

**CALIFORNIA COASTAL COMMISSION**

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Staff: C. Teufel-SF

Date: October 24, 2019

## ADMINISTRATIVE PERMIT

**Application No.:** 9-19-1135

**Applicant:** Chris Starbird (Starbird Mariculture, Inc.)

**Project Description:** Request for after-the-fact approval for mooring and use of twelve 224 square foot floating shellfish aquaculture rafts for the cultivation of Pacific oysters and proposed mooring and use of 360 sq.ft. equipment storage barge on one acre of leased state tidelands.

**Project Location:** Submerged tidelands of Marconi Cove, Tomales Bay; within one acre sublease of California Department of Fish and Game Aquaculture Lease No. M-430-06, Marin County.

## EXECUTIVE DIRECTOR'S DETERMINATION

The findings for this determination and any special conditions appear on subsequent pages.

Note: Public Resources Code Section 30624 provides that this permit shall not become effective until it is reported to the Commission at its next meeting. If one-third or more of the appointed membership of the Commission so request, the application will be removed from the administrative calendar and set for public hearing at a subsequent Commission meeting. Our office will notify you if such removal occurs.

This permit will be reported to the Coastal Commission at the following time and place:

**Thursday, November 14, 2019 – 9:00 a.m.**  
**Oceano Hotel & Spa**  
**280 Capistrano Rd.**  
**Half Moon Bay, CA 94019**

IMPORTANT: Before you may proceed with development, the following must occur:



Pursuant to Title 14, California Administrative Code Sections 13150(b) and 13158, you must sign the enclosed duplicate copy acknowledging the permit's receipt and accepting its contents, including all conditions, and return it to our office. Following the Commission's meeting, and once we have received the signed acknowledgement and evidence of compliance with all special conditions, we will send you a Notice of Administrative Permit Effectiveness.

**BEFORE YOU CAN OBTAIN ANY LOCAL PERMITS AND PROCEED WITH DEVELOPMENT, YOU MUST HAVE RECEIVED BOTH YOUR ADMINISTRATIVE PERMIT AND THE NOTICE OF PERMIT EFFECTIVENESS FROM THIS OFFICE.**

JOHN AINSWORTH  
Executive Director

By: Cassidy Teufel  
Senior Environmental Scientist

## **STANDARD CONDITIONS**

This permit is granted subject to the following standard conditions:

- 1. Notice of Receipt and Acknowledgement.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions is returned to the Commission Office.
- 2. Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
- 3. Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
- 4. Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

**SPECIAL CONDITIONS: SEE PAGES 12 THROUGH 15.**

### **EXECUTIVE DIRECTOR'S DETERMINATION (CONTINUED):**

The Executive Director hereby determines that the proposed development is a category of development which, pursuant to PRC Section 30624, qualifies for approval by the Executive Director through the issuance of an administrative permit. Subject to Standard and Special Conditions as attached, said development is in conformity with the policies of Chapter 3 of the California Coastal Act, including those policies regarding public access and coastal

recreation opportunities, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

## **FINDINGS FOR EXECUTIVE DIRECTOR'S DETERMINATION**

### **A. PROJECT DESCRIPTION & BACKGROUND**

The project area is located offshore within the Marconi Cove area on the east side of Tomales Bay, near the community of Marshall in western Marin County (**Exhibit 1**). The project area is a one acre sublease established by the California Fish and Game Commission within the larger State Water Bottom Lease No. M-430-06, a roughly 10 acre area of submerged tidelands leased to the Cove Mussel Company for the cultivation of shellfish.

Shortly after the one acre sublease was established in February of 2015 and prior to obtaining a coastal development permit, Starbird Mariculture, Inc. (Starbird) installed and began a commercial oyster cultivation operation using a series of six concrete block-and-chain moorings and 12 floating aluminum barges.<sup>1</sup> Each barge is 24 feet long and eight feet wide, open in the center with a series of lateral bars used to affix ropes that extend into the water below the barge and support stacks of six plastic mesh oyster cultivation trays (**Exhibit 2**). Each tray measures approximately two feet by two feet and is nine inches high, making a stack of six trays approximately five feet tall. Each barge can support up to 21 stacks of trays (a total of 126 individual trays). Within these trays, Starbird cultivates various sizes of Pacific oysters (*Crassostrea gigas*), from mature oysters that are sold to consumers and restaurants to small "seed oysters" that are sold to other shellfish growers to be planted elsewhere for further grow-out.

