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April 14, 2022

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Ms. Samantha Murray, President  
California Fish and Game Commission  
P.O. Box 944209  
Sacramento, CA 94244-2090  
*Via Electronic Delivery: fgc@fgc.ca.gov*

**Re: FGC Agenda Item 8A: Tomales Bay Oyster Company**

Dear President Murray and Commissioners,

The Environmental Action Committee of West Marin (EAC) is based in Point Reyes Station and has been working to protect the unique lands, waters, and biodiversity of West Marin since 1971. We are committed to preserving the health of West Marin's estuaries, bays, and watersheds.

We submit these comments on Agenda Item 8A (*Tomales Bay Oyster Company: Consider approving Department recommendation to approve adding new methods and further evaluate new species requested for State Water Bottom Lease No. M-430-05 in Tomales Bay*) on behalf of our approximately 1,200 members.

For the last 50 years, as a local environmental nonprofit based in coastal Marin County, we have worked collaboratively to support environmentally sustainable aquaculture with local growers in Tomales Bay when possible. Recently, we have participated in the multiple agency public processes for a consistent approach to aquaculture management, including supporting the 2021 Guiding Principles for Sustainable Marine Aquaculture in California,<sup>1</sup> and serving as an alternate on the Ocean Protection Council statewide aquaculture action plan listening group to support natural resource protection.

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<sup>1</sup> California Ocean Protection Council: *Guiding Principles for Sustainable Marine Aquaculture in California*, [https://www.opc.ca.gov/webmaster/\\_media\\_library/2021/06/Aquaculture-Principles-Public-20210604.pdf](https://www.opc.ca.gov/webmaster/_media_library/2021/06/Aquaculture-Principles-Public-20210604.pdf)

We generally support the proposed special lease conditions 1 and 3-5<sup>2</sup> that expand on the general coastal resource considerations listed in existing lease condition 14 *Compliance*. **However, we take issue with proposed special condition 2 (listed in Exhibit 5 to the April Staff Report) without any supporting analysis.** We are deeply concerned regarding proposed special condition 2 which states, “current cultivation areas where eelgrass has encroached may still be utilized.” We do not support this language due to concerns that the Fish and Game Commission (Commission) is setting a negative precedent for protection of eelgrass (*Zostera marina*) habitat with this special condition.

**We use this opportunity to request that the Commission conduct an analysis, or share any findings made, regarding eelgrass before adopting proposed special condition 2.**

A review of Tomales Bay eelgrass publicly available data indicates that Tomales Bay Oyster Company lease M-430-05 in the southern portion of Tomales Bay has significant eelgrass present.<sup>3</sup>

The February and April Commission staff reports provided no indication of whether any analysis was completed to assess whether the eelgrass was present when the gear was installed or if eelgrass encroached on the development later. If an analysis was conducted, this information should be shared publicly.

Based on the long-history of operations at this location, we ask the Commission to include an analysis connected to the approval of this agenda item to provide evidence that over the decades of Tomales Bay Oyster Company aquaculture cultivation, eelgrass habitat encroached into the area. Without any analysis, it appears that the Commission is assuming that eelgrass encroached rather than citing evidence to support the statement.

*Is the intention of this language in proposed special condition 2 to allow development in eelgrass? If this is not the intention, then an analysis must be completed. Resting on assumptions threatens eelgrass protection in California, in general.*

**Without any analysis, the Commission would set a negative precedent for the protection of this critical coastal resource and would not likely be aligned with other state agencies, like the California Coastal Commission, that have and are issuing development permits throughout**

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<sup>2</sup> Special conditions 1-5 regarding authorization of longline and floating longline gear are listed in the Fish and Game Commission Exhibit 5 to Staff Summary for April 2022, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=200666&inline>

<sup>3</sup> See data available at: California Department of Fish and Wildlife, *Marine*, <https://apps.wildlife.ca.gov/marine/> & Greater Farallones National Marine Sanctuary 2017 eelgrass survey, <https://www.arcgis.com/apps/mapviewer/index.html?layers=8201038e83c54b29b4c804e3ec9b0bc7>, etc.

**Tomales Bay.** We understand this lease (M-430-05) will also be undergoing California Coastal Commission review and analysis related to coastal development permitting, and it is important that there is a coordinated approach between state agencies related to lease and permit conditions including eelgrass protection.

Permitting gear in eelgrass sets a bad precedent for the protection of our valuable resources, and we use this opportunity to raise this concern. We support designated buffers for new development adjacent to eelgrass habitat for all aquaculture leasing. However, we do not dispute the addition of these culture methods.

### **Ecological Significance of Tomales Bay**

Tomales Bay is a RAMSAR site (wetland of international importance)<sup>4</sup> and also recognized by the California Bays and Estuaries Policy for protection. As of 2018, Tomales Bay accounted for 9 percent of California's total eelgrass habitat including approximately 1,300 acres.<sup>5</sup> Eelgrass is the primary type of seagrass found in Tomales Bay. The Bay is also the second major spawning ground for herring (*Clupea pallasii*) after San Francisco Bay.<sup>6</sup> The Bay must be carefully managed for competing interests from tourism/recreational use, and aquaculture and agricultural commercial uses. Tomales Bay is one of our last remaining functional estuaries in the state. The Central Coast Wetlands Group published a highly detailed study of coastal estuaries, which concluded that nearly 750,000 acres of historic tidal wetlands along the West Coast, including enormous swaths of Bay Area habitat, have disappeared largely as a result of development.<sup>7</sup>

### **Ecological Significance of Eelgrass Habitat**

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<sup>4</sup> *Ramsar Sites and the List of Wetlands of International Importance*, <https://rsis Ramsar.org/ris/1215>

<sup>5</sup> Merkel & Associates, Inc., Presentation on *Status, Trends, and Future of Eelgrass in California*, January 18, 2018, [http://www.cmanc.com/web/presentations/Winter2018Presentations/Merkel\\_Keith.pdf](http://www.cmanc.com/web/presentations/Winter2018Presentations/Merkel_Keith.pdf) This presentation also referenced significant recent losses of eelgrass at multiple locations in California.

