chemical conditions; wildlife interactions; and marine debris, including lost and broken gear.

Implementation of proposed BMPs, facility monitoring, compliance with applicable permits and entitlements, and agency approvals reduce the potential for impacts to water quality. However, as the project would be installed and operated in the water column, this topic will be further analyzed within the PEIR and the proposed project could result in **potentially significant impacts** to water quality.

- g) *Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

The proposed project does not include housing or structures susceptible to flooding impacts, and project-related equipment and materials during both construction and operation would not impeded flood flows due to the location and nature of the project. The project would not place housing within a 100-year flood hazard area, and **no impact** would occur. This topic will not be further addressed in the PEIR.

- h) *Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?*

As described in the response to threshold g), the proposed project does not include structures susceptible to flooding impacts, and project-related equipment and materials during both construction and operation would not impede or redirect flood flows due to the location and nature of the project. Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

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- i) *Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?*

The proposed project would not introduce any new habitable structures or any other permanent facilities that would expose people or structures to risk of loss, injury, or death due to flooding. Considering the nature and location of the proposed project, **no impact** would occur as a result of flooding. This topic will not be further addressed in the PEIR.

- j) *Would the project cause inundation by seiche, tsunami, or mudflow?*

According to the Tsunami Inundation Map for Emergency Planning for the Ventura Quadrangle (California Emergency Management Agency 2009), the immediate shoreline and no more than 0.5 mile inland at the furthest point lies within the tsunami inundation area of Ventura County.

The project site is not subject to inundation by seiche, mudflow, or tsunami due to the fact that it is a marine site within the water column. Additionally, the project does not propose any activities or structures on the shore that could be affected by inundation. Therefore, **no impact** is determined, and this topic will not be further addressed in the PEIR.

3.10 Land Use and Planning

- a) *Would the project physically divide an established community?*

The project would establish a commercial offshore bivalve aquaculture operation in the Santa Barbara Channel of the Pacific Ocean approximately 0.5 mile from the shoreline at the closest point. Majority of the proposed project would be submerged with only buoys and navigational aids at the water surface. The project does not include any features that would physically divide an established community. Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

- b) *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

The VPD would have approval authority over the proposed project. The project site is located within state waters and is not subject to the City of Ventura General Plan or the County of Ventura General Plan. However, the following other public agencies

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approval/required permits and entitlements would be required for the purpose of avoiding or mitigating a potential environmental effect:

California Coastal Commission

In partnership with coastal cities and counties, the CCC plans and regulates the use of land and water in the coastal zone. Development activities—which are broadly defined by the Coastal Act to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters—generally require a coastal permit from either the Coastal Commission or the local government. The Coastal Act of 1976 includes specific policies (see Division 20 of the Public Resources Code) that address issues such as shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, offshore oil and gas development, transportation, development design, power plants, ports, and public works. The policies of the Coastal Act constitute the statutory standards applied to planning and regulatory decisions made by the CCC and by local governments, pursuant to the Coastal Act. The proposed project would be required to submit/obtain a Coastal Development Permit Applicant in compliance with the Coastal Act.

U.S. Army Corps of Engineers

ACOE personnel provide support in National Environmental Policy Act documentation. ACOE permits issued under Section 404(a) of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899 routinely contain conditions that relate to compensatory mitigation for resources that are going to be adversely affected or lost as a result of a permitted activity. The ACOE is strongly committed to protection of the overall aquatic environment on a watershed basis, including fully mitigating authorized impacts to all aquatic resources. The proposed project would be required to obtain a Section 10 Rivers and Harbors Act of 1899 permit.

U.S. Fish and Wildlife Service

The USFWS is the principal federal partner responsible for administering the ESA. The two major goals of the USFWS is to protect endangered and threatened species, and then pursue their recoveries; and conserve candidate species and species-at-risk so that listing under the ESA is not necessary. The proposed project would be required to comply with Section 7 of the ESA. Additionally, in relation to project activity, initial plantings would only use hatchery-reared mussel spat certified by CDFW.

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National Marine Fisheries

The NOAA Fisheries Office of Habitat Conservation protects, restores, and promotes stewardship of coastal and marine habitat to support the nation's fisheries for future generations. Similar to compliance with the USFWS, the project would be required to comply with Section 7 of the ESA.

The project would be consistent with NOAA's National Shellfish Initiative⁶ and National Marine Aquaculture Policy⁷, which seek to increase populations of bivalves in coastal waters through commercial aquaculture production and acknowledge the multiple benefits of shellfish aquaculture, including providing new jobs and business opportunities, meeting the growing demand for seafood, and providing habitat for important species. Finally, the project furthers the goals of the National Ocean Policy Implementation Plan⁸, one of which is to increase efficiencies in the permitting process and encourage agency coordination to facilitate additional marine aquaculture development.

California's Aquaculture Development Act

The project would be consistent with California's Aquaculture Development Act (Public Resources Code sections 826–828), which encourages the practice of aquaculture to augment food supplies, expand employment, promote economic activity and protect and better use the land and water resources of the state.

NOAA Office of National Marine Sanctuaries

NOAA's Office of National Marine Sanctuaries serves as the trustee for a network of underwater parks encompassing more than 600,000 square miles of marine and Great Lakes waters. The National Marine Sanctuary System protects America's natural and cultural marine resources by working with diverse partners and stakeholders to promote responsible and sustainable ocean uses. The project would be required to comply with the National Marine Sanctuaries Act.

As part of the proposed project, monitoring would be conducted to evaluate the project's potential effects on the seafloor and benthic environment beneath and in the vicinity of the facilities, including biological physical and chemical conditions; wildlife interactions,

⁶ NOAA's National Shellfish Initiative fact sheet - http://www.nmfs.noaa.gov/aquaculture/docs/policy/natl_shellfish_init_factsheet_summer_2013.pdf

⁷ NOAA National Marine Aquaculture Policy - http://www.nmfs.noaa.gov/aquaculture/docs/policy/noaa_aquaculture_policy_2011.pdf

⁸ The National Ocean Implementation Plan - https://obamawhitehouse.archives.gov/sites/default/files/national_ocean_policy_implementation_plan.pdf

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including marine mammals, sea turtles, fish and seabirds; and marine debris, including lost and broken gear. The monitoring program and protocols would be vetted with input and coordination among the regulatory agencies and would include annual reports summarizing the previous year's implemented project activities and all activities that have been implemented since the start of the project, within the designated monitoring period and all monitoring results.

