



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

STATE OF CALIFORNIA  
EDMUND G. BROWN JR., GOVERNOR

NATURAL RESOURCES AGENCY



California Department of Fish and Wildlife  
1416 Ninth Street, 12th Floor  
Sacramento, CA 95814

**Shellfish Aquaculture Best Management Practices  
Stakeholder Discussion  
Meeting Agenda  
July 17, 2017, 1:00 – 3:00 PM**

**Marconi Conference Center –  
ATTENTION: Room Correction  
Now at BUCK HALL  
(not McCargo Room)  
18500 Shoreline Highway (SR 1), Marshall, CA**

This meeting may be audio-recorded

**Meeting Goals**

- Communicate intent of a rulemaking for shellfish aquaculture best management practices
- Understand the state's rulemaking process and opportunities for public engagement
- Best management practices categories discussion and feedback

**1. Welcome**

- (A) Introductions and ground rules
- (B) Statement of meeting goals

**2. Overview of background and milestones**

(see meeting materials for more detailed background information)

**3. Staff overview of the State rulemaking process**

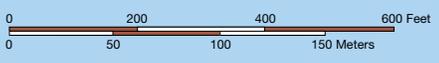
**4. Best management practices (BMPs)**

- (A) Regulatory approach
- (B) Developing BMP categories
- (C) Group discussion about BMP categories

**Adjourn**

# Marconi Conference Center

State Historic Park



### Legend

- |  |                            |  |                    |
|--|----------------------------|--|--------------------|
|  | Major Road                 |  | Park Building      |
|  | Paved Road                 |  | Accessible Feature |
|  | Unpaved/Service Road       |  | Parking            |
|  | Trail: Hike                |  | Restrooms          |
|  | Accessible Pedestrian Path |  | Viewpoint          |
|  | Intermittent Stream        |  |                    |
|  | Historic Building          |  |                    |

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## Scope of Meeting Today

- Understand the intent of this rulemaking
- Best Management Practice (BMP) categories discussed
- Accountability, Enforceability, and Funding – necessity, challenges, and metrics: briefly discuss
- Understand the rulemaking process and opportunities for future engagement

## Background

### **State Code and Regulations**

The Legislature declared in Public Resources Code section 826 that it is in the interest of the people of California to encourage the practice of aquaculture. It is also the policy of the Fish and Game Commission (Commission) to encourage the conservation, maintenance, and utilization of the living resources of the ocean and state waters for the benefit of all citizens of the state, including the development of commercial aquaculture (Fish & Game Code section 1700). As recently as 2014, the Legislature resolved unanimously in both houses its support for access to additional acreage for shellfish farming and restoration, and an improved permitting process that is efficient and economical (Assembly Joint Resolution 43, Chesbro 2014).

(<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=106688>)

State law authorizes the California Fish and Game Commission to lease State water bottoms or the water column to any person for aquaculture, if such a lease is in the public interest, determined in a public hearing that is conducted in a fair and transparent manner, with notice and comment, and in accordance with Commission procedures. State law provides authority to the Commission to adopt regulations governing terms of the leases. A comprehensive explanation of specific state laws and regulations pertaining to aquaculture leases and their administration can be found in the Department's Information Leaflet, "*Regulations Governing Leasing of State Water Bottoms for Aquaculture*" available online.

(<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=27450&inline>)

In particular, the administration of State Water Bottom Leases for aquaculture follows Fish & Game Code (FGCode) §15400 and Title 14 California Code of Regulations (CCR) §237. Although language in FGCode §15400 requires that a lessee of a marine *finfish* aquaculture site establish Best Management Practices, the same requirement is not explicitly delineated in code or regulations for *shellfish* aquaculture leases.

