

CALIFORNIA COASTAL COMMISSION

455 MARKET STREET, SUITE 228
SAN FRANCISCO, CA 94105-2219
FAX (415) 904-5400
TDD (415) 597-5885



W12a

CDP Application No. 9-19-1242

(Tomales Bay Oyster Co., LLC)

August 10, 2022

CORRESPONDENCE



Agenda Item W12a

Environmental Action Committee of West Marin

Chair Donne Brownsey
California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105
Via Electronic Delivery: EORFC@coastal.ca.gov

Re: August 2022 Agenda Item Wednesday 12a, Application 9-19-1242
(Tomales Bay Oyster Company, Marin Co.)

Dear Chair Brownsey,

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 regarding Agenda Item W12a, Application 9-19-1242 (Tomales Bay Oyster Company, Marin Co.), 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 participated in the multi-agency public processes for a consistent approach to aquaculture management. Our participation includes supporting the 2021 *Guiding Principles for Sustainable Marine Aquaculture in California*,¹ and serving as an alternate on the Ocean Protection Council statewide Aquaculture Action Plan listening group to support natural resource protection. We hope that some of these statewide efforts will begin to take a holistic approach to the cumulative impacts of aquaculture operations on our state waters. We have also been supportive of strong Coastal Development Permit (CDP) conditions for

¹ California Ocean Protection Council: Guiding Principles for Sustainable Marine Aquaculture in California, 2021. https://www.opc.ca.gov/webmaster/_media_library/2021/06/Aquaculture-Principles-Public-20210604.pdf.

Tomales Bay aquaculture with particular emphasis on collection and removal of aquaculture debris and strong eelgrass protection conditions including Marin Oyster Company's April 2018 CDP application and Hog Island Oyster Company's February 2019 CDP application.

Although EAC is supportive of many of the Special Conditions in the staff report for Application 9-19-1242 (Tomales Bay Oyster Company, Marin Co.) (Staff Report), we are concerned that the Staff Report allows after-the-fact permitting for development that is located within eelgrass (*Zostera marina*) habitat, which is considered a species of Special Biological Significance as outlined in Section 30230 of the Coastal Act. The preservation of eelgrass habitat is a top priority for EAC, and we continue to advocate for strong eelgrass protection measures.

We have included below: 1) information about the importance of eelgrass and its protection in Tomales Bay; 2) portions of the Staff Report that we support; 3) high-level concerns with the report that we do not support; 4) suggested revisions to the Staff Report; and 5) questions about and editorial changes to the report. We also acknowledge the challenges with this application including the recent change of ownership and the long history preceding the current ownership. We appreciate the California Coastal Commission (Commission) staff's strong efforts to work with the applicant to develop a mutually agreeable resolution to the long-standing permitting issues.

I. The Importance of Tomales Bay and its Eelgrass Habitat

Tomales Bay is a RAMSAR site (wetland of international importance).² This designation is in part because Tomales Bay contains approximately 1,288 acres of eelgrass, which accounts for about 9 percent of the total eelgrass habitat in California.³ Eelgrass in Tomales Bay provides the second largest spawning ground for herring (*Clupea pallasii*) after San Francisco Bay.⁴

Furthermore, many bird species rely on the ecological services provided by the eelgrass beds. Up to 31 percent of California's winter population of Brant (*Branta bernicla*), 12 percent of Bufflehead (*Bucephala albeola*), and 6 percent of Black Scoters (*Melanitta americana*) occur on Tomales Bay.⁵ Many waterbirds feed on seagrasses⁶ including eelgrass specialists like the

² Ramsar Sites and the List of Wetlands of International Importance, <https://rsis Ramsar.org/ris/1215>.

³ https://www.cnps.org/wp-content/uploads/2019/11/Fremontia_V46_N2_Wetlands_LR.pdf.

⁴ 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>.

⁵ Kelly, J.P. and Tappen, S.L., 1998. Distribution, abundance, and implications for conservation of winter waterbirds on Tomales Bay, California. *Western Birds*, 29(2), pp.103-120.