As carried out by Starbird, cultivation of mature and seed oysters involves the use of a roughly 20 foot long skiff equipped with an outboard motor and hoist, as well as a larger 42 foot long pontoon boat equipped with oyster sorting and processing equipment. The skiff is used for the initial placement and eventual harvest and removal of the stacks of oyster filled trays onto the cultivation barges. Neither vessel would be anchored, moored or stored within the sublease or lease area when not in active use. Although the pontoon boat has been moored within the Cove Mussel Company lease area in past years, such use is not authorized in that area and Starbird is therefore seeking a mooring lease from the California State Lands Commission in a different area of Marconi Cove (outside of the areas leased for shellfish aquaculture). In coordination with the Greater Farallones National Marine Sanctuary, the California State Lands Commission manages a vessel mooring program for Tomales Bay. Because Starbird has yet to obtain a mooring lease for its pontoon boat or identify where this lease would be located and what type of mooring would be installed on it, these activities are not included in the current coastal development permit application and would be considered separately.

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<sup>1</sup> Until recently, Starbird also carried out oyster aquaculture operations without benefit of a coastal development permit on another sublease near the Walker Creek area of Tomales Bay. Those operations have since been discontinued and the associated equipment removed under authorization from the Commission under CDP amendment no. 1-93-73-A1, approved in August 2019.

Once planted, mature oysters are harvested after 18-24 months and seed oysters are harvested after one to three months. Between planting and harvest, both types of oysters are periodically removed from their cultivation trays and processed through the sorting system located on Starbird's 42 foot pontoon boat. As shown in **Exhibit 2**, this system relies on the use of an approximately eight foot long cylindrical plastic drum into which holes of various sizes have been drilled. After the pontoon boat is brought to the sublease area from its offsite mooring and temporarily affixed to one of the cultivation rafts, the oysters are transferred from cultivation trays and placed within this drum to be sorted by size. The sorted oysters are then placed back into cultivation trays and returned to Tomales Bay for further grow-out. On average, each stack of cultivation trays is processed and sorted in this way once per month. Seawater used for sorting and processing is withdrawn directly from Tomales Bay through the use of an intake system placed off of the side of the pontoon boat. Harvest of oysters is carried out through use of the skiff and its hoist. Stacks of cultivation trays are removed from the water and properly sized oysters are packaged into mesh bags for transport to shore and sale or temporary in-water storage at the equipment barge.

In the current coastal development permit application, Starbird is requesting after-the-fact authorization for its 2015 installation and use of moorings and oyster cultivation barges within its one acre sublease and for the ongoing use of this equipment and associated vessels for the commercial cultivation of Pacific oysters. Additionally, Starbird is also proposing to moor onto its sublease an approximately 24 foot long by 15 foot wide equipment barge that would be used to store recently harvested oysters and cultivation trays that are not in use. This barge would only be used for equipment and temporary storage of harvested oysters and would not be used as a work platform for shellfish processing, packing, sorting or other activities.

Installation of the equipment barge would be accomplished by towing it onto the sublease area by boat and affixing it to one of the existing moorings adjacent to the existing aquaculture barges. As shown in **Exhibit 2**, the equipment barge would have solid wooden panels on the landward side to help support the stacks of cultivation trays on it and provide visual screening.

## **B. STANDARD OF REVIEW**

The proposed project is located in the Commission's retained jurisdiction. The County of Marin has a certified local coastal program (LCP), but the site is seaward of the Tomales Bay shoreline within an area over which the state retains a public trust interest. Therefore, the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

## **C. OTHER AGENCY APPROVALS**

### **California Fish and Game Commission**

Starbird Mariculture's operation is carried out within a one acre sublease established by the California Fish and Game Commission in State Water Bottom Lease No. M-430-06. This sublease was established in February 2015. The current term of State Water Bottom Lease No. M-430-06 extends until March 7, 2027. **Special Condition 1** would establish a permit term that is tied to the term of this lease unless the sublease is revoked earlier. If the lease

term is extended, the CDP term could be modified through a permit amendment to reflect the new expiration date.

