



California Fish and Game Commission  
Attention: Marine Resources Committee  
1416 Ninth Street, Room 1320  
Sacramento, CA 95814  
*Via electronic mail: [fgc@fgc.ca.gov](mailto:fgc@fgc.ca.gov)*

February 21, 2018

Re: EAC & Hog Island Comments re. BMPs (Marine Resources Committee Agenda Item #8(B))

Dear Commissioners:

The Environmental Action Committee of West Marin (EAC) and Hog Island Oyster Company (Hog Island) (collectively “we”) submit these joint comments and proposed aquaculture Best Management Practices (BMPs) (*Exhibit 1*) for your consideration prior to the March 6, 2018 Marine Resources Committee meeting. EAC is grass roots environmental non-profit established in 1971, and Hog Island is a shellfish company established in 1983. We both want to ensure that Tomales Bay is clean, healthy, and free of marine debris.

Our comments focus on marine debris management and aquaculture BMPs for Tomales Bay. Since 2015, EAC has advocated to the Fish and Game Commission (Commission) for the formalization of aquaculture BMPs. Hog Island is also supportive of BMP formalization, and already engages in many of the BMP practices listed in *Exhibit 1* voluntarily.

As discussed in EAC’s July 2017 letters to the Commission, EAC is aware that multiple drafts of BMPs have been presented to the Commission, many of which are in the public record. Since July 2017, EAC and Hog Island have developed a revised proposed BMP list, attached hereto as *Exhibit 1*.

We submit this joint letter in hopes of expediting the delayed BMP rulemaking process. We are hopeful that the involvement of the Bren School and their research team may also help move this process along, as well as helping with the uniformity of culture terms. We both agree that bi-annual site inspections of each aquaculture lease by the Department of Fish and Wildlife (Department) are a necessary component of a successful BMP program.

As discussed at the July 2017 BMP stakeholder meeting in Marshall, the best way to incorporate BMPs into each lessee’s operations has yet to be determined. Proposed ideas include the





Exhibit 1: PROPOSED BEST MANAGEMENT PRACTICES REGARDING MARINE DEBRIS FOR TOMALES BAY SHELLFISH GROWERS

Once adopted, the below list of proposed best management practices (BMPs) shall be mandatory and legally binding for all aquaculture lessees. The Fish and Wildlife Department and/or the Fish and Game Commission shall include enforcement provisions for instances of lessee non-compliance with the BMPs. Third party inspections shall take place on all lease sites on an annual basis (at a minimum) to ensure compliance with the following BMPs and to suggest potential improvements. The Department of Fish and Wildlife is an appropriate entity to conduct these inspections. Ideally, inspections shall occur at least bi-annually before and after the winter storm season (i.e. at the end of summer and in early spring). The finalized and adopted BMPs shall be reviewed and revised on a regular basis (at least every ten years) through a transparent public process. As new technologies become available, BMP revisions may be needed in the aim for continuous improvement.

**Training & Education:**

1. Growers<sup>1</sup> shall implement a written training program and processes for their staff<sup>2</sup>, which shall include regular staff education on reducing environmental impacts and marine debris reduction practices, with the goal of marine debris elimination. Growers may be able to partner with other local organizations and agencies regarding implementation of this training program.
2. All staff shall be trained to look for and remove, repair, or secure any loose culture gear on or near growing leases on a regular basis.

**Recover and Reduce Marine Debris (Operational Discipline & Oversight):**

3. Leases and surrounding areas shall be patrolled to recover lost and broken gear on a monthly<sup>3</sup> basis. Where possible, before high wind and storm events, gear shall be properly secured. Following high wind and storm events, patrols shall occur as quickly as reasonably possible or within two weeks.

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<sup>1</sup> The term "Growers" is defined to include aquaculture farmers, growers, and their staff.

<sup>2</sup> The term "Staff" is defined to include all contractors, employees, volunteers, workers, personnel, owners, and operators of each aquaculture lease(s).

<sup>3</sup> For intertidal leases, patrols shall occur at both high and low tides to ensure gear buried in the mud is promptly collected.

4. Growers shall organize or participate in quarterly bay wide clean ups that include walking the bay shoreline and wetlands, in order to gain access to hard to reach areas. Where possible, growers shall aim to work with other coastal clean-up people and/or local organizations to coordinate clean-up efforts. The volume of all debris collected, including non-shellfish related debris, shall be recorded and documented, with the goal being to continually reduce that volume.
5. When tossing out loose bags or bundles of lightweight seed bags, growers shall ensure that all bags or bundles are either heavy enough to not drift away<sup>4</sup> or are secured or anchored to prevent drifting or movement. All loose bags that might drift shall be secured as soon as possible, but at a minimum within two weeks of being tossed out.
6. Growers shall avoid leaving tools, loose gear, and construction materials on leases and surrounding areas for long periods of time (i.e. longer than one week).<sup>5</sup> All materials staged on leases shall be kept neat, and secured, to prevent movement and/or burial.
7. If a culture method is being discontinued, all materials (including but not limited to culture structures and other items) shall be promptly removed (within one year).
8. Staff and contractors shall not litter. All debris and trash (including non-shellfish items) shall be properly disposed of once ashore.

**BMP Compliance, Oversight & Robust Design:**

9. Growers shall implement a monthly self-monitoring and inspection program to certify BMP compliance. The program should include monitoring and recording of marine debris collected (including date, time, and location where possible), and a record of monthly lease patrols and staff education training. The goal of this self-monitoring program is to increase the percentage of recoverability and decrease the volume of lost gear and debris.
10. Growers shall strive to continually improve gear, so that breakage and scattering of debris are minimized. The quest being for zero lost gear.
11. Growers shall strive to avoid the use of single-use materials.<sup>6</sup> Growers shall minimize waste generation by purchasing materials with a long-life span, preferably re-usable, but at least recyclable.<sup>7</sup>
12. Growers shall strive to phase out the use of plastic wrapped blue foam floats and/or floats that are easily degraded by ultraviolet rays or pecked by birds in search of food.
13. Growers shall secure all buoys and/or floats and floating gear properly in order to minimize and ideally eliminate lost gear.
14. A review of lease escrow accounts shall occur on a regular basis (at least annually) to ensure that adequate funds are available to clean up abandoned leases. Growers shall retain the right to perform the clean up of any abandoned leases themselves, so as to not

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<sup>4</sup> Growers shall securely tie large groups of non-floating bags together when deploying bags for future securing to anchor lines to ensure the bags do not drift.

<sup>5</sup> Ideally, tools and other equipment should be removed daily after working on lease areas, including: fencepost drivers, gloves, water bottles, PVC pipes, wires, and ropes.

<sup>6</sup> i.e. copper wires and zip ties

<sup>7</sup> i.e. stainless-steel halibut clips or other re-usable and recyclable materials

EAC & Hog Island Proposed Aquaculture BMPs  
*Exhibit 1* to February 21, 2018 MRC Comments

decrease the balance in the escrow account. Grower led clean-ups shall be subject to third party inspections.

15. All floating gear shall be uniquely and clearly identified with the unique company name and phone number.
16. Annual proof of use forms shall be completed and timely filed with the Department of Fish and Wildlife. Forms shall be made publicly available.