⁶ Kollars, N.M., Henry, A.K., Whalen, M.A., Boyer, K.E., Cusson, M., Eklöf, J.S., Hereu, C.M., Jorgensen, P., Kiriakopolos, S.L., Reynolds, P.L. and Tomas, F., 2017. Meta-analysis of reciprocal linkages between temperate seagrasses and waterfowl with implications for conservation. *Frontiers in plant science*, 8, p. 2119.

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Brant.⁷ These eelgrass beds are also the prime spawning areas for winter runs of herring, a fish (and its roe) consumed by several waterbird species⁸ and important for maintaining their winter populations on Tomales Bay.⁹

Eelgrass is considered a species of Special Biological Significance, and it provides the foundation for highly structured habitats in areas that would otherwise be loose sand or silt.¹⁰ As a whole, eelgrass meadows are one of the most productive and diverse marine ecosystems in the world.¹¹ Eelgrass meadows are recognized globally as nursery areas for many taxa and are considered one of the most important juvenile habitats for numerous fish species.¹²

Eelgrass meadows provide essential ecosystem structure, functions, and services.¹³ For example, eelgrass beds slow the movement of water currents and waves, protecting shorelines from erosion and promoting the settlement of suspended sediments.¹⁴ Eelgrass also plays a significant role in carbon sequestration. Along with other seagrasses, eelgrass beds can capture carbon from the atmosphere up to 35 times faster than tropical rainforests.¹⁵ While seagrasses, such as

⁷ Moore, J.E., Colwell, M.A., Mathis, R.L. and Black, J.M., 2004. Staging of Pacific flyway brant in relation to eelgrass abundance and site isolation, with special consideration of Humboldt Bay, California. *Biological Conservation*, 115(3), pp.475-486.

⁸ California Department of Fish and Wildlife, 2019. Draft California Pacific Herring Fishery Management Plan. Report by California Department of Fish and Wildlife, Marine Region, Sacramento, CA.

⁹ Kelly, J.P., Rothenbach, C.A. and Weathers, W.W., 2018. Echoes of numerical dependence: responses of wintering waterbirds to Pacific herring spawns. *Marine Ecology Progress Series*, 597, pp.243-257.

¹⁰ Sherman, K., and L.A. DeBruyckere, 2018. Eelgrass habitats on the U.S. West Coast. State of the Knowledge of Eelgrass Ecosystem Services and Eelgrass Extent. A publication prepared by the Pacific Marine and Estuarine Fish Habitat Partnership for The Nature Conservancy. 67pp.

<https://drive.google.com/file/d/1OALYJiDV5ZloyRLmfSHLJOPZCXWaDf13/view>.

¹¹ Grace E.P. Murphy, Jillian C. Dunic, Emily M. Adamczyk, Sarah J. Bittick, Isabelle M. Côté, John Cristiani, Emilie A. Geissinger, Robert S. Gregory, Heike K. Lotze, Mary I. O'Connor, Carlos A.S. Araújo, Emily M. Rubidge, Nadine D. Templeman, and Melissa C. Wong. From coast to coast to coast: ecology and management of seagrass ecosystems across Canada. *FACETS*. 6(): 139-179. <https://doi.org/10.1139/facets-2020-0020>.

¹² Heck Jr, K. L., Hays, G., & Orth, R. J., 2003. Critical evaluation of the nursery role hypothesis for seagrass meadows. *Marine Ecology Progress Series*, 253, 123-136. <https://www.int-res.com/articles/meps2003/253/m253p123.pdf>.

¹³ Murphy, G. E., et al., 2021. From coast to coast to coast: ecology and management of seagrass ecosystems across Canada. *Facets*, 6(1), 139-179. <https://www.facetsjournal.com/doi/pdf/10.1139/facets-2020-0020>.

¹⁴ Ondiviela B, Losada IJ, Lara JL, Maza M, Galván C, Bouma TJ, van Belzen J, 2014, The role of seagrasses in coastal protection in a changing climate. *Coast Eng* 87: 158–168. <https://www.sciencedirect.com/science/article/abs/pii/S0378383913001889?via%3Dihub>.

¹⁵ Mcleod, E., et al., 2011. A blueprint for blue carbon: toward an improved understanding of the role of vegetated coastal habitats in sequestering CO₂. *Frontiers in Ecology and the Environment*, 9(10), 552-560. <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1890/110004>.