### **California Department of Fish and Wildlife**

Starbird Mariculture's aquaculture operations are required to be registered annually with the California Department of Fish and Wildlife (CDFW) and to adhere to a variety of protocols related to introduced species and the importation of oyster seed. Starbird has a valid registration for 2019. Commission staff reached out to and solicited input from CDFW staff during the course of this permit review, consistent with the state and federal agency coordination process established for shellfish aquaculture projects in Tomales Bay through a Memorandum of Agreement signed in 2016.

### **Gulf of the Farallones National Marine Sanctuary**

Tomales Bay is within the Greater Farallones National Marine Sanctuary and under management by the Office of National Marine Sanctuaries (ONMS). Commission staff coordinated its review of the proposed project with ONMS staff and solicited early input from them, consistent with the state and federal agency coordination process established for shellfish aquaculture projects in Tomales Bay through a Memorandum of Agreement signed in 2016. In addition, ONMS staff provided information with Commission staff about the presence and location of sensitive marine resources in the project area.

## **D. MARINE BIOLOGICAL RESOURCES**

Section 30230 of the Coastal Act states:

*Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act states:

*The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

The previously completed and proposed installation and operation of oyster aquaculture barges and an equipment storage barge on Starbird Mariculture's one acre sublease has the potential to result in adverse impacts to marine resources through the release of debris, hazardous materials, and non-native species into the marine environment and the impingement or entrainment of protected fish species through a seawater intake system.

### **Marine Debris**

Man-made material released into the marine environment, especially plastics, pose a significant threat to both marine wildlife and habitats. This debris may cause injury and death to marine life by entanglement or ingestion and can negatively affect habitats through smothering, spatial displacement and mechanical disturbance. Because the materials proposed to be used by Starbird Mariculture as part of its aquaculture operations are primarily comprised of plastics (including the approximately 1,500 individual four square foot plastic mesh trays that would be planted with oysters and submerged in the bay and the several hundred additional trays that would be stored on the water on Starbird's proposed equipment barge), these operations increase the risk that large volumes of plastic may work loose, disperse into the environment and become marine debris. Such occurrences have been well documented around similar shellfish aquaculture operations in Tomales Bay, Humboldt Bay, Morro Bay and in Oregon, Washington and British Columbia.

To address the potential ongoing and future release and distribution of marine debris resulting from Starbird Mariculture's oyster cultivation operations, the Commission is requiring in **Special Condition 6** that Starbird Mariculture implement or continue a variety of best practices, including those focused on inspections following storm events; debris reduction trainings for field employees; quarterly cleanup events; gear marking; field storage of tools and construction materials; and comprehensive debris cleaning and removal activities carried out on each bed at the time of its harvest. Although Starbird Mariculture currently carries out a number of these practices voluntarily, memorializing these practices through operational requirements would help further ensure that they continue in the future. These requirements would reduce the long-term accumulation of debris within cultivation beds, prevent debris generation and loss, and promote recovery of materials lost due to storm action or other unavoidable causes.

### **Non-native Species**

Based on assessments by the Greater Farallones National Marine Sanctuary (which includes Tomales Bay) and a December 2011, report of the Tomales Bay Watershed Council titled, *Tomales Bay Watershed Species of Local Interest: Native and Non-native Species of Conservation or Management Concern*, over a dozen invasive marine species are present in Tomales Bay that have been identified as a priority or high-priority concern for management due to the likelihood that they present a major ecological or socio-economic threat. Many of these species are known to be "fouling organisms," species of invertebrates and algae that are known to seek out and colonize artificial hard substrate in the marine environment. Maintenance activities for in-water structures and vessels that involve periodic removal of fouling organisms without proper collection and disposal protocols may result in increased dispersal and propagation opportunities for these species. Such opportunities for dispersion and spread pose a particular risk with some algal species and colonial tunicate species such as didemnum that may break apart into many pieces when disturbed, each of which may be capable of surviving, growing, and reproducing on its own. Four invasive colonial marine tunicate species have been identified within Tomales Bay.