U.S. Coast Guard

The Coast Guard is the principal federal agency responsible for maritime safety, security, and environmental stewardship in United States ports and waterways. The Coast Guard is a member of the Intelligence Community and is a law enforcement and regulatory agency with broad legal authorities associated with maritime transportation, hazardous materials shipping, bridge administration, oil spill response, pilotage, and vessel construction and operation. The Coast Guard Station Channel Islands Harbor would be the unit responsible for activities within the project area. The proposed project would be required to obtain a PATON Permit by application Form CG-2554. A PATON is a buoy, light, or daybeacon owned and maintained by any individual or organization other than the U.S. Coast Guard. PATON are designed to allow individuals or organizations to mark privately owned marine obstructions or other similar hazards to navigation, or to assist their own navigation operations. Private aids to navigation are required to be maintained by the owner as stated on the U.S. Coast Guard permit.

California Fish and Game Commission

The Commission was the first wildlife conservation agency in the United States. The Department of Fish and Wildlife is charged with implementing and enforcing the regulations set by the Commission, as well as providing biological data and expertise to inform the Commission's decision-making process. The project would be submitted and obtain an application for an aquaculture lease for state water bottoms through the Commission. Additionally, the proposed project would be required to comply with applicable Commission regulations included within Title 14, National Resources within the California Code of Regulations.

California Department of Fish and Wildlife

The CDFW Aquaculture Program oversees California's diverse aquaculture industry. Through policies and regulations, CDFW and the Commission balance the protection of natural resources and the development of sustainable commercial aquaculture. The

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proposed project would be required to obtain aquaculture registration approval and submit payment of applicable fees to CDFW.

California State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB and the nine RWQCBs protect water quality and allocate surface water rights. The proposed project would be required to obtain a Section 401 Water Quality Certification from the SWRCB.

California Department of Public Health

The CDPH works to protect the public's health in the state. CDPH's fundamental responsibilities include infectious disease control and prevention, food safety, environmental health, laboratory services, patient safety, emergency preparedness, chronic disease prevention and health promotion, family health, health equity, and vital records and statistics. The Environmental Management Branch of CDPH manages the Marine Biotoxin Monitoring Program for bivalve shellfish in California and also regulates the commercial molluscan shellfish aquaculture industry for all pre-harvest elements of the National Shellfish Sanitation Program. The proposed project would be required to obtain a Growing Area Certification from CDPH.

California Department of Food and Agriculture

The CDFA's mission statement is to serve the citizens of California by promoting and protecting a safe, healthy food supply and enhancing local and global agricultural trade through efficient management, innovation, and sound science with a commitment to environmental stewardship.

CDFA's Weighmaster Enforcement Program assures that commercial transactions based on quantities certified on a weighmaster certificate are accurate. The program licenses as weighmasters, individuals or firms who weigh or measure bulk commodities and issue certificates of accuracy. Program activities include reweighing of vehicles and containers to verify the net weight statements on weighmaster certificates and routine as well as spot inspection of establishments involved in bulk sales. The applicant would be required to obtain a Weighmaster License Application.

California State Office of Historic Preservation

The California State Office of Historic Preservation is responsible for administering federally and state mandated historic preservation programs to further the identification,

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evaluation, registration, and protection of California's irreplaceable resources. The proposed project would be required to prepare a Cultural Resources Report and comply with the AB 52 Consultation process.

With agency approval and obtainment of the required permits outlined above, the proposed project would not conflict with any applicable land use plan, policy, or regulation. However, due to the array of governing jurisdictions and state agencies regulating the proposed project, an implementation checklist is required and will be further outlined in the PEIR. Impacts are **potentially significant**.

c) ***Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?***

As described in Section 3.4, MPAs were created to fulfill California's landmark MLPA and were designed through a public policy process. Although the proposed project site is not within a designated MPA, there are 19 MPAs within the Santa Barbara Channel surrounding the project area (5 along the coast and 14 surrounding the Channel Islands). Each MPA was designated to set aside a particularly special area of the marine environment to create a robust network of protection covering over 350 square miles (Santa Barbara Channelkeeper 2017).

In addition, the SWRCB adopted the 2015 California Ocean Plan, regulating discharges into the ocean. As previously stated in the project description, the proposed project would incorporate a number of other resource protection measures that avoid and minimize impacts on the aquatic environment. These resource protection measures would include BMPs related to carrying capacity, seed supply, sediment quality, predator and wildlife interactions, and storage and disposal of aquaculture gear. The BMPs would be incorporated in project permit conditions and/or mitigation measures and implemented by individual growers/producers. The aquatic environment would benefit from a cumulative beneficial effect of these BMPs resulting from the programmatic nature of the project. For example, there would be unique opportunities for a programmatic monitoring plan among the 20 lease areas that would provide a more comprehensive dataset compared to project-by-project permitting and would also reduce individual efforts. Proposed BMPs are outlined in Table 1.

The proposed project would not conflict with any habitat or natural community plans. Therefore, impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

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3.11 Mineral Resources

- a) *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

According to Figure 4.9-2 of the 2005 Ventura General Plan Final EIR, the project site is not within a designated Mineral Resource Protection Zone. Due to the location and proposed activities of the project, the loss of known mineral resources would not occur. Therefore, **no impact** would result from implementation of the proposed project. This topic will not be further addressed in the PEIR.

- b) *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

The project site is not designated as a locally important mineral resource recovery site on any local general plan, specific plan, or other land use plan. Due to the location and nature of the proposed project, there would be **no impacts** to mineral resources. This topic will not be further addressed in the PEIR.