<sup>6</sup> Kate Sherman and Lisa A. DeBruyckere, *Eelgrass Habitats on the U.S. West Coast: State of the knowledge of eelgrass ecosystem services and eelgrass extent*. 2018, <https://drive.google.com/file/d/1OALYJiDV5ZloyRLmfSHLJOPZCXWaDf13/view>

<sup>7</sup> Fimrite, Peter, San Francisco Chronicle, *New Maps Show How Little is Left of West Coast Estuaries*, (August 17, 2019), <https://www.sfchronicle.com/environment/article/New-maps-show-how-little-is-left-of-West-Coast-14339398.php>; Laura S. Brophy, et. al., *Insights into estuary habitat loss in the western United States using a new method for mapping maximum extent of tidal wetlands*, August 14, 2019, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0218558>

Eelgrass is a foundation species which provides critical habitat<sup>8</sup> and is designated as an essential fish habitat and a habitat area of particular concern for various managed species under the Magnuson-Stevens Fishery Conservation Management Act.<sup>9</sup> It provides spawning and nursery grounds for species such as Pacific herring. Eelgrass has the potential for long-term blue carbon storage and operates as an important carbon sink that will help us combat climate change and increased levels of carbon dioxide in the atmosphere.<sup>10</sup>

Seagrass meadows are also under global threat due to ocean acidification, sea level rise, sedimentation, coastal development, and water quality issues.<sup>11</sup> Eelgrass provides extensive ecosystem services including supporting primary production and nutrient cycling; protecting shorelines by stabilizing sediments; and providing habitat for species that are commercially, recreationally, and ecologically beneficial.<sup>12</sup> Key bird species such as the great blue heron and the black brant also rely on eelgrass.<sup>13</sup> Many shorebird species are in significant decline. Shorebird populations have declined by 66 percent in Tomales Bay since 1989.<sup>14</sup> Eelgrass is also protected under the California Eelgrass Mitigation Policy.<sup>15</sup>

Thank you for your consideration of our comments and your attention to this important coastal resource consideration. We look forward to this month's meeting and presentation.

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<sup>8</sup> Kathryn M. Beheshti and Melissa Ward, *Eelgrass Restoration on the U.S. West Coast, A Comprehensive Assessment of Restoration Techniques and Their Outcomes*, 2021, p. 19, [http://honu.psmfc.org/media/PMEP/Eelgrass\\_Restoration\\_Synthesis/Documents/PMEP\\_Beheshti\\_Ward\\_2021\\_EelgrassSynthesisReport.pdf](http://honu.psmfc.org/media/PMEP/Eelgrass_Restoration_Synthesis/Documents/PMEP_Beheshti_Ward_2021_EelgrassSynthesisReport.pdf)

<sup>9</sup> *Id.* at p. 1,

<sup>10</sup> Greater Farallones National Marine Sanctuary, *Climate Change Impacts*, July 2020, <https://nmssanctuaries.blob.core.windows.net/sanctuaries-prod/media/docs/20200820-climate-change-impacts-greater-farallones-national-marine-sanctuary.pdf>; *see also Blue Carbon Stocks and Exchanges Along the Pacific West Coast*, February 17, 2021, <https://bg.copernicus.org/preprints/bg-2021-27/bg-2021-27.pdf>

<sup>11</sup> Michelle Waycott, et. al., *Accelerating loss of seagrasses across the globe threatens coastal ecosystems*, July 28, 2009, <https://www.pnas.org/doi/10.1073/pnas.0905620106>

<sup>12</sup> Kathryn M. Beheshti and Melissa Ward, *Eelgrass Restoration on the U.S. West Coast, A Comprehensive Assessment of Restoration Techniques and Their Outcomes*, 2021, p. 2, [http://honu.psmfc.org/media/PMEP/Eelgrass\\_Restoration\\_Synthesis/Documents/PMEP\\_Beheshti\\_Ward\\_2021\\_EelgrassSynthesisReport.pdf](http://honu.psmfc.org/media/PMEP/Eelgrass_Restoration_Synthesis/Documents/PMEP_Beheshti_Ward_2021_EelgrassSynthesisReport.pdf)

<sup>13</sup> *Seagrass Beds in Tomales Bay: The Unsung Heroes of Habitat*, Presentation, [https://nmsfarallones.blob.core.windows.net/farallones-prod/media/archive/eco/tomales/pdf/tomalesbay\\_seagrass\\_lecture.pdf](https://nmsfarallones.blob.core.windows.net/farallones-prod/media/archive/eco/tomales/pdf/tomalesbay_seagrass_lecture.pdf)

<sup>14</sup> Nils Warnock, et. al., *Declining wintering shorebird populations at a temperate estuary in California: A 30-year perspective*, Vol. 123, American Ornithological Society, February 10, 2021, <https://academic.oup.com/condor/article/123/1/duaa060/6132586?login=false>

<sup>15</sup> *California Eelgrass Mitigation Policy*, 2014, [https://media.fisheries.noaa.gov/dam-migration/cemp\\_oct\\_2014\\_final.pdf](https://media.fisheries.noaa.gov/dam-migration/cemp_oct_2014_final.pdf)

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Sincerely,



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Executive Director



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cc: Heidi Gregory, Tomales Bay Oyster Company  
Martin Seiler, Tomales Bay Oyster Company  
Susan Ashcraft, Fish and Game Commission