Each of the 12 oyster aquaculture rafts would include multiple stacks of cultivation trays that would extend five to eight feet below the rafts into the water column. These trays and the undersides of the rafts themselves are likely to attract fouling organisms over time and would

need to be periodically removed and cleaned. Some of these cleaning activities may involve the use of a pressure washer, hose, or scraping devices and would be carried out annually or every several years on the hulls and floats of the rafts themselves, with wash water and removed fouling organisms discharged into the bay. Other types of cleaning would likely be carried out on the cultivation trays periodically as well as they are removed from the bay for shellfish sorting and/or harvest. Without such cleaning, the natural accumulation of marine fouling organisms on the outside of the trays may begin to impede the flow rate of water through the trays and thereby restrict the growth of the oysters they contain. This cleaning of both the rafts and cultivation trays may result in the discharge and spread of invasive organisms. To address this potential risk to native marine habitats and species that this cleaning activity would have with regard to the spread and dispersion of invasive marine species, the Commission is requiring in **Special Condition 2** that the cleaning of the aquaculture rafts and cultivation trays be carried out in a manner that prevents discharge of biofouling materials and organisms to Tomales Bay, including requirements to carry out some cleaning activities onshore and the requirement to collect and dispose of all removed biological material and organisms at an upland facility. While some fouling organisms are native species that do not present an invasion risk, the diverse growing forms, colors and range of algal and invertebrate species in the fouling community make it extremely difficult for those without specialized training to successfully identify species and differentiate between natives and non-natives. Accordingly, in similar situations with marine areas like Tomales Bay in which invasive species are present, the precautionary approach that the Commission has adopted is to consider all fouling organisms as a potential risk.

### **Seawater Intakes**

The removal of seawater through intake structures is known to result in the impingement and entrainment of marine life. The type and quantity of marine life that may be adversely affected in this way is related to the size and velocity of the intake structures. Larger, high-velocity structures can cause the impingement and entrainment of larger organisms that can include adult fish, while smaller low-velocity structures can typically only impinge and entrain smaller larval and juvenile organisms. While impingement (capture of fish and marine organisms against an intake screen due to suction) can often result in the injury or mortality of the affected organism, adverse effects of entrainment (capture of fish and marine organisms in the intake stream) vary based on the type of intake system (configuration of pipes, pressure changes, temperatures) and ultimate use of the entrained water.

As part of its proposed operations, Starbird Mariculture (Starbird) would carry out a variety of activities that would require the use of seawater extracted from Tomales Bay. These activities include (1) shellfish cleaning and sorting operations on its pontoon boat; and (2) maintenance cleaning of the cultivation equipment.

Starbird proposes to pump out seawater from Tomales Bay for these activities using gasoline powered intake equipment with an approximate capacity of 50 gallons per minute. The intake of seawater in this way would result in substantial mechanical stress for organisms within the water and would be likely to cause mortality to juvenile fish and a portion of the larval and planktonic organisms in the water extracted from the bay for these uses. Among the juvenile fish known to be present within Tomales Bay's waters are several species recognized with federal protection, including the federally endangered tidewater goby (*Eucyclogobius*

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*newberryi*), federally threatened central California coast steelhead (*Oncorhynchus mykiss*), state and federally endangered Coho salmon (*Oncorhynchus kisutch*), and state threatened longfin smelt (*Spirinchus thaleichthys*).

Both the California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS) have developed guidance and technical specifications for the use of intake structures located within water bodies in which longfin smelt and juvenile salmonids such as steelhead are found. These guidelines are intended to protect these fish species by ensuring that intake screens are small enough to prevent their entrainment and intake velocities are low enough to not overwhelm their swimming abilities. Specifically, intake velocities are not to exceed 0.2 feet per second with a screen size of at least 5 square feet per cubic foot per second if an active system is used and 0.05 feet per second with a screen size of at least 20 square feet per cubic foot per second if a passive system is used.

The Commission has previously found these standards to reduce the potential impingement and entrainment of protected species of juvenile and adult fish and has required their use on a variety of shellfish aquaculture operations that include seawater intake structures (for example, CDP Nos. E-11-029, 9-16-0204, and 9-18-0278). **Special Condition 4** would establish these intake standards for the seawater intake systems that Starbird Mariculture proposes to use for maintenance or shellfish cleaning, washing, or sorting operations.

