Guide to Navigating Lease & Permit Approvals for Ocean Farming in California

SUMMARY

Aquaculture is the process of raising and harvesting plants or animals in an aquatic environment. Marine aquaculture has a long history in California beginning with oyster culture in the late 1800s. Except where the State has otherwise assigned jurisdiction to local entities (e.g: Agua Hedionda Lagoon; Humboldt Bay; Port of San Diego; Ventura Harbor), the Fish and Game Commission (Commission) has the authority to lease state water bottoms for aquaculture. The Commission serves as lead agency for purposes of the California Environmental Quality Act (CEQA), and relies on the Department of Fish and Wildlife (DFW) for its role in subject matter expertise, resource management, and law enforcement. In concert, both the Commission and DFW oversee and ensure the continued protection of marine resources and essential habitat. In California, marine aquaculture for commercial purposes is currently limited to shellfish (e.g: oysters, abalone, clams, and mussels) and seaweed. And currently, no new state water bottom leases have been granted in California for over 25 years.

The existing regulatory process was designed for permitting commercial shellfish operations rather than small-scale seaweed farms. There are a number of different factors that make seaweed farming unique: it can be low-tech with low environmental impacts, providing marine habitat and uptaking nutrients while serving as a carbon sink and creating a source of food, fuel or feed.

The current pathway to allow the establishment and operation of new ocean farms in California is a multi-phased, time consuming and expensive process. Project related costs may be prohibitively high and can serve as a barrier against any small scale ocean farmer starting up. First, the prospective farmer fleshes out a business plan and selects a location for the proposed operation. Contacting the State Aquaculture Coordinator is the next step, so representatives from the many regulating agencies can be organized into a Project Coordination Team (Team). This Team can help the proponent refine the plan, including its location, methods, and other possible regulatory or any operational challenges that may otherwise be encountered. This engagement occurs through a new tool called the Aquaculture Permit Counter, which is maintained by the Office of the

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1 At Fish and Game Commission hearing in February 2018, an existing state water bottom lease (1985) was approved for reconfiguration, which technically involved a new lease component for purposes of environmental impact analysis.
State Aquaculture Coordinator. By engaging the Team early, surprises are reduced, and chances of successful approvals down the line are increased. At this point, an application is then submitted to the Commission for a state water bottom lease.

Typically, the Commission will refer the application to DFW for recommendations, and go through a number of procedural and environmental review steps, including public notice that the lease application is to be considered by the Commission at a public hearing. The application submittal triggers the environmental review process, i.e. CEQA, required to identify significant environmental impacts related to the farm and to avoid or mitigate any related impacts. The CEQA study, which is usually conducted by a private consultant (whether contracted by the lead agency or the project proponent) can cost anywhere from several thousand dollars and upwards into six figures, e.g. $500,000, with filing fees to the State costing around $3,500. The second phase involves a complex and multi-agency (state and federal) permit application process and calls for extensive reviews as each project is assessed on a case-by-case basis. Possible permit fees may be in the range of $5,000 to $10,000 per project. Final approvals may take several years to be granted. However, if the Project Coordination Team is properly engaged at the outset, this multi-agency process should be less complex and time-consuming.

Note the projected timelines and estimated costs presented here may vary according to each project and will depend on its unique environmental and political circumstances. As there have been no new bottom leases granted by CDFW since 1991, there are currently no existing examples of recently approved ocean farms that could be used as a guide and precedent. In order to support the expansion of mariculture practices in California, specifically seaweed farming, new policy and regulations are needed.

This document outlines the steps required to set up an ocean farm. The first step is to secure approval by the Fish and Game Commission for a state water bottom lease. The lease application triggers the environmental review process. Once a lease has been granted, the multi-agency permitting process can begin. Guidelines follow that show the steps that need to be taken along with providing detailed information. Projected costs and estimated timelines are provided, and potential barriers and opportunities identified.