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eelgrass, only make up about 0.2 percent of the total seafloor, they account for almost 10 percent of the global ocean carbon storage.¹⁶

Despite its ecological importance, eelgrass meadows have experienced a significant decline. Eelgrass meadows are threatened by ocean acidification, sea level rise, sedimentation, coastal development, and water quality degradation.¹⁷ Eelgrass is especially vulnerable to human activities, including aquaculture, and is in urgent need of improved management and protection.¹⁸

Eelgrass habitat is of such importance that, under Target 3.1.4 of the Ocean Protection Council's strategic plan and connected to the California Eelgrass Mitigation Plan (CEMP), California has committed to "work with partners to preserve the existing, known 15,000 acres of seagrass beds and create an additional 1,000 acres by 2025."¹⁹

A. Aquaculture can Negatively Impact Eelgrass and Bird Species.

Eelgrass and cultivated bivalves have similar physiological and substrate requirements.²⁰ This results in overlapping distributions and creates concerns over the expansion of aquaculture in coastal estuaries.²¹ The response of eelgrass to bivalve aquaculture, however, varies depending on eelgrass characteristics, aquaculture techniques, harvesting methods, and geographic region.^{22,23}

¹⁶ Fourqurean, J., Duarte, C., Kennedy, H. et al. Seagrass ecosystems as a globally significant carbon stock. *Nature Geosci* 5, 505–509, 2012. <https://doi.org/10.1038/ngeo1477>.

¹⁷ Sherman, K., and L.A. DeBruyckere, 2018. Eelgrass habitats on the U.S. West Coast. State of the Knowledge of Eelgrass Ecosystem Services and Eelgrass Extent. A publication prepared by the Pacific Marine and Estuarine Fish Habitat Partnership for The Nature Conservancy. 67pp.

<https://drive.google.com/file/d/1OALYJiDV5ZloyRLmfSHLJOPZCXWaDf13/view>.

¹⁸ Murphy, G. E., et al., 2021. From coast to coast to coast: ecology and management of seagrass ecosystems across Canada. *Facets*, 6(1), 139-179. <https://www.facetsjournal.com/doi/pdf/10.1139/facets-2020-0020>.

¹⁹https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20200917/Item6_CEMP-Resolution-Staff-Rec.pdf.

²⁰ R.D. Seitz, H. Wennhage, U. Bergstrom, R.N. Lipcius, T. Ysebaert Ecological value of coastal habitats for commercially and ecologically important species *ICES J. Mar. Sci.*, 71, 2014. pp. 648-665.

<https://academic.oup.com/icesjms/article/71/3/648/634683>.

²¹ Ferriss, B. E., Conway-Cranos, L. L., Sanderson, B. L., & Hoberecht, L., 2019. Bivalve aquaculture and eelgrass: a global meta-analysis. *Aquaculture*, 498, 254-262.

<https://scholarworks.wm.edu/cgi/viewcontent.cgi?article=3282&context=vimsarticles>.

²² Howarth, L. M.; Lewis-McCrea, L. M.; Kellogg, M. L.; Apostolaki, E. T.; and Reid, G. K., Aquaculture and eelgrass *Zostera marina* interactions in temperate ecosystems, 2022. *Aquaculture Environment Interactions*, 14(15), 34. doi: 10.3354/aei00426. <https://scholarworks.wm.edu/cgi/viewcontent.cgi?article=3282&context=vimsarticles>.

²³ Ferriss, B. E., Conway-Cranos, L. L., Sanderson, B. L., & Hoberecht, L., 2019. Bivalve aquaculture and eelgrass: a global meta-analysis. *Aquaculture*, 498, 254-262.

<https://scholarworks.wm.edu/cgi/viewcontent.cgi?article=3282&context=vimsarticles>.