### **Eelgrass**

The results of both historic eelgrass mapping efforts carried out in Tomales Bay by the California Department of Fish and Wildlife and more recent efforts funded by the Greater Farallones National Marine Sanctuary (completed in 2017) show that eelgrass habitat is not present with the sublease area occupied by Starbird Mariculture's aquaculture equipment and moorings. Eelgrass is not typically present in Tomales Bay at the water depths found within the sublease area. As such, the placement of 12 aquaculture barges and an additional equipment storage barge within the sublease area – along with the six associated concrete block moorings – would not adversely affect eelgrass habitat.

### **Conclusion**

The Executive Director finds that the project, as conditioned, will be carried out in a manner in which marine resources are maintained, species of special biological significance are given special protection, the biological productivity of coastal waters is sustained, and healthy populations of all species of marine organisms will be maintained. In addition, the Executive Director finds the project, as conditioned, will maintain the biological productivity of coastal waters and estuarine habitats appropriate to maintain optimum populations of marine organisms. The Executive Director therefore concludes that the proposed project, as conditioned, is consistent with Sections 30230 and 30231 of the Coastal Act.

## **E. FILL OF OPEN COASTAL WATERS**

Section 30233(a) of the Coastal Act states:

*The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of*

*this division where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

- (1) *New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) *Maintaining existing, or restoring previously dredged depths on existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) *In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
- (4) *Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (5) *Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- (6) *Restoration purposes.*
- (7) *Nature study, aquaculture, or similar resource dependent activities.*

Coastal Act Section 30108.2 defines “fill” as “earth or any other substance or material ... placed in a submerged area.” As part of its project, Starbird Mariculture (Starbird) is seeking after-the-fact authorization for the installation of six concrete block-and-chain moorings on the seafloor in the Marconi Cove area of Tomales Bay. Each mooring block has an approximate seafloor footprint of 13 square feet and the combined total of all six moorings would be roughly 80 square feet. These moorings would maintain Starbird’s 12 oyster cultivation barges in place. Installation of these mooring devices into the submerged waters of Tomales Bay constitutes “fill” of estuarine waters, as that term is defined in the Coastal Act.

The Commission may authorize a project that includes filling of estuarine waters if the project meets the three tests of Coastal Act Section 30233. The first test requires that the proposed activity fit within one of seven use categories described in Coastal Act Section 30233(a)(1)-(7). The second test requires that no feasible less environmentally damaging alternative exists. The third and final test mandates that feasible mitigation measures are provided to minimize any of the project’s adverse environmental effects.

#### **Allowable use**

The purpose of the anchors is to support barges that would be used to cultivate oysters, an aquaculture activity. Aquaculture is described as an allowed use in Coastal Act Section 30233(a)(7). Therefore, the Commission finds that the project meets the allowable use test for fill of estuarine waters under Coastal Act Section 30233(a).

### **Alternatives**

The Commission must further find that there is no feasible less environmentally damaging alternative to placing fill in estuarine waters. Coastal Act Section 30108 defines “feasible” as “...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors.”

In addition to the proposed placement of six concrete mooring blocks and associated tackle on approximately 80 square feet of submerged tidelands, Commission staff also considered alternatives that included installation of helical screw anchor type moorings and different types of weighted mooring blocks. However, the installation of helical anchors was rejected because it is prohibited by the Tomales Bay Mooring Program developed by the California State Lands Commission and Greater Farallones National Marine Sanctuary. Although these types of moorings can have a significantly smaller overall seafloor footprint compared to traditional weighted blocks, their use in Tomales Bay has yet to be sufficiently evaluated in order to determine effectiveness and capacity limitations. Accordingly, use of such moorings may increase the likelihood of failure and loss, thus presenting a potential threat to coastal resources.

While the Tomales Bay Mooring Program does not apply to moorings for aquaculture equipment on state aquaculture leases, it nevertheless provides relevant criteria for mooring materials and inspection/maintenance activities that were developed after careful review and consideration of the resources and conditions in Tomales Bay. These criteria, specifically described in the Tomales Bay Mooring Program’s sections on “Mooring Tackle Requirements” and “Inspection and Maintenance Requirements” (included in **Exhibit 3**) establish appropriate best practices and guidelines for moorings such as those proposed for use by Starbird Mariculture. The concrete filled 55-gallon drums proposed to be authorized for use as mooring blocks by Starbird are specifically identified as acceptable mooring anchors in the Tomales Bay Mooring Program. These types of moorings have a proven history of successful use in Tomales Bay when properly installed, maintained, and coupled with appropriate tackle. Such moorings are the dominant type used throughout the bay for anchoring a wide range of vessels, including many that are much larger than the aquaculture barges proposed to be used by Starbird. Therefore, the Commission agrees with the applicant that less environmentally damaging feasible alternatives to the proposed concrete mooring blocks are not currently available.