### **Aquaculture Lease Oversight**

There has been an increase in public attention focused on shellfish aquaculture practices and stewardship, particularly related to marine debris and certain other practices associated with aquaculture leases within state waters. Although FGCode §15409 requires leaseholders to return a lease site to its original condition upon lease *termination*, ensuring that leaseholders conform to certain environmental standards and operational practices during the course of operating the lease relies on the language and conditions contained in each individual lease agreement, which may vary in its content. Although the Commission adopted a new, standardized lease template for use on subsequent renewals, amendments, and new leases, some leases are midway through their terms and may not be subject to revision until the term expires.

For example, the species and methods approved by the Department and Commission for cultivation have traditionally been delineated within the terms of each lease, meaning that the Commission (as Lessor) must amend the lease in order to allow different species to be cultivated or culture method to be changed. This creates an excessive administrative burden to be able to adaptively manage leases, and may restrict the adoption of methods

or species that may be an improvement to public trust resources in addition to the benefits for a leaseholder. By the same logic, incorporating BMPs into lease language adds to this administrative slowness, especially when there is likelihood that practices may merit amending as technology improves, ocean conditions change, or new concerns arise.

### ***Best Management Practice Plans***

A more practical alternative to amending lease conditions as a means to adaptively manage public trust (and State administrative) resources may be to require best management practice (BMP) **Plans** from shellfish aquaculturists that are reviewed and approved by the Commission on a regular cycle (e.g.: every 5± years). There is precedent for this approach in the Commission’s regulatory oversight of kelp harvests (e.g.: Kelp Harvest Plans, sections 165 and 165.5, Title 14, CCR) and in the aforementioned statutory language in Fish and Game Code [section 15400(b)(4)] that pertains to marine finfish leases that may be issued in the future.

Shellfish aquaculture BMPs focus attention on both sustaining acceptable operations and production levels, as well as promoting sound environmental practices that avoid impact to the marine environment. BMP categories may be broadly defined by regulation to ensure that proposed BMP Plans across the diversity of shellfish operations throughout the state address primary concerns. Such categories to be incorporated into these Plans might include: gear design/maintenance/operation, “good neighbor” policies, environmental stewardship, staff training & awareness, and biosecurity measures, among others. BMPs that are developed by leaseholders, and reviewed and approved by the Department of Fish and Wildlife and the Commission should ensure buy-in from the lease operators, and allow for more nimble and efficient oversight by the State. The open, public meetings of the Commission also provide a more transparent means to address public stakeholder concerns. Several growers with current leases in California have expressed a willingness to formalize BMPs that are beneficial and compatible with their lease operations. There are many existing examples of BMPs which have been incorporated into Environmental Codes of Practice or Third-Party Certification Standards. Some of these existing BMPs have been adopted by other states, countries, and grower organizations. These products have been helpful in informing this rulemaking approach, and constitute the core themes within the suggested categories for discussion in this meeting.

It is important to recognize that shellfish aquaculture is not practiced uniformly in all locations throughout California, for a variety of reasons. Although bays and estuaries have historically been and continue to be important locations for shellfish culture, offshore sites (in deeper water) show great potential as well. Consequently, the outreach to stakeholders for this potential rulemaking is not limited to one part of the State and will be continued until a broad range of considerations are heard and incorporated into a rulemaking proposal. At least one other public stakeholder meeting will be scheduled in Southern California at a future date and location that has not yet been determined, but will likely happen in Fall 2017, prior to formally starting the rulemaking process. (A brief presentation of the rulemaking process will be provided during the meeting, and is not included here.)

### ***Rulemaking Process to Date***

Commission and Department staffs have discussed regulatory approaches to requiring Best Management Practices (BMP’s) on state water bottom leases for shellfish aquaculture since the matter was highlighted at the April 8<sup>th</sup>, 2015 Commission meeting. An internal working was formed soonafter with perspectives representing the legal, regulations, enforcement, and aquaculture disciplines included. Through changes in Commission and staff makeup (including the replacement of two commissioners and other staff leadership and legal counsel changes), progress in maintaining the discussion has been intermittent, but forward-moving.