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While impacts depend greatly on gear types and other factors, there is evidence that mariculture practices and debris can be detrimental to eelgrass. For instance, in Drakes Estero, mariculture debris inhibited eelgrass growth through chronic shading and disturbance. When the abandoned aquaculture gear was removed, eelgrass cover naturally increased by 249 percent in three years.²⁴

Some limited research has also investigated the relationship between eelgrass and aquaculture with respect to Great Egret (*Ardea alba*) feeding behavior in Tomales Bay. Great Egrets are opportunistic feeders, so understanding their feeding behaviors can help us understand how aquaculture alters habitat. One study found that, while some Great Egrets appeared to perceive shellfish aquaculture areas in Tomales Bay as suitable foraging habitat during limited conditions; aquaculture areas provided less foraging opportunity throughout tidal cycles than natural eelgrass beds.²⁵

Warnock et al.²⁶ recently documented a 66 percent decline in total shorebird number on Tomales Bay over the past 30 years, a period in which the production of commercial shellfish in Tomales Bay increased almost four-fold. They noted that two species which declined by over 70 percent during this time, Dunlin (*Calidris alpina*) and Western Sandpipers (*C. mauri*), have also been found to respond negatively to aquaculture on Tomales Bay²⁷ and also in Ireland (Dunlin only)²⁸. Overall, the cumulative impact of aquaculture on the birds and other wildlife that use Tomales Bay is poorly understood.

B. Eelgrass is Highly Protected.

As is discussed in the Staff Report, eelgrass habitat is protected by federal and state law under the federal Clean Water Act; the Magnuson-Stevens Fishery Conservation and Management Act; the California Coastal Act; and Title 14, California Code of Regulations. According to these laws and regulations, any activities which may potentially impact eelgrass habitat must be mitigated

²⁴ Becker et al., 2020. Drakes Estero Restoration Project Eelgrass Monitoring Report: Year 3. Report to satisfy permitting requirement for California Coastal Commission, National Marine Fisheries Service, US Army Corp of Engineers, and the San Francisco Regional Water Quality Control Board. <https://www.pacificfishhabitat.org/case-study-3-drakes-estero/>.

²⁵ Jennings, S., Lumpkin, D., Warnock, N., Condeso, T.E. and Kelly, J.P., 2021. Great egret (*Ardea alba*) habitat selection and foraging behavior in a temperate estuary: Comparing natural wetlands to areas with shellfish aquaculture. *PLoS one*, 16(12), p. e0261963.

²⁶ Warnock, N., S. Jennings, J. P. Kelly, E. Condeso, and D. Lumpkin, 2021. Declining wintering shorebird populations at a temperate estuary in California: a 30-year perspective. *Ornithological Applications* 123:1-19.

²⁷ Kelly, J. P., J. G. Evens, R. W. Stallcup, and D. Wimpfheimer. 1996. Effects of aquaculture on habitat use by wintering shorebirds in Tomales Bay, California. *California Fish and Game* 82:160-174.

²⁸ Gittings, T., and P. D. O'Donoghue, 2012. The effects of intertidal oyster culture on the spatial distribution of waterbirds. Report prepared for the Marine Institute. Atkins, Cork, Ireland.

for including reducing harmful impacts to existing eelgrass beds and protecting potential eelgrass habitat.

Eelgrass beds are designated as “special aquatic sites” under Section 404(b)(1) Guidelines of the Clean Water Act. As the Staff Report mentions, the Pacific Fishery Management Council identified eelgrass as a Habitat Areas of Particular Concern, and eelgrass is designated as Essential Fish Habitat under the Magnuson-Stevens Fishery Conservation Management Act. The CEMP provides best practices to avoid or minimize the adverse impacts on eelgrass.²⁹ The CEMP framework recommends that any new aquaculture farms avoid eelgrass and implement buffers. Since the Tomales Bay Oyster Company (TBOC) application is an after-the-fact approval of unpermitted activity, it should be reviewed as new development.

II. Support for the Following Stipulations in the Staff Report

We support TBOC’s commitment to remove approximately 3.25 acres of legacy bottom longline gear from areas of the lease that fall outside of California Fish and Wildlife revised boundaries.³⁰ Furthermore, **we generally support special conditions 2 through 11**, which implement enforceable permit conditions to protect eelgrass and other habitat considerations. For instance, we support the minimization of damage by using designated vessel routes to avoid eelgrass propeller cuts. We also commend TBOC in conducting its own eelgrass survey to adequately reflect the current range of the beds, so that the Staff Report can reflect the most current and accurate data. Finally, EAC specifically supports Special Condition 8 to protect Pacific herring, which is a proactive tool to preemptively account for the herring spawning season.³¹ Stipulations like these are integral to maintaining a healthy ecosystem in Tomales Bay.