For the reasons described above, the Commission finds that the proposed project is the least environmentally damaging feasible alternative and therefore meets the second test of Coastal Act Section 30233(a).

### **Mitigation Measures**

The final requirement of Coastal Act Section 30233(a) is that filling of coastal waters may be permitted if feasible mitigation measures have been provided to minimize any adverse environmental impacts. As described in greater detail in the marine resources section of this report, the mitigation measures associated with this project consist of: marine debris prevention and response measures; non-native species management measures; intake standards; and hazardous materials spill prevention and response measures. In addition, **Special Condition 7** would establish design and inspection/maintenance requirements for the

barge mooring systems proposed to be used by Starbird. These requirements are detailed in **Exhibit 3** and come directly from the Tomales Bay Mooring Program developed by the California State Lands Commission and Greater Farallones National Marine Sanctuary. Specifically, the Tomales Bay Mooring Program's sections on "Mooring Tackle Requirements" and "Inspection and Maintenance Requirements" establish standards for the type of mooring blocks and tackle most appropriate for use in Tomales Bay as well as the type and frequency of maintenance inspections that should be carried out. Because the Tomales Bay Mooring Program does not apply to aquaculture activities and areas, **Special Condition 7** would carry forward these basic standards and apply them to Starbird Mariculture's proposed operations. In combination with **Special Conditions 2-6**, these feasible mitigation measures will minimize the project's adverse environmental impacts. Thus, with the imposition of the conditions of this permit, the Commission finds that the third and final test of Coastal Act Section 30233(a) has been met.

### **Conclusion**

Because the three tests have been met, the Commission finds the proposed project consistent with Section 30233 of the Coastal Act.

### **F. VIOLATION**

As noted above in the Project Description and Background section, although the Starbird Mariculture oyster aquaculture operation has been in place and active since 2015, no coastal development permit had been sought or received to authorize it under the California Coastal Act. As such, violations of the Coastal Act exist on the subject property, including, but not limited to, installation and use of unauthorized shellfish aquaculture equipment such as cultivation rafts, trays, and moorings. In response to notification by Commission permitting and enforcement staff about these Coastal Act violations, Starbird Mariculture submitted this CDP application. Approval of this application pursuant to the staff recommendation, issuance of the permit, and the applicant's subsequent compliance with all terms and conditions of the permit results in resolution of the future impacts from the violation related to the unpermitted installation and use of oyster cultivation equipment going forward.

Although development has taken place prior to the submission of this Coastal Development Permit application, consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Commission review and action on this permit does not constitute a waiver of any legal action with regard to the alleged violation related to the installation of unauthorized cultivation equipment - or any other violations at the site, nor does it constitute an implied statement of the Commission's position regarding the legality of development, other than the development addressed herein, undertaken on the subject site without a coastal permit. In fact, approval of this permit is possible only because of the conditions included herein and failure to comply with these conditions would also constitute a violation of this permit and of the Coastal Act. Accordingly, the applicant remains subject to enforcement action just as it was prior to this permit approval for engaging in unpermitted development, unless and until the conditions of approval included in this permit are satisfied.

Failure to comply with the terms and conditions of this permit may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act. Only as conditioned is the proposed development consistent with the Coastal Act.

## **G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

Section 13096 of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Executive Director incorporates his findings on conformity with the Chapter 3 policies of the Coastal Act at this point as if set forth in full. As discussed above, the development has been conditioned to be found consistent with the policies of the Coastal Act. Mitigation measures, which will minimize all adverse environmental impacts, so that no significant adverse environmental effects are anticipated to be caused by this project, have been required as permit special conditions. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Executive Director finds that the development, as conditioned to mitigate the identified impacts, is consistent with the requirements of the Coastal Act to conform to CEQA.