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## PERMITTING AGENCIES

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<tr>
<th>Permitting Agency</th>
<th>Acronym</th>
<th>Type of Requirement</th>
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<td><strong>STATE AGENCIES</strong></td>
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<td>Approved species, methods, lease details (in no-granted state tidelands only), aquaculture registration</td>
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<td>Fish and Game Commission</td>
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<td>CCC</td>
<td>Coastal Development Permit/Consistency Determination Letter</td>
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<td>US Army Corp of Engineers</td>
<td>ACOE</td>
<td>ACOE regulates wetlands and other waters of the United States per Clean Water Act (CWA)</td>
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<tr>
<td>Regional Water Quality Control Board</td>
<td>RWQCB</td>
<td>401 Water Quality Cert or Waste Discharge Requirement i.e. Clean Water Act (CWA)</td>
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<tr>
<td>State Water Resources Control Board</td>
<td>SWRCB</td>
<td>Water Rights Permit/ General Industrial Stormwater Permit</td>
</tr>
<tr>
<td>State Lands Commission</td>
<td>SLC</td>
<td>During initial FGC process to consider state water bottom leases, SLC needs to confirm no conflicting land use at site. Permit required if using State owned property i.e. above mean high tide line (MHTL).</td>
</tr>
<tr>
<td>California Dept of Public Health</td>
<td>CDPH</td>
<td>Operators License</td>
</tr>
<tr>
<td><strong>FEDERAL AGENCIES</strong></td>
<td></td>
<td></td>
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<tr>
<td>National Oceanic &amp; Atmospheric Administration/ National Marine Fisheries Service</td>
<td>NOAA/ NMFS</td>
<td>Formal Consultation regarding Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), EFH</td>
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<tr>
<td>US Fish and Wildlife Service</td>
<td>USFWS</td>
<td>ESA, MMPA</td>
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<tr>
<td>National Marine Sanctuaries</td>
<td>NMS</td>
<td>Role of NMS differs among specific sanctuaries according to own individual authorities. For instance in Tomales Bay, Greater Farallones National Marine Sanctuary (GFNMS) has no permit authority but by agreement (MOA) with State they provide comments when leases are considered</td>
</tr>
<tr>
<td>US Coast Guard</td>
<td>USGS</td>
<td>Maritime law enforcement agency requires aquaculture leases &amp; structures to be marked</td>
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<td>Department of Public Health</td>
<td>DPH</td>
<td>Certification of growing area (pre-harvest) after sanitary survey; various post-harvest (safe-handling) requirements</td>
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<tr>
<td>Native American Heritage Commission</td>
<td>NAHC</td>
<td>Notification of proposed action to California Native American tribe for any tribal interests/traditional lands within project area</td>
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<td>Return certain Native American cultural items to lineal descendants &amp; culturally affiliated Indian tribes</td>
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<td><strong>LOCAL AND REGIONAL GOVERNMENT PLANNING AGENCIES (as applicable)</strong></td>
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<tr>
<td>Harbor or Port District</td>
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<td>Use Permit or equivalent</td>
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<tr>
<td>City/County</td>
<td></td>
<td>Environmental Health Department</td>
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<tr>
<td>City/County</td>
<td></td>
<td>Public Notice. Local review process. Building permits</td>
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</tbody>
</table>
.getProjectedTimelines()

1. **State Water Bottom Lease Application: 18 mths to 5 yrs approx.**
   Fish & Game Commission (FGC) w/ Dept of Fish & Wildlife (CDFW) support is Lead Agency issuing state and private water bottom leases and requires:
   - CEQA/NEPA Documentation: Preparation of Environmental Impact Report (EIR), Initial Study (IS), Mitigated Negative Declaration (MND), CatEx, etc.
   - Project site location identification & determination of ownership
   - State Lands Commission (SLC): confirms no conflicting land use of site
   - CDFW: species, methods, lease details, importation (as applicable) are determined as part of lease process & species listed on lease approval
   - Project description, surveyed project location map, & 5-yr business plan
   - Application submittal made to FGC incl. above documents w/ fees
   CEQA Review process: Notice issued by State Clearinghouse for 30-day public & multi-agency review and comment period
   FGC: Following review, Marine Advisor writes staff report for public hearing
   FGC Hearing: consent calendar item possible if all issues addressed & not any public/agency opposition. If there are public concerns, hearing will include time for public process & sometimes may have to continue to later hearing.