²⁹ NOAA Fisheries West Coast Region, 2014. California Eelgrass Mitigation Policy and Implementing Guidelines. Available at https://media.fisheries.noaa.gov/dam-migration/cemp_oct_2014_final.pdf.

³⁰ Coastal Commission, *STAFF REPORT: REGULAR CALENDAR*, Tomales Bay Oyster Company, July 21, 2022, page 14. (STAFF REPORT)

³¹ Coastal Commission, *STAFF REPORT*, page 9.

III. High-Level Concerns with the Staff Report:

A. Extensive After-the-Fact Permitting in Eelgrass Sets a Negative Precedent for Other State Operators.

Given the importance of eelgrass in general and for Tomales Bay specifically, we are concerned that the after-the-fact permitting proposed could set a negative precedent, inadvertently allowing for future aquaculture development in eelgrass habitat by emboldening other operators to expand without a permit amendment.

The Staff Report could be more explicit in outlining the consequences of unpermitted actions, although we appreciate the mention of pending enforcement actions.

While we understand the complexity with TBOC's permit, the long history of aquaculture operations in this area, and that it is infeasible at this point for TBOC to entirely avoid eelgrass in the lease area, we remain concerned that future CDP applicants may rely on this permit as precedent to establish aquaculture activities in eelgrass habitat. **Therefore, we recommend that language be added to the CDP that makes clear that this permit is based on unique circumstances. Regarding development in eelgrass, the TBOC permit should *not* be used as precedent for any future permitting.** We propose additional language be added to the Staff Report to clearly indicate the unique situation.

The Commission possesses broad authority under the Coastal Act regarding review of after-the-fact permitting including the ability to file enforcement actions and issue fines.³²

B. Concern About the Continued Usage of Bottom Bags

EAC is concerned that TBOC's CDP allows for bottom bags to be used on 6.4 acres of cultivation area. While "[o]n-bottom culture can have the benefit of improved sightlines for foraging wildlife during certain tides, [] placement directly on the bottom can limit growth opportunities for other marine species, such as eelgrass."³³ The approval of bottom bag usage would negatively impact eelgrass and benthic habitat in the area, which is detrimental to the ecosystem health of Tomales Bay. The Staff Report specifically recognizes the adverse effects, stating "the placement and use for oyster culture of approximately 5,000 (roughly six-square foot) bottom bags on lease M-430-05 would result in the smothering and disturbance of benthic

³² Coastal Commission, STAFF REPORT, page 22. We note that the California Fish and Game Commission recently approved new gear types and added natural resources conditions including an eelgrass condition. However, the Fish and Game Commission draws its authority from CEQA, which relies on a baseline analysis, which is narrower than the Coastal Commission's review authority.

³³ Coastal Commission, STAFF REPORT, page 19.

habitat,” altering “the chemical condition of the sediment and influencing the type, abundance, and diversity of species it supports.”³⁴

C. Impact on Eelgrass and Shorebirds’ Health Including Shading and Other Impacts

Eelgrass provides important habitat, photosynthesizes, stores carbon, and provides nesting and feeding area for shoreline creatures. Growth is severely impaired by shading. Shading occurs when floating gear does not allow light to penetrate the surface and reach the eelgrass. As the Staff Report notes, “[f]loating bag techniques have the benefit of allowing species movement underneath, particularly during high tides, but may have the negative effect of increasing shading, which could hinder growth of eelgrass.”³⁵ **More analysis of shading impacts could be included in the report**, and additional conditions could be added to indicate bag quantity, type, and spacing, mitigating shading impacts.

Furthermore, EAC is concerned for shorebirds in the TBOC permit area. The Staff Report indicates “TBOC’s planting, harvest and maintenance would primarily be carried out on its intertidal lease areas during low tides when the cultivation equipment is exposed, and its personnel can walk among it.”³⁶ TBOC employees walking on intertidal areas is cause for concern when the permit area is a habitat for sensitive birds. Shorebird populations are already at risk and have declined by over 66 percent in Tomales Bay since 1989.³⁷

³⁴ Coastal Commission, STAFF REPORT, page 26.