## **SPECIAL CONDITIONS**

This permit is granted subject to the following special conditions:

- 1. Permit Term Limit.** This coastal development permit shall expire on March 7, 2027 or upon the earlier revocation of Starbird Mariculture's sublease of State Water Bottom Lease No. M-430-06, whichever occurs first. If the term of State Water Bottom Lease No. M-430-06 – also set to expire on March 7, 2027 - is amended or a new lease is issued by the California Fish and Game Commission, Starbird Mariculture may submit an application for a permit amendment requesting an extension of the permit term. Starbird Mariculture shall, no less than 60 days prior to permit expiration or the cessation of its operations on its sublease, submit a complete application to amend this permit to remove all cultivation equipment and accumulations of oyster shell and return the lease area to a natural condition.
- 2. Maintenance Cleaning.** All maintenance cleaning operations of the raft hulls, raft floats and cultivation equipment used on Starbird Mariculture's sublease shall be carried out onshore. All biofouling organisms and biological materials removed during these cleaning operations shall be collected and disposed of at an appropriate upland facility. No discharge of untreated wash water or biofouling materials into Tomales Bay shall occur during maintenance cleaning or shellfish sorting operations.
- 3. Annual Report.** By December 31 of each year, Starbird Mariculture shall submit to the Executive Director an annual report with information regarding the results of quarterly cleanup events carried out as described in **Special Condition 6**, including the date of training, training materials, meeting minutes, and list of attendees from the Marine Debris Reduction Training described in **Special Condition 6(C)**. In addition, the annual report

shall include information on the number of cultivation trays lost, replaced, and recovered throughout the course of the year as well as any design, management, or operational changes implemented to address issues that have arisen. The annual report shall also include: (i) mooring inspection reports required in **Special Condition 7**; (ii) a description of any significant changes to the type, quantity and configuration of cultivation equipment that are being considered; and (iii) a description of any resource or operational challenges that are emerging.

4. **Intake System Design.** All intake systems used by Starbird Mariculture to supply water from Tomales Bay for maintenance or shellfish cleaning, sorting or washing shall be designed with intake screens designed consistent with California Department of Fish and Wildlife and National Marine Fisheries Service guidelines for protection of juvenile salmonids by having: (a) mesh openings of no more than 3/32 inches; and (b) a maximum intake water velocity of 0.33 feet per second.
  
5. **Hazardous Material Spill Prevention and Response Plan.** WITHIN 60 DAYS OF PERMIT ISSUANCE, Starbird Mariculture shall submit for Executive Director review and written approval, a project specific Spill Prevention and Response Plan (SPRP) for work vessels, barges, and gasoline powered machinery that will be used during project construction and operational activities. Starbird Mariculture and its personnel shall be trained in, and adhere to, the emergency procedures and spill prevention and response measures specified in the SPRP during all project installation and operations. The SPRP shall provide for emergency response and spill control procedures to be taken to stop or control the source of the spill and to contain and clean-up the spill. The SPRP shall include, at a minimum: (a) identification of potential spill sources and quantity estimates of a project specific reasonable worst case spill; (b) identification of prevention and response equipment and measures/procedures that will be taken to prevent potential spills and to protect marine and shoreline resources in the event of a spill; (c) provisions to assure that spill prevention and response equipment will be kept onboard project vessels and barges at all times; (d) a prohibition on vessel fueling/refueling activities outside of designated fueling stations and limitation on equipment refueling to no more than five gallons, carried out with spill prevention and response protocols in place; and (e) emergency response and notification procedures, including a list of contacts to call in the event of a spill.
  
6. **Marine Debris Reduction and Management.** Starbird Mariculture shall carry out operations consistent with the following marine debris reduction and management practices:
  - A. **Storm Damage and Debris.** As soon as safely and reasonably possible following storm or severe wind or weather events, Starbird Mariculture shall patrol all active aquaculture areas for escaped or damaged aquaculture equipment. All equipment that cannot be repaired and placed back into service shall be properly recycled or disposed of at an appropriate onshore facility. In addition, Starbird Mariculture shall retrieve or repair any escaped or damaged aquaculture equipment that it encounters while conducting routine daily and/or monthly maintenance activities associated with shellfish culture (e.g. bed inspections, shellfish harvest and planting). If the escaped gear cannot be repaired and replaced on the shellfish bed, it shall be properly recycled or disposed of on land.