3.12 Noise

- a) *Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The project would establish a commercial offshore bivalve aquaculture operation in the Santa Barbara Channel of the Pacific Ocean approximately 0.5 mile from the shoreline at the closest point. The primary noise effect would be caused by the addition of approximately 20 to 40 boats traveling to the specific lease sites to conduct planting and inspections activities on a three times per week to daily basis. Boat activity related to the proposed project would generate intermittent noise similar to that generated by other fishing and recreational watercraft in and around the area, including during initiation and harvesting unloading at the port. In addition, the project would generate noise associated with generators and vessel internal combustion engines run during annual harvest activities.

Due to the distance of the project site from the shoreline, noise associated with project activities would likely not be heard from sensitive receptors, and noise levels would be comparable to existing conditions. The proposed project would fall under Zone IV (industrial and agricultural) Noise Zone Exterior Noise Limits of the City of Ventura

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Municipal Code, Section 10.650.130B. This zone allows activities to operate anytime of the day at exterior noise levels of 70 dBA. Activities associated with the proposed project are not expected to result in the exposure of persons to or generation of noise levels in excess of City of Ventura standards. Therefore, impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

b) *Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

The proposed project does not have any operational uses that generate groundborne vibration. During construction, the horizontal structural header line, or backbone of the long line configuration, would be attached to the seafloor by sand screw anchors. Installation of the sand screw anchors would not result in substantial groundborne vibration, and any potential groundborne noise related to construction of the long line configuration would not be heard due to construction activity occurring underwater; as well as project site distance from the shoreline and sensitive receptors. For these reasons, impacts related to groundborne noise levels would be **less than significant**, and this topic will not be further addressed in the PEIR.

c) *Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

During operation of the proposed project, noise would be generated from worker vehicle trips to and from Ventura Harbor as well as marine vessel operations associated with planting, inspections, and harvesting. On average, it is estimated that between three times per week and once per day, approximately 20 to 40 boats would travel to the project site from Ventura Harbor to perform the planting, inspection, and harvesting activities. The worker vehicle trips to and from Ventura Harbor associated with this level of activity would not represent a substantial increase in the number of vehicles operating on the roadways in the vicinity of Ventura Harbor compared to existing noise levels generated by vehicles on these roadways. As a result, worker vehicle trips to and from the harbor would not cause a substantial permanent increase in ambient noise levels.

Due to the increase in boat activity associated with operation of the proposed project, there would be an incremental increase in noise in Ventura Harbor from engine startup, idling, as well as transit by these marine vessels into and out of the harbor. The nearest sensitive receptors to the Ventura Harbor channel that would be used by these boats to enter and exit the harbor are the residences located approximately over 300 feet north of the middle of the channel that would be used for entry and exit of the harbor by boats associated with the proposed project. These sensitive receptors would experience

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incremental increases in noise from boats transiting the harbor. However, boat-generated noise as a result of the proposed project would be intermittent (occurring only while these marine vessels are entering and exiting the harbor), short term (occurring only for the period of time required to transit the harbor), and would not represent a substantial increase in boat activity in comparison to the current number of marine vessels that transit the harbor regularly. Furthermore, marine vessels associated with the proposed project that would operate a motor for transit would do so at the lower speeds required in the harbor area, which would reduce the potential noise generated by these boats. No persons are located in proximity to the project site or open ocean transit areas for the vessels associated with the proposed project's operation. There is the potential for marine organisms in the project area to be sensitive to both construction and operational activities associated with the proposed project. Therefore, noise resulting from the proposed project is considered **potentially significant**. This topic will be further addressed as part of the biological analysis in the PEIR.

- d) *Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Temporary increases in ambient noise levels would occur during construction of the proposed project from marine vessel activity required to install the ropes, buoys, and screw anchors associated with the proposed project. Boats required for this activity would enter and exit the Ventura Harbor, resulting in increase in noise levels from startup, idling, and use of engines to transit the harbor. However, as previously described, the noise generated from these activities would be intermittent, short term, and would not represent a substantial increase in boat activity for the harbor. Construction activity associated with the proposed project would occur in the lease areas located in the open ocean environment, away from sensitive noise receptors that are located onshore. As such, the use of construction equipment such as cranes on these marine vessels are not expected to result in a substantial increase in ambient noise levels at the nearest onshore sensitive receptors. However, the increase in temporary noise levels above existing conditions will be further analyzed in the PEIR, and impacts are determined to be **potentially significant**.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project site is located approximately 8 miles northwest of Oxnard Airport at its closest point. The proposed project is not located within the Oxnard Airport land use plan (Ventura County Airport Land Use Commission 2000); and the project does not propose

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any habitable structures. Therefore, implementation of the project would not expose people to excessive noise levels, and **no impact** would occur. This topic will not be further addressed in the PEIR.

- f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

The proposed project site is not within the vicinity of a private airstrip. Additionally, the project does not propose any habitable structures. Therefore, the project would not expose people to excessive noise levels, and **no impact** would occur. This topic will not be further addressed in the PEIR.

3.13 Population and Housing

- a) *Would the project induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?*

The proposed project does not involve the construction of residential uses, businesses, or any other habitable structures. Additionally, the project would not include the construction or extension of any roads or other infrastructure. The proposed project would create new jobs which are expected to be filled primarily by people who already live in the region and/or were previously employed or are currently under-employed in commercial fishing out of the Ventura Harbor. According to the State of California Employment Development Department, Ventura County currently has an unemployment rate of 4.5%; approximately 19,200 people of the county's 429,300-person labor force are unemployed. The proposed project would help to reducing the county's unemployment rate. The introduction of new jobs to the area is considered important opportunities for the existing population; and project impacts to population growth in the area would be **less than significant**. This topic will not be further addressed in the PEIR.

- b) *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

The proposed project would establish a commercial offshore bivalve aquaculture operation approximately 0.5 mile from the shoreline at the closest point. There is no existing housing in or surrounding the project site, and there are no habitable structures proposed as part of the project. Therefore, no temporary or long-term displacement of existing housing would occur, and the project would not require construction of replacement housing. **No impact** would occur. This topic will not be further addressed in the PEIR.