³⁵ Coastal Commission, STAFF REPORT, page 22.

³⁶ Coastal Commission, STAFF REPORT, page 15.

³⁷ Warnock, N., S. Jennings, J. P. Kelly, E. Condeso, and D. Lumpkin. 2021. Declining wintering shorebird populations at a temperate estuary in California: a 30-year perspective. *Ornithological Applications* 123:1-19. <https://academic.oup.com/condor/article/123/1/duaa060/6132586?login=false>.

D. Aquaculture Leases Without Compliance Assurance in the Form of a Performance Bond

EAC has witnessed the woefully inadequate escrow accounts managed by the Fish and Game Commission for California's aquaculture leases. In many cases, the accounts have limited or no funds. This leaves a concerning gap when operators cease to exist and clean-up is needed³⁸, as well as for compliance issues. While the Staff Report indicates that TBOC has contributed to an escrow account, the amount is not stated nor publicly available. While we have directly witnessed how dedicated Ms. Heidi Gregory, the Farm Manager, is to TBOC, none of us know what the future holds and whether escrow or other funds will be adequate should a change in operations or ownership take place. We also appreciate the clean-up that has already taken place, but the fact that 628 cubic yards of debris was able to accumulate over time indicates why clean-up costs could be extensive. **We recommend that a performance bond be added as a condition to this permit**, as was recently added to the Hog Island Oyster Company Humboldt Bay permit (February 2022 Agenda Item Friday 12a - Application No. 9-21-0561).³⁹

A Performance Bond has the potential to begin to address this regulatory gap, as well as to provide compliance assurances. Unfortunately, throughout our oversight of Tomales Bay and leases statewide, we have witnessed several compliance issues and CDP violations overall. Page 11 of the Staff Report references TBOC compliance issues. We hope that a Performance Bond will help to incentivize timely permit compliance.

E. After-the-Fact Permit Approval of Aquaculture Gear in Areas with Species of Special Biological Significance

EAC has consistently opposed after-the-fact permit approval of aquaculture gear in areas with species of Special Biological Significance. While we acknowledge the challenges of this permit application and the importance of obtaining a permit with enforceable conditions, the proposed CDP would allow after-the-fact permitting of development where eelgrass is present. The Staff Report explains the negative outcomes of after-the-fact permitting, stating “[t]hese after-the-fact and proposed activities have the potential to cause adverse impacts to benthic habitat and

³⁸ For example, restoration and clean-up at Drakes Estero cost \$4 Million. Guy Kovner, The Press Democrat, More Work Ahead to Restore Estero After Drakes Bay Oyster.

Co. Departure, January 9, 2016, <https://www.pressdemocrat.com/article/news/more-work-ahead-to-restore-estero-after-drakes-bay-oyster-co-departure/?ref=related>.

³⁹ There is also a precedent for this type of condition in other aquaculture permitting including conditions in the Ocean Rainforest consistency certification, Marine Bioenergy project, and the Catalina Sea Ranch project. These types of bonds have also been used in other types of permitting like oil and gas and fiber optics cables.

eelgrass, marine wildlife including shorebirds, the productivity of coastal waters and water quality.”⁴⁰ We are generally opposed to after-the-fact permitting.

The Staff Report emphasizes that the evidence is unclear whether the eelgrass preceded the installation of the cultivation beds and equipment.⁴¹ **Regarding any future after-the-fact permitting, which should generally be avoided, we request that the default assumption is that the eelgrass came first, unless the applicant can demonstrate by factual evidence that the equipment was there first.**

IV. Specific Suggested Edits to the Staff Report

We suggest the following revisions to the Staff Report:

Regarding Special Condition 1:

- 1) Any permit amendment or extension requested by the applicant pursuant to Special Condition 1 should be subject to a public hearing and not processed via permit waiver.

Regarding Special Condition 5:

- 2) The Annual Report submitted to the Executive Director pursuant to Special Condition 5 should be made publicly available within approximately⁴² 10 days of its receipt by the Director.

Regarding Special Condition 6:

- 3) Change Special Condition 6 to include “within 30 days of issuance of this permit” to ensure employees are adequately trained on debris reduction within a timely manner. *See Hog Island Oyster Company 2019 CDP, Condition 11.*
- 4) Change Special Condition 6 to add clarification on what is considered ‘gear’ by specifically listing approved gear types, consistent with Fish and Game Commission’s prior approval.
- 5) Add to Special Condition 6 a deadline for marking gear (e.g., within 12 months) where gear is not already marked.