2. **Multi-Agency Permit Application Process: “it depends” 2 – 5 yrs approx.**
   Pre-Application Review: Permit Counter process allows for multi-agency review and to provide comments before lease application is underway. Once a project is granted FGC lease approval then multi-agency regulatory permit application process to allow for farm operations can begin as follows:

   **Primary Agencies** (in order of importance/challenge factor)
   - California Coastal Commission (CCC): Coastal development permit (CDP) application submitted, staff review takes 30-days on receipt of application. If deemed incomplete, notice is sent for missing information. Process repeats until staff deems application is complete & then file it. Permit Streamlining Act (PSA) states 180-days given to write report & present item at public hearing which occurs monthly. 90-day extensions granted if staff request Commissioners to postpone & item is heard within 270 days.
   - CDFW: species, methods, lease details, importation (if applicable)
   - Tribal Interest Determination (identified as part of CEQA process)
   - Army Corps of Engineers (ACOE): existing 401 statewide permit
   - NOAA Fisheries (&/or US Fish & Wildlife Service (USFWS) if applicable):
formal consultation to assess impacts happens through the ACOE permit: Environmental Species Act (ESA), Essential Fish Habitat (EFH), Marine Mammal Protection Act (MMPA)

- Regional & State Water Quality Control Board Certification: covered by general NPDES permits & if de minimis project (aquaculture) discharges regulated by individual/ general NPDES permit (before/after ACOE)
- Local Govt Agency: Use Permit (or equivalent)

Secondary Agencies for Consultation
- US Coast Guard
- National Marine Sanctuaries (Farallones, Monterey, Channel Islands)
- USFWS

**PROJECTED COSTS (Estimated)**

**Phase 1: State Water Bottom Lease Application for Ocean Farm Location**

Application submittal: $500
Completed application reviewed by DFW before presentation at FGC public hearing for final review and approval of water bottom lease and terms.

Bottom Lease application requires the following information:
- CEQA Review: Environmental Impact Report (EIR) to assess potential environmental impacts of project & identifies specific mitigation measures
- Initial Study (IS) & Mitigated Negative Declaration (MND) document preparation costs are wide ranging, approx. $25,000 to $500,000+ incl. costs for consultants to generate and review report(s)

**CEQA Environmental Document Filing Fees**
- EIR: $3168
- MND or ND: $2280 each
- County Clerk Filing Fee: $50 + any additional applicable fees

**Other Required Documents**
- 5-year business plan: consultancy fee
- DPH testing: cost to conduct water quality surveys

**Phase 2: Multi-Agency Permit Applications for Operating Ocean Farm**
- California Coastal Commission: coastal development permit (CDP) filing fee is determined by size in sq/footage, eg 10,000 sq/ft = $11,670 fee; or by the project development cost, e.g. up to $100,000 cost = $3,501 fee
- Army Corps = $100 (payable prior to issuance)
- State Water Board/Regional Water Board: if covered by NPDES Permit, then Aquaculture project is considered De Minimis = $2062
- DFW Aquaculture New Registration annual (Form FG750) = $853
- NOAA/NMFS: project review & agency determination
- Local Jurisdiction = City/County Planning Dept fees
Operational Costs
- DFW Bottom Lease: $50/acre per year + Privilege taxes (costs vary with species – levied per landed pound or wet ton)
- DFW Aquaculture Registration Annual Renewal: $536
- DFW Aquaculture Registration Annual Surcharge: $642
- Late Fee: $158 (if application submitted after April 1st)