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- c) *Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

As previously discussed in response to threshold b), the project site is located approximately 0.5 mile offshore at the closest point and would have **no impact** on the displacement of people or housing due to the nature and location of the proposed project. This topic will not be further addressed in the PEIR.

3.14 Public Services

- a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*

Fire protection?

Project-related vessels and intermittent activities based out of the Ventura Harbor would be served by the Ventura Harbor Patrol and/or the Coast Guard, which provides water fire suppression, rescue, and emergency medical services. However, the project would not create an increase in demand on Coast Guard or Ventura Harbor Patrol services, such that new or physically altered facilities would be needed to maintain acceptable service.

Due to the location and nature of the proposed project, proposed activities would not create an increase in demand for fire protection services. While the proposed project would create new jobs, the workers are expected to already live in the local community and would not represent a new burden on public services. Therefore, impacts would be **less than significant**, and this topic will not be further addressed in the PEIR.

Police protection?

The proposed project would not create an increase in demand for police protection services. While the proposed project would create new jobs, employees would likely already live in the local community and would not represent a new burden on public services. Therefore, impacts would be **less than significant**, and this topic will not be further addressed in the PEIR.

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Schools?

The proposed project does not include the construction of any residential uses. The project would establish a commercial offshore bivalve aquaculture operation, which would create new job opportunities. As previously stated, employees of the proposed project would likely already live in the local community and have children (if any) enrolled in schools within the Ventura Unified School District. Should the number of school-aged children not already enrolled in the Ventura Unified School District increase as a result of new project related jobs, the increase would be minimal and incremental and would not require the need for new or physically altered schools. Therefore, impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

Parks?

As previously discussed, while the proposed project would create new jobs, and employees would likely already live in the local community and would not represent a new burden on parks. Therefore, impacts would be **less than significant**, and this topic will not be further addressed in the PEIR.

Other public facilities?

The U.S. Coast Guard Station Channel Islands Harbor is a multi-mission unit that conducts Search and Rescue, Homeland Security, Maritime Law Enforcement, Counter Drug and Alien Migrant Interdiction Operations, Marine Environmental Protection, and Boating Safety from Point Dume to Point Conception and out 50 nautical miles. Station Channel Islands Harbor is located in Oxnard, California, and the area of responsibility includes all of Ventura and Santa Barbara counties and parts of Los Angeles County (United States Coast Guard 2016). As discussed in Section 3.10, Land Use and Planning, the proposed project would be required to obtain a PATON Permit by application Form CG-2554.

While the proposed project would increase activities to the area of responsibility for the U.S. Coast Guard Station Channel Islands Harbor unit, activities are similar to and consistent with existing activities in the project area. Implementation of the proposed project would not create an increase in demand for Coast Guard services and would not represent a new burden on public services or government facilities. Therefore, impacts would be **less than significant**, and this topic will not be further addressed in the PEIR.

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3.15 Recreation

- a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The proposed project is expected to create a small increase in boat traffic due to the watercraft used for planting, inspections, and harvesting associated with project operations. All project-related vessels would be home ported at Ventura Harbor. On average, between 20 to 40 boats would be traveling to the specific lease sites to conduct these activities on a three times per week to daily basis. The maximum distance traveled would be between the harbor and the farthest potential lease area, which could be up to approximately 16 miles. The increased presence of aquaculture equipment in the project area has the potential to impact recreational and commercial boating activities. However, the project would be consistent with uses in the area, and the project area would be adequately marked with buoys and navigational aids so that existing boating activities would be able to continue operation as usual in the surrounding areas and new areas or facilities would not be needed.

Furthermore, approximately 50 additional people would be employed by the project; however, they would likely already live in the local community and would not represent a new burden on recreational facilities. Due to the location and nature of the proposed project, there would be a **less than significant** impact to the increase in use of existing parks and recreational facilities. This topic will not be further addressed in the PEIR.

- b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

There are no recreational facilities proposed or required as a result of implementation of the proposed project. Approximately 50 additional people would be employed by the project; however, they would likely already live in the local community and would not represent a new burden on recreational facilities. Therefore, **no impact** would occur. This topic will not be further addressed in the PEIR.

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3.16 Transportation and Traffic

- a) *Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

The project site would not be served by an existing or proposed roadway network. The project site would only be accessible by watercraft, and the project would not be located within any identified areas constrained for use such as navigation pathways, MPAs, areas of hard rocky bottom representing Essential Fish Habitat, oil and gas leases, or existing infrastructure such as telecommunication cables and municipal wastewater discharge pipelines.

The project would employ approximately 50 people, likely already living in the local area. Parking for project employees would be accommodated within existing designated harbor parking areas. The project is expected to result in additional trips from employees and trucks servicing shellfish harvest distribution; however, the project is not expected to impact the existing performance of roadways or emergency access routes in the area and is not expected to result in a substantial increase in traffic that exceeds existing circulation system capacity. Additionally, as a commercial port, existing infrastructure within the harbor would accommodate servicing trucks. Therefore, impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

- b) *Would the project conflict with an applicable congestion management program (CMP), including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

The Ventura County Transportation Commission designated the CMP road network in 1991 as part of the development of the first CMP. The network is comprised of the state highway system and principal arterials in Ventura County (VCTC 2009).

Implementation of the proposed project would not conflict with the Ventura County CMP, as the CMP road network is comprised of the state highway system and principal arterials in Ventura County that are not directly associated with activities of the proposed project. Although Harbor Boulevard (i.e., the main road of entry into the Ventura Harbor) is within the CMP network, vehicle use associated with the proposed project is expected

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to be negligible in comparison to existing conditions and is not expected to substantially contribute to the CMP road network. Vehicles associated with the project as well as employees personal vehicles would be parked within designated areas of the harbor. During annual harvesting periods, trucks would be required for transportation of shellfish to distributors and are expected to enter and exit the Ventura Harbor during operational hours throughout the week. Trucks would be parked in designated loading zones within the harbor and are not expected to substantially contribute to the CMP due to hours of operation and intermittent commercial vehicle use. Vehicle operation associated with the proposed project would be consistent with existing activities within the harbor, and the addition of employee and harvesting vehicles as a result of the project would be considered generally consistent with existing conditions. Therefore, impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

- c) *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

The airport closest to the project site is Oxnard Airport, located approximately 8 miles southeast of the project site. Due to the location and nature of the proposed project, there would be **no impact** to air traffic. This topic will not be further addressed in the PEIR.