Regarding Special Condition 10:

- 6) The Commission should reconsider the timeframe for Special Condition 10. As it is currently written, TBOC does not have to be in compliance with Special Condition 10 for nearly half the time they are permitted to work. “Within 24 months” is not urgent enough for meaningful impact if the permit will expire within 5 years.

⁴⁰ Coastal Commission, STAFF REPORT, page 22.

⁴¹ Coastal Commission, STAFF REPORT, pp. 22-23.

⁴² We say “approximately,” because this should be consistent with other typical Commission procedures.

General Comments:

- 1) Commission Staff needs to include additional analysis on the impacts of the barge itself. There was an insufficient analysis of the adverse effects of the barge (in terms of shading, for instance) or whether less environmentally damaging alternatives are available.
- 2) If available, consider including more research on the TBOC gear impacts on salmonids and eelgrass. We acknowledge that there is a big research gap on salmonids in Tomales Bay, but we suggest this to raise awareness for future permitting.

V. Questions Regarding the Staff Report:

- 1) What materials need to be removed per Special Condition 6? There is some ambiguity as to what materials fall under the category of abandoned structures. See Hog Island Oyster Company CDP, which defines structures as “including wooden and PVC posts and remnants of cultivation racks.”⁴³
- 2) Ensure that the amount of gear or bags per square foot is unambiguous as a permit requirement. While we acknowledge the need for flexibility in production, to avoid potential future non-compliance, it is helpful to have clarity regarding bag density. For instance, how far apart will the bags be? How many bags per line? How many oysters per bag approximately? The Staff Report references “less than 200 oysters per bag.” EAC appreciates the natural variation in cultivation, and TBOC’s need for flexibility, but language could be included, so TBOC cannot greatly increase production or bag density without additional approval or amendment.⁴⁴

VI. Suggested Editorial Changes to the Staff Report:

- 1) Please clarify the total acreage or footprint of the approved gear in Tomales Bay. The acreage listed in Exhibit 4 adds up to 35.39, while the Staff Report references 33 acres on page 13 of the report.⁴⁵
- 2) The figure numbering should be checked. As originally posted, the figure numbering was off. For instance, Figure 2 references a pier, but Figure 3 shows the pier.⁴⁶
- 3) There is an errant period on page 21, end of the page.

⁴³ Coastal Commission, STAFF REPORT: REGULAR CALENDAR, Hog Island Oyster Company, January 24, 2019, page 8.

⁴⁴ Coastal Commission, STAFF REPORT: REGULAR CALENDAR, Tomales Bay Oyster Company, July 21, 2022, page 26.

⁴⁵ Coastal Commission, STAFF REPORT, page 13; Exhibit 4.

⁴⁶ Coastal Commission, STAFF REPORT, page 12-13.

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VII. Conclusion

Despite these suggested revisions and concerns, EAC is continually thankful for the diligent efforts by the Commission staff to bring California's aquaculture operators into CDP compliance and looks forward to improved transparency and environmentally protective CDP conditions for aquaculture permitting. In addition, EAC recognizes that TBOC strives to achieve environmentally protective measures in their operational practices to reduce environmental harm. We look forward to continued collaboration with TBOC and the Commission to ensure that aquaculture is sustainable and that our coastal waters are biologically productive and free from debris.

Thank you for the consideration of our comments and your unwavering dedication to the protection of our coastal resources.

Sincerely,



Ashley Eagle-Gibbs
Legal and Policy Director



Bridger Mitchell
Board President

cc: Amanda Cousart, Environmental Scientist, California Coastal Commission
Heidi Gregory, Farm Manager, Tomales Bay Oyster Company
Martin Seiler, HACCP Coordinator, Tomales Bay Oyster Company
Cassidy Teufel, Senior Environmental Scientist, California Coastal Commission

Chair Donne Brownsey
California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105
Via Electronic Delivery: EORFC@coastal.ca.gov

Re: August 2022 Agenda Item Wednesday 12a, Application 9-19-1242
(Tomales Bay Oyster Company, Marin Co.)

