



California Fish and Game Commission
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STATE OF CALIFORNIA
EDMUND G. BROWN JR., GOVERNOR

NATURAL RESOURCES AGENCY



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Shellfish Aquaculture Best Management Practices Stakeholder Discussion July 17, 2017

Marconi Conference Center
18500 Shoreline Highway (SR 1), Marshall, CA

Meeting Summary

Meeting Goals

- Communicate intent of the rulemaking
- Understand the rulemaking process and opportunities for future public engagement
- Best management practices (BMP) categories discussion and feedback

1. **Welcome** – California Fish and Game Commission (Commission) Sea Grant Fellow Heather Benko provided a welcome, covered ground rules, and invited all staff and participants to introduce themselves. The following staff of the Commission and California Department of Fish and Wildlife (Department) were present:

Commission Staff

Susan Ashcraft	Marine Advisor
Heather Benko	Sea Grant State Fellow

Department Staff

Randy Lovell	State Aquaculture Coordinator
Kirsten Ramey	Senior Environmental Scientist Supervisor
Andrew Weltz	Environmental Scientist

2. **Overview of background and milestones** – Presented by Randy Lovell

The impetus for the jointly-led aquaculture BMP public meeting originated from community members who raised concerns to the Commission on the trash and plastic pollution produced by aquaculture leaseholders in Tomales Bay. Developing good practices in aquaculture fits into a larger picture of stewardship in general, and the purpose of this meeting is to look at the practices of aquaculture leaseholders to determine what criteria need to be considered in a BMP plan to promote greater stewardship of the public trust resource. The topic is focused on BMPs for shellfish aquaculture conducted on state water bottom leases issued by the Commission.

The Commission directed staff to begin to identify categories of BMPs that have application to California shellfish farms. The goal of this meeting is to begin to identify potential core elements or categories of BMPs for that effort.

The focus of the conversation is on leases under the jurisdiction of the Commission and how to best match the strength of regulations with responsible commitment from leaseholders to eliminate contributions to the problem of plastic pollution in the ocean, as well as other areas of responsible management.

The use and application of BMPs is a concept that strives to be nimble, effective, and achieves commitment from both leaseholders and public stakeholders through an adaptive and transparent management approach. The right solution will find a balance between social and economic importance of shellfish aquaculture (i.e., locally grown seafood, working waterfronts, and economic stimulus) and protecting the public trust resource.

3. Staff overview of the State rulemaking process – Presented by Susan Ashcraft

The authority of the Commission extends to issuing leases for the purpose of aquaculture on all state lands in California, except in Humboldt Bay. The terms of each lease are mandated by the Commission before the lease is executed.

The Commission decided to incorporate BMP language into a regulation instead of into the language of the leases themselves in order to allow for flexibility in the implementation and enforcement of the requirements. If BMP language was inserted into the lease, it would only be reviewed by the Commission when the lease was up for renewal (in the case of current leases, only once every 20-25 years). If a new regulation is adopted around the implementation of BMPs, there could be more regular reviews by the Commission on the BMP requirements.

A brief outline of the Commission's rulemaking process was provided, including opportunities for public input

4. Best management practices (BMPs)

(A) Regulatory approach – Presented by Susan Ashcraft

The Commission recognized that while some BMPs may broadly apply to all growers, in some instances BMPs would need to be individualized based on the unique conditions on each lease. Therefore, rather than define a standardized set of BMPs, a regulation would specify what categories of BMPs must be included in BMP plans. The regulation would require that growers develop individual BMP plans specialized for their individual lease area(s) that address all BMP categories defined in regulation for approval by the Commission.

(B) Developing BMP categories Presented by Kirsten Ramey

Goals: The overarching goal is to limit the risk of undesirable ecological effects to an acceptable level while allowing for sustainable shellfish production. More specifically, the goals for BMPs are to (1) minimize pollution and/or environmental impacts of shellfish aquaculture, (2) provide guidance for sustainable shellfish production while safeguarding the environment, (3) support adaptive management within acceptable bounds, and (4) promote safe and productive uses for state waters.

Considerations: Ecological impacts that we are guarding against, acceptable and unacceptable levels of impact, achievability of desired end results, BMPs versus performance standards – should the “standard” set objectives that are not achievable with current technology or practices?

Current Categories of BMPs under Consideration:

- Site selection and access
- Materials/operations/maintenance
 - robust designs
 - operational discipline
- Maintenance of environmental quality
 - habitat
 - water quality
 - species impacts/considerations
- Disease prevention
 - biosecurity

(C) Group discussion about BMP categories

A variety of ideas were brainstormed by stakeholders, reflecting concerns or suggested areas of focus for BMPs, including:

Site Selection/Access

- Ensuring recreational, navigational access
- Buffer zones to limit spillover effects into potentially sensitive habitats, impacts on navigation, etc.
- Clear boundary marking

Materials, Operations, and Maintenance

- Education/training for aquaculture workers on environmental responsibility/stewardship
- Solid waste management plan
- Separate ecological impacts from human use impacts

Maintaining Environmental Quality

- Ensure BMPs are consistent with established standards to avoid duplication
- Set minimum acceptable levels of impact
- Prioritize essential fish habitat and other sensitive habitats
- Prioritize special status and keystone species
- Incorporate adaptive management component

Disease Prevention

- Require use of triploid (sterile) oyster seed for some non-natives
- Managing risk of naturalization of non-native cultivars

General

- Specific BMPs for areas of specialization
- Set benchmarks - measurable and enforceable standards

- Measure cumulative impacts, including off lease areas
- Lessons from Humboldt Bay on site selection around eel grass, debris, etc.
- Consider carrying capacity of areas sited for aquaculture leasing
- Suggest regional plans that help define appropriate siting
- Define outcomes being targeted with BMPs

Parking Lot Items

- Financial surety
- Lease renewals and new lease applications
- Define native versus non-native versus invasive
- Legacy debris removal
- Interagency disclosure and collaboration for easier public review of necessary documents
- Enforcement and consequences
- Role of permitting process (including the California Environmental Quality Act and the National Environmental Protection Act) versus BMPs
- Value of outreach and education for the general public
- Performance-based planning

Adjourn – The meeting adjourned at approximately 4:00 p.m.