- d) *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The project leases would be located in open water within the 3-mile limit for state waters northwest of Ventura Harbor. The project is proposing 20 100-acre growing sites occupying a total project area of 2,000 acres. The project site would not be located within any identified areas constrained for use, such as navigation pathways, MPAs, areas of hard rocky bottom representing Essential Fish Habitat, oil and gas leases, and existing infrastructure such as telecommunication cables and municipal wastewater discharge pipelines.

Both commercial and recreational boat traffic utilize the project area and its surroundings. Because of existing activity in the area, there is the potential for damage to fishing gear or motor entanglement due to contact with aquaculture equipment. However, proposed activity would be compatible with existing activities in the area, and the project would implement buoys marking the total cultivation area for navigational safety purposes and would comply with all regulations for height, illumination, and visibility including radar reflection. Additionally, gear and planted ropes would be inspected regularly as part of a comprehensive monitoring plan. Inspection would involve monitoring the all hardware and rigging and surface buoys and their tension, and checking for escaped gear and potential entanglements.

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With the establishment of buoys marking the total cultivation area, both commercial and recreational boaters would be informed on where culture-related equipment is located, reducing the potential for design-related hazards. Furthermore, VSE would provide maps to the VPD annually, showing the locations of the shellfish culture parcels that can be shared with recreational boaters. These efforts would limit the possibility of inadvertent contact between small vessels and aquaculture gear. However, hazards due to project design and equipment could result in **potentially significant** impacts to watercraft in the area. This topic will be further addressed in the PEIR.

e) ***Would the project result in inadequate emergency access?***

The project site would not be accessible by emergency vehicles due to the location of the project approximately 0.5 mile offshore. The project site is only accessible by watercraft, and the U.S. Coast Guard Station Channel Islands Harbor unit would handle any project-related emergencies. The proposed project would not involve construction of new structures such that inadequate emergency access would occur. With the exception of required buoys and navigational aids, project-related materials would be submerged. Implementation of the proposed project would not result in inadequate emergency access, and impacts would be **less than significant**. This topic will not be further addressed in the PEIR.

f) ***Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?***

The proposed project does not include, nor would it decrease, the performance of any pedestrian, bicycle, or public transit facilities. The project site is only accessible by watercraft. Therefore, implementation of the proposed project would not conflict with any adopted pedestrian, public transit, or bikeway policies, plans, or programs. Impacts would be **less than significant**, and this topic will not be further addressed in the PEIR.

3.17 Utilities and Service Systems

a) ***Would the project exceed wastewater treatment requirements of the applicable RWQCB?***

The proposed project would not involve waste discharge. No additives, feed, or chemicals would be used during project operations other than the fuels and lubricants for boats discussed under sections 3.8 and 3.9. Implementation of the proposed project would not require water or wastewater services. The proposed project would be required to obtain a Section 401 Water Quality Certification from the RWQCB, Los Angeles Region

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4. With obtainment of this Section 401 Water Quality Certification, the project would be in compliance with the RWQCB, and impacts would be **less than significant**. This topic will not be further addressed within the PEIR.

- b) *Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

As previously discussed, implementation of the proposed project would not result in additional demands on any water or wastewater systems and would not require the construction of new water or wastewater treatment facilities. Project employees would use existing restroom facilities within the harbor, and additional wastewater produced as a result of employees would be considered negligible in comparison to existing conditions. Therefore, impacts would be **less than significant**. This topic will not be further addressed within the PEIR.

- c) *Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

The proposed project would not result in the increase of impervious surfaces. Due to the location and nature of the project, there would be no increase in stormwater runoff compared to existing conditions. Therefore, the project would not require the construction of new stormwater drainage facilities or expansion of existing facilities, and **no impact** would occur. This topic will not be further addressed within the PEIR.

- d) *Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

The project does not propose development of any habitable structures or uses that would substantially increase water demand. Any water use as a result of project operation, including annual harvesting activities, would be generally consistent with existing conditions and would not require new or expanded entitlements. Existing harbor facilities would adequately service project operations. Therefore, impacts are determined to be **less than significant**. This topic will not be further addressed within the PEIR.

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- e) *Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

As previously discussed, implementation of the proposed project would not result in substantial wastewater generation and would not require the construction of new wastewater treatment facilities. Project employees would use existing restroom facilities within the harbor, which would incrementally increase wastewater generation; however, additional wastewater produced as a result of project employees and any shellfish cleaning activities would be generally consistent with existing conditions and would not adversely affect the wastewater treatment provider. Wastewater generated within the harbor is treated at the City's Ventura Water Reclamation Facility, located in the harbor area near the mouth of the Santa Clara River. The Ventura Water Reclamation Facility is expected to sufficiently serve any wastewater generated by project activities in addition to existing commitments. Therefore, impacts would be **less than significant**. This topic will not be further addressed within the PEIR.

- f) *Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Implementation of the proposed project would not require the demolition or construction of any permanent structures that would generate large amounts of waste. Solid waste generated in the City of Ventura is typically hauled to Gold Coast Recycling and Transfer Station. Solid waste is sorted and either hauled to Toland Road Landfill (maximum permitted capacity of 1,500 tons per day) for disposal or segregated into recyclable materials and sent off to various recycling markets (City of Ventura 2005b). Waste associated with project activities would primarily consist of broken equipment used for shellfish cultivation; any such equipment or debris encountered during construction and operations would be retrieved for proper disposal or recycling according to State of California regulations and VPD laws to avoid it breaking down and potentially polluting the ocean.