Ultimately, a review of options was considered to incorporate a BMP requirement either: a) into the terms of each individual lease, or b) through a new regulation requiring the submittal of BMP’s covering specific BMP categories

that would be subject to review and approval by the Commission. These options were presented by both Commission and Department staff at the February 10<sup>th</sup>, 2016 Commission meeting with a consensus from this working group that a rulemaking approach had numerous advantages, including:

- the speed and efficiency of implementation across shellfish operations (conversely, leases can only be changed when created, renewed, or amended, and must be processed with more involvement individually and across other agencies);
- the ability to set clear categories, standards or guidelines for shellfish aquaculture BMP's without being overly prescriptive;
- the ability to establish a requirement for periodic updates and reviews for all approved plans;
- a resulting flexibility to adaptively manage over time and by location throughout the State; and
- by way of the Commission's open meeting process, providing a mechanism for continued stakeholder input.

The Commission concurred and directed staff (at that Feb 2016 mtg) to continue along the path toward a rulemaking approach. In January 2017, a regulatory change concept was proposed and has been considered for the Commission's regulatory calendar. A formal rulemaking would be triggered by an Initial Statement of Reasons (ISOR) for a regulation change; a step that has not been started, and is to be informed by the outcomes of public stakeholder sessions such as this. In addition, Commission and Department staff recognizes a larger collection of lease oversight and administrative upgrades are necessary and are working to address them as needed. The immediate need for BMPs will be the focus of these meetings.

In addition to the internal working group's efforts, shellfish grower/leaseholders in Tomales Bay first convened a meeting of their own in early May 2016, inviting the State Aquaculture Coordinator to participate. They reviewed and discussed further revisions to a draft list of BMPs that were previously submitted to the Commission in April 2015. The growers expressed general support for the development of BMP requirements, and a commitment to abide by them, and refined their plans for cleanup efforts both within their leases and across all of Tomales Bay. They would continue to refine their lists of practices individually and collectively, and requested Department staff's help in keeping their efforts coordinated and proactive. A followup meeting of this group of Tomales Bay growers convened in December 2016, where, in addition to continued cleanup efforts, biosecurity and health management practices were discussed with the state's shellfish pathologist.

### **Categories**

In reviewing various management practices that have been proposed as "best", it is obvious that one list will never apply effectively to all shellfish growers throughout the state. It is also apparent that there are certain common themes that emerge from such lists. The primary goal of this meeting is to focus on these themes, which aim to result in certain outcomes coming from adherence to practices by growers. For instance, rather than require a BMP that says "all oyster bags must be made only this way", a desired outcome could "require the use of designs that eliminate or greatly reduce the incidence of the bag falling apart or getting away from its installed location". How it accomplishes the desired outcome is subject to the specific operational needs of the farm, the circumstances of the location, available design technology & innovations, and cost-benefit considerations. Growers would commit to the practices they will adopt in order to achieve the State's desired or required outcomes. How the grower accomplishes this is something that we should expect will evolve with innovations, technology, and better understanding – and the State be adaptive in its management.

The main question to address in this effort is:

"What does success look like, in terms of outcomes we'd all like to see from the adherence to best management practices, in light of what is practical and achievable within the business enterprises of commercial shellfish aquaculture, that are operated in public waters - held by the regulating agencies in the public trust?"

Below is a draft list of BMP categories prepared by Department of Fish and Wildlife staff for consideration by meeting attendees:

**DRAFT BMP Categories** – starting point for discussion

**Robust designs and siting**

meant to withstand elements and prevent litter  
continual improvements, reduce use of single-use materials (eg: zip-ties)

**Operational discipline**

winter conditions prep  
removal of unsuccessful/derelict gear and materials  
operational tidiness & discipline

**Training & staff oversight**

regular self-patrolling

**Biosecurity & disease/AIS prevention considerations**

fouling protocols

**Sensitive environments and protected species interactions**

entanglement avoidance  
eelgrass & wildlife buffers and interactions  
vessel & equipment use (boats & vehicles)