Dear Chair Brownsey,

On behalf of Audubon California, a state office of the National Audubon Society and our 118,000 members and supporters, we submit these comments regarding Agenda Item W12a, Application 9-19-1242 (Tomales Bay Oyster Company, Marin Co.).

Audubon protects birds and the places birds need, today and tomorrow. Audubon California was established in 1996 as a field program of the National Audubon Society, overseeing the organization's properties and leading conservation efforts in California and along the Pacific Flyway. By bringing people together to appreciate, enjoy, and protect birds and nature, Audubon California and our supporters are building a better future for our state. We accomplish this through conservation, advocacy, community involvement, and by tapping into an active network that include more than 118,000 members, two centers, and 48 affiliated chapters in communities throughout California.

Audubon CA has made significant steps towards restoring and protecting California's coastline. Various coastal habitats play a significant role in buffering storms and sea level rise, sequestering large amounts of carbon, and providing refuge for billions of birds migrating along the Pacific Flyaway every year. Tomales Bay has a significant role along the coast supporting eelgrass habitat that many birds and people depend on. We appreciate the California Coastal Commission staff's work on this application and request that the following items are taken into consideration as this process moves forward:

1. Prioritize the Health and Function of Eelgrass

Eelgrass (*Zostera marina*) is a species of seagrass distributed throughout the northern hemisphere and is the primary species of seagrass found along the Pacific coast.¹

Tomales Bay contains approximately 1,288 acres of eelgrass which provides unique habitat for a variety of species.² Eelgrass is used as spawning ground for herring, feeding grounds for birds, and nursery areas for juvenile species. In the midst of a climate crisis,

¹https://ca.audubon.org/sites/default/files/static_pages/attachments/ehwb_white_paper_audubon_2018_2.pdf

²https://www.cnps.org/wp-content/uploads/2019/11/Fremontia_V46_N2_Wetlands_LR.pdf

eelgrass can also serve a major role in carbon sequestration and can capture carbon faster than terrestrial plants. Despite these benefits, eelgrass habitats are facing impacts like ocean acidification and sea level rise due to climate change, competition from grazers and non-native species, and direct human disturbances from dredging and boats. Given these threats, the Ocean Protection Council has committed the state to preserve the existing 15,000 acres of seagrass beds and create an additional 1,000 acres by 2025.³ We urge the Coastal Commission to ensure that these goals are prioritized and the existing eelgrass beds within Tomales Bay are protected.

2. Protect the Significant Bird Habitat of Tomales Bay

Tomales Bay provides significant habitat for birds and fish. In addition to the critical eelgrass habitat Tomales Bay supports, a variety of habitats can be found within the bay including tidal marsh, mudflats, and a freshwater marsh/riparian corridor. These habitats support over 50 species of waterbirds, including more than 20,000 individuals. The eelgrass beds attract more than 1% of the world's population of Black Brant Geese and the mudflats attract more than 1% of the world's population of Dunlin and Western Sandpipers. Tomales Bay also supports 13 threatened or endangered species. In addition to supporting a large amount of bird species, the bay also supports 10% of California's Coho Salmon and is a major spawning ground for Pacific herring. Given the significance of Tomales Bay, it is designated as an Important Bird Area and is recognized by the international Ramsar Convention as a "Wetland of International Significance".⁴ Tomales Bay plays a vital role in the health and survival of birds and must be protected.

3. Ensure Sustainable Aquaculture Practices

If aquaculture practices are not managed in a sustainable way, severe harm can be caused to the natural environment. All potential harmful impacts should be reviewed thoroughly given the importance of Tomales Bay for a variety of species. Sustainable aquaculture practices should be prioritized to ensure a healthy, resilient and thriving coastline.

We appreciate the work the Coastal Commission and their staff have done to protect California's coastline and ensure aquaculture operators are in compliance of their CDP. Thank you for the opportunity to submit our comments and for your consideration.

Sincerely,

Liliana Griego
Sr. Program Manager, Coasts
Audubon California

³ https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20200917/Item6_CEMP-Resolution-Staff-Rec.pdf

⁴ <https://www.audubon.org/important-bird-areas/tomales-bay>