Compliance with applicable state and local laws, as well as implementation of proposed BMPs and payment of any applicable waste fees, would reduce potential impacts related to solid waste. It is not anticipated that solid waste generated by project operations would exceed, nor adversely affect, the capacity of local landfills, and the project would be sufficiently served by existing facilities. Therefore, impacts would be **less than significant**, and this topic will not be further addressed in the PEIR.

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- g) *Would the project comply with federal, state, and local statutes and regulations related to solid waste?*

Waste associated with project activities would primarily consist of broken equipment used for shellfish cultivation. As previously stated, any such equipment or debris encountered during construction and operations would be retrieved for proper disposal according to State of California regulations and VPD laws to avoid it breaking down and potentially polluting the ocean. The proposed project would comply with applicable local, state, and federal regulations related to solid waste, and impacts would be **less than significant**. This topic will not be further addressed within the PEIR.

3.18 Mandatory Findings of Significance

- a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

As discussed in Section 3.4, the proposed project may have **potentially significant** impacts to the habitat of a fish or wildlife species and may restrict the range or reduce the number of endangered animal species. This topic will be further analyzed in the PEIR.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Activities associated with the proposed project may have substantial cumulative environmental impacts related to air quality, biological resources, GHG emissions, hazards, water quality, and/or (marine) traffic. Past aquaculture activities, existing commercial fishing, and recreational boating in combination with the proposed project could result in **potentially significant** cumulative impacts. Therefore, this topic will be further analyzed in the PEIR.

- c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

The proposed project involves the development of a commercial offshore bivalve aquaculture operation and would utilize existing on-shore facilities for ancillary purposes.

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Although the majority of potential impacts would be associated with ocean resources and marine species, impacts related to air quality and GHG emissions could both directly and indirectly result in **potentially significant** impacts to human beings. This topic will be further discussed in the PEIR.

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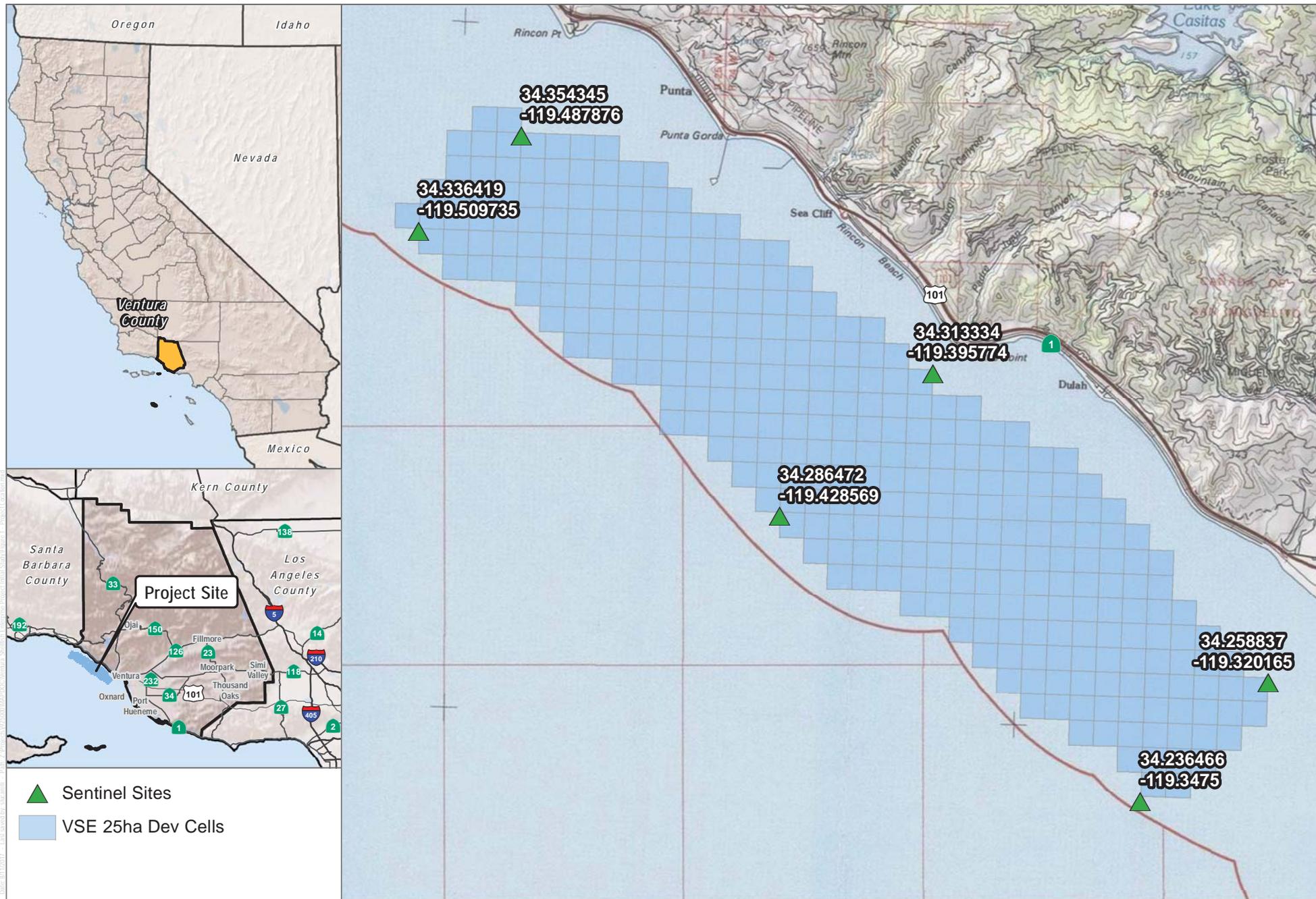
4.2 List of Preparers

VSE Members

Matthew Valerio, CEQA Project Manager – Dudek
Vanessa Currie, Environmental Analyst – Dudek