**B. Gear Marking.** Starbird Mariculture shall mark shellfish cultivation equipment (trays and bags) in an easily identifiable manner with identification information including its company name. Markings shall be securely attached and robust enough to remain attached and legible after an extended period in the marine environment (e.g. heat transfer, hot stamp, etching, etc.). Existing cultivation bags and floats currently in use shall be marked or replaced with marked versions when replanted, and all unmarked gear shall be replaced in this way within 12 months of approval of this permit amendment. In the event that its shellfish culture gear or equipment becomes displaced or dislodged from culture beds, Starbird Mariculture shall retrieve the material from the shoreline, open water, eelgrass beds, mudflat, or submerged bottom in a manner that will avoid or minimize any damage to marine resources such as eelgrass. Once located, such material shall be removed as soon as feasible and properly disposed of, recycled, or returned to use.

**C. Marine Debris Reduction Training.** WITHIN 30 DAYS OF ISSUANCE OF THIS PERMIT, Starbird Mariculture shall implement an employee training regarding marine debris issues, how to identify culture gear or associated materials (marking stakes, support posts, longlines, etc.) that is loose or at risk of becoming loose, proper gear repair methods and how to completely remove gear from out-of-production areas. Particular focus shall be placed on management and maintenance practices to reduce the loss of any gear type consistently found during bay cleanup and inspection activities. This training shall be repeated on an annual basis throughout the term of the permit. During trainings, Starbird Mariculture's employees shall be encouraged to consider and implement field and management practices that reduce the amount of small plastic gear (such as zip-ties, tags and fasteners) and non-biodegradable material (such as nylon or polypropylene rope) used in its operations.

**D. Cleanup Events.** Starbird Mariculture shall carry-out quarterly Tomales Bay cleanup events in coordination with other interested parties or organizations, which shall include walking different portions of the bay and shorelines to pick up escaped shellfish gear and other trash (regardless of whether it is generated by the project). The volume and type of shellfish gear collected and the cleanup location (marked on a map) and duration of cleanup activity shall be recorded and documented in the annual report submitted to the Executive Director of the Commission.

**E. Ongoing Operations.** Starbird Mariculture shall not leave or temporarily store tools, loose gear, or construction materials on its subleased tidelands or cultivation barges. All aquaculture gear installed in active culture areas shall be kept neat and secure and maintained in functional condition. Starbird Mariculture shall carry out regular bed inspections and maintenance activities to help ensure that broken, collapsed, fallen, or buried gear is fixed or removed in a timely manner.

**F. Excessive Gear Loss or Maintenance Failures.** If the Executive Director determines that Starbird Mariculture is responsible for consistently extensive loss of aquaculture equipment (including cultivation trays) into the marine environment or is consistently failing to maintain its equipment in an intact and serviceable condition, Starbird Mariculture shall, within 60 days of the Executive Director's written notification, submit a

permit amendment to modify its cultivation equipment and/or operational practices to address the issue.

7. **Barge Moorings.** Moorings and associated equipment for the aquaculture barges and equipment storage barge shall be installed and maintained consistent with the “Mooring Tackle Requirements” and “Inspection and Maintenance Requirements” of the Tomales Bay Mooring Program developed by the California State Lands Commission and Greater Farallones National Marine Sanctuary (**Exhibit 3**). These sections of the Tomales Bay Mooring Program establish the appropriate mooring material, design, capacity and tackle to be used in Tomales Bay as well as inspection and maintenance methods, frequency, and reporting. Annual mooring inspection reports shall be provided to the Executive Director for review and approval as part of the annual report described in **Special Condition 3**.
  
8. **Other Agency Review and Approval.** PRIOR TO COMMENCEMENT OF PROPOSED EQUIPMENT STORAGE BARGE INSTALLATION ACTIVITIES, Starbird Mariculture shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the approved project have been granted, including those from the Regional Water Quality Control Board, California Fish and Game Commission and U.S. Army Corps of Engineers. Any changes to the approved project required by these agencies shall be reported to the Executive Director. No changes to the approved project shall occur without an amendment to this permit unless the Executive Director determines that no amendment is legally necessary.

**ACKNOWLEDGEMENT OF PERMIT RECEIPT/ACCEPTANCE OF CONTENTS:**

I/We acknowledge that I/we have received a copy of this permit and have accepted its contents including all conditions.

\_\_\_\_\_  
**Permittee's Signature**

\_\_\_\_\_  
**Date of Signing**