BARRIERS

1. Regulatory Challenges
   - Complex process for obtaining water bottom lease and related permits to establish ocean farms in California i.e. timeline, costs, issues, potential and unknown impacts
   - Determination of suitable locations for ocean farm sites can also lead to potential conflicts (and public opposition) w/ other existing coastal dependent uses in same area. For example, farms may compete in coastal areas with protected public access, e.g. recreational uses, tourism, fishing
   - Potential impacts of ocean farming (and related activities) on existing surrounding marine environment (e.g. direct impact on environment, competition with other plants such as eelgrass; loss of gear, equipment and generating debris in the water)
   - Lack of scientific evidence to demonstrate success e.g. pilot farm
   - Lack of knowledge transfer between scientific research & industry
   - No current legislation or regulations specific to seaweed farming, cultivation methods, etc.
   - Unknown impacts may lead regulators to err on side of caution when imposing permit conditions of approval that are prohibitively expensive or unnecessarily restrictive

2. Costs
   - Operational Costs
   - Condition Compliance: complying w/ regulations burden on farmer
   - Cost of Bonding/Clean-up
   - Lease application and multi-agency permitting fees incl. CEQA
   - DFW: agency “taxes”; annual permit fee & bottom lease fee
   - Water quality testing conducted on regular basis e.g. monthly

3. Identifying Ocean Farmers
   - Need ocean farming skills &/or training
   - Financial investment for gear & equipment incl. boat
   - Business expertise (lease application requires 5-yr business plan)

4. Farm Locations
   - Location in state waters: avoid conflict w/ fisheries, protected

2 If total gross sales were at least $25,000 in previous registration year
species and habitat, e.g. ESA, EFW, MPAs, etc

● No existing GIS spatial planning maps to use for reference
● Protected sites like bays (e.g. Tomales Bay, Morro Bay, SF Bay etc.) preferred, Pacific storms can be detrimental to operations

5. Public Perception
● Lack of knowledge regarding mariculture and ocean farms can lead to public opposition & slowing down of the permitting process

OPPORTUNITIES

● California’s Coastal Act calls out coastal dependent uses as priority use in coastal zone, i.e. aquaculture
● FGC Bottom Lease terms allow for 15 year approval w/ 10-year extension, i.e. 25 years
● Public knowledge and support is growing through outreach, e.g. press
● Support state legislative effort to propose future policy changes

FURTHER INFORMATION

If you have any questions or comments regarding the information presented here in this document, please contact:

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GLOSSARY of ACRONYMS

ACOE: US Army Corps of Engineers
CCC: California Coastal Commission
CDFW: California Dept of Fish & Wildlife
CDP: Coastal Development Permit
CDPH: California Dept of Public Health
CEQA: California Environmental Quality Act
CWA: Clean Water Act
EFW: Essential Fish Habitat
ESA: Endangered Species Act
FGC: California Fish and Game Commission
GIS: Geographic Information Systems
IS: Initial Study
LCP: Local Coastal Program
MMPA: Marine Mammal Protection Act
MND: Mitigated Negative Declaration
ND: Negative Declaration
MPA: Marine Protected Area
NEPA: National Environmental Policy Act
NMFS: National Marine Fisheries Service
NOAA: National Oceanic Atmospheric Administration
NPDES: National Pollutant Discharge Elimination System Permit
Porter-Cologne Act: Porter-Cologne Water Quality Control Act
RWQCB: Regional Water Quality Control Board
SLC: State Lands Commission
SWRCB: State Water Resources Control Board
USFWS: US Fish and Wildlife Service
USGS: U.S. Coast Guard
WQC: Water Quality Certification
SELECTED STATE & FEDERAL AGENCY CONTACTS

California Dept of Fish & Wildlife (CDFW)
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