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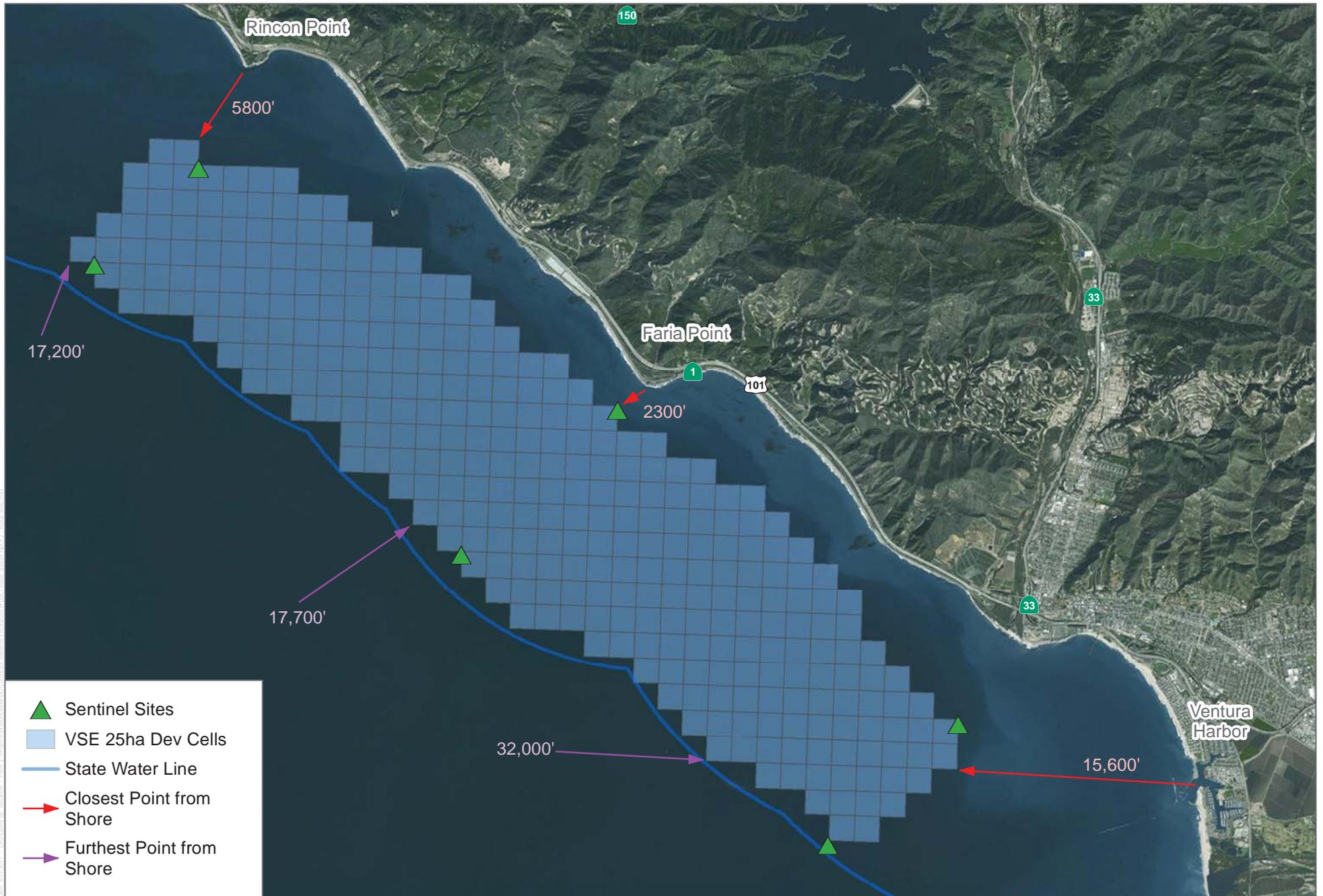


SOURCE: USGS 7.5-Minute Series

FIGURE 1
Project Location

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SOURCE: USGS 7.5-Minute Series

FIGURE 2
Aerial Map

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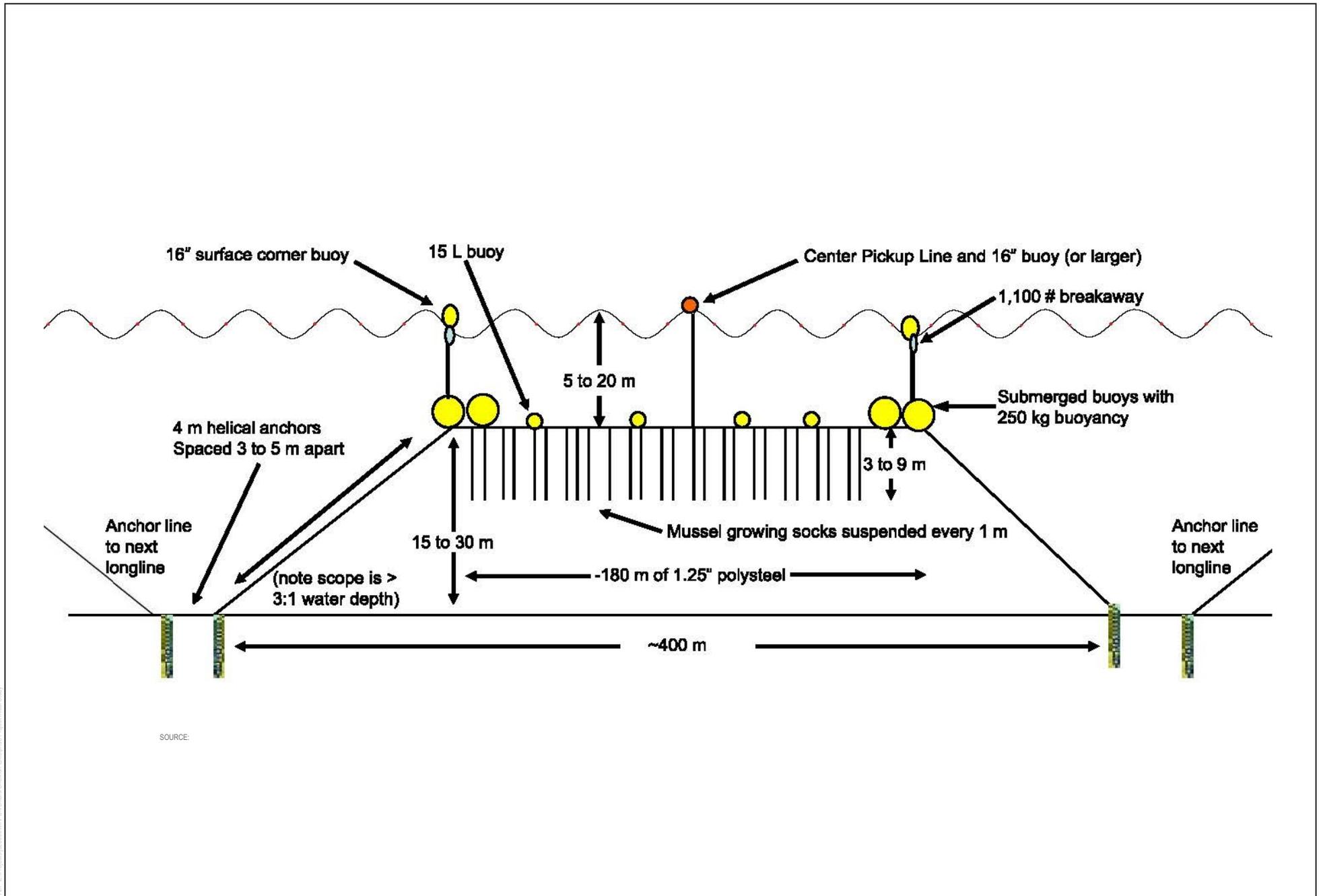


FIGURE 3

Detailed Plan for Shellfish Longlines

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APPENDIX A
CHRIS Records Search

APPENDIX A CHRIS Records Search

CHRIS RECORDS SEARCH

On May 4, 2017 a Dudek archaeologist completed a search of the California Historical Resources Information System (CHRIS) at the SCCIC, located on the campus of California State University, Fullerton. The search included any previously recorded cultural resources and investigations within a 1-mile radius of the project area. The CHRIS searches also included a review of the NRHP, the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. Because the entirety of the project area, and majority of the record search buffer, is located off-shore, a search of the Coast Survey Wrecks and Obstructions Database was completed on May 5, 20107.

Previously Conducted Cultural Resources Studies

Thirteen (13) cultural resources studies have been previously conducted within 1-mile of the project area. None of the 13 studies have been conducted within project area (Table 1).

**Table 1
Previous Cultural Resources Studies within the Project Area**

Year	Author	SCCIC Report ID	Report Title
1988	Dames and Moore	VN-00572	Phase 1 Cultural Resources Survey Fiber Optic Cable Project, Burbank to Santa Barbara, California for Us Sprint Communications Company
1984	Lopez, Robert	VN-00661	An Archaeological Reconnaissance of the Proposed Faria Beach Tennis Club, Ventura County, California (pd-1041)
1989	MacFarlane, Heather	VN-00738	Phase 1 Cultural Resources Survey 3808 Pacific Coast Highway (060-0-410-15, Lot 61) and 3816 Pacific Coast Highway (a.p.n. 060-0-400-325, Lot 60) Ventura Country, California
1967	Boyer, Jackie	VN-00957	University of California Los Angeles -- Archaeological Survey Field Project Ucas- 237
1990	MacFarlane, Heather	VN-00967	Phase 1 Cultural Resource Survey Proposed Radio Tower and Storage Orange Building Faria Beach Park Ventura County, California
1983	Gamble, Lynn H.	VN-01090	The Organization of Artifacts, Features, and Activities at Pitas Point: a Coastal Chumash Village
1992	Wilcoxon, Larry R. and Charles D. Locke	VN-01184	A Cultural Resource Evaluation for Cellular One's Proposed Faria Cellular Telephone Relay Station at Pitas Point in Ventura County, California
1993	Wilcoxon, Larry R.	VN-01203	Results of a Subsurface Archaeological Boundary Definition Program at Cellular One's Proposed Faria Cellular Telephone Relay Station at Pitas Point in Ventura County, California
1992	Reed, L.W.	VN-01265	Consolidated Report: Cultural Resources Studies for the Proposed Pacific Pipeline Project
1994	King, Chester	VN-01462	Prehistoric Native American Cultural Sites in the Santa Monica Mountains

APPENDIX A (Continued)

Table 1
Previous Cultural Resources Studies within the Project Area

Year	Author	SCCIC Report ID	Report Title
2000	Carbone, Larry A.	VN-01842	Phase I Archaeological Study for Proposed Construction of Railroad Siding Between Sea Cliff and Pita Point, County of Ventura, California
1998	W & S Consultants	VN-02066	Phase I Archaeological Survey for the Cox Communications Cup 5051 Project Study Area, Ventura County, California
2006	Arrington, Cindy and Nancy Sikes	VN-02504	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II

Previously Recorded Cultural Resources

Two cultural resources have been recorded within the one mile records search radius (Table 2). Both resources (P-56-000027 and -000240) are prehistoric midden sites with reported human remains.

Table 2
Previously Recorded Cultural Resources within 1-mile of the Project Area

Primary Number	Trinomial	Resource Type	Recorded By/Date	NRHP/CRHR Status
56-000027	CA-VEN-27	Shell midden with burials	McKusick, 1960; Greenwood, R.S. 1966; King, C. 1970; York, A., and B. Haley, 1988; Haslouer, L. and I. Studwick 2001	Unknown (site not evaluated)
56-000240	CA-VEN-240	Historic: Henry Newhall House	King, C. and Bard 1970; York, A., B. Haley, and M. Imwalle 1988; Haslouer, L. and I. Studwick 2001	Unknown (site not evaluated)

Previously Recorded Shipwrecks

One known shipwreck has been recorded within the one mile radius. Known only as KML_687, the wreck is located to the northeast of the project area, south of Dulah.