

## DEPARTMENT OF FISH AND GAME

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August 5, 1991

Mr. John Sansing, Superintendent  
Point Reyes National Seashore  
Point Reyes, CA 94956

Dear John:

Thank you for the opportunity to comment on the impacts of Johnson Oyster Company (JOC) operations in relation to the Department of Health Services (DOHS) conditional approval to use a portion of Drakes Estero as a shellfish growing area. Your letter of June 27 plus enclosures were forwarded to our Marine Resources Division (MRD) biologist in Bodega Bay with instructions to begin an immediate investigation. Pertinent correspondence from Ms. Sarah Allen and Mr. Dave Shuford of the Point Reyes Bird Observatory had been forwarded to our biologist by Mr. K. Hansen of the DOHS.

The DOHS Management Plan for Commercial Shellfishing in Drakes Estero was drafted to ensure conformity with the United States Food and Drug National Shellfish Sanitation Program (NSSP). While not previously found in the expanded formal document, many of the elements of the Drakes Estero Management Plan were addressed in a cover letter which accompanied the annual renewal of the Shellfish Growing Area Certificate and in a Memorandum of Understanding between DOHS and JOC used prior to this. The objectives of this plan are to provide a mechanism for the declaration of harvest closures when the growing area does not meet approved area standards (NSSP Manual of Operations, Part 1, Definitions section and Section C.4.)

Comment 2 of your March 19 letter, John, suggests closing the lower half of the Estero to oyster operations during the March 15 to June 15 harbor seal pupping season. An attempt to take such action by DOHS, however, would be outside the bounds of their authority under the Health and Safety Code of California, because sampling to date has indicated an absence of water quality problems associated with marine mammal exposure in Drakes Estero or in Home Bay.

Both your March 19 and June 27 letters state that the mud flat areas in Drakes Estero should not be used for mariculture operations because these areas are used as harbor seal haul out areas and further state that use of these areas by the allottee would seem to be a violation of the Marine Mammal Protection Act of 1972 (MMPA), PL 97-58, 16 U.S.C. 1371. Although the Marine Mammal Protection Act is enforced by the National Marine Fisheries Service and a determination would have to be made by them as to whether a specific violation of the MMPA has occurred, the Department of Fish and Game (Department) is very concerned about any activities by the allottee which may adversely impact the harbor seal population in Drakes Estero.

Historically, we have responded to concerns that JOC operations were affecting resource values in the Estero. In early 1990, prompted by a telephone call from a concerned citizen, the MRD Bodega Bay biologist met with JOC to determine what impact, if any, the JOC operation was having on the harbor seal population. Department annual marine mammal census data had indicated a trend of increasing abundance in the area. JOC was quite aware of the increased harbor seal population and was willing to work with the Department to avoid mammal disturbance. It was agreed at the time that JOC would avoid main channel use to transport oysters and personnel in Drakes Estero near the major haul out sites adjacent to parcels one and two of the allotment.

We note that the mudflat areas identified as JOC oyster racks on the map enclosed with your March 19 letter are in fact oyster stakes. The distinction among types of oyster cultivation methods is important and relevant to this particular issue. In their allotment from the Fish and Game Commission, the JOC is authorized to cultivate oysters by bottom, rack, and stake culture. All three methods have been used since 1957 by JOC and continue to be integral to oyster production on the allotment. Oysters grown on stakes attain harvestable size in 2 to 2 1/2 years. When the bed is harvested, new stakes with cultch (seed oysters on scallop shell) are replanted at that time. No maintenance is required and the beds are left alone until the oysters reach harvestable size. On-site Department inspection of these mudflat areas revealed that stake beds 15 and 20 (indicated on enclosed map) are at least 300 yards or more from the identified haul out areas. Bed 17, just off the tip of the point and also a stake bed, is somewhat closer than 300 yards. Bed 16, was a stake bed at one time, but has not been planted recently due to its proximity to the haul out area. The aforementioned beds are areas of low human activity and can be accessed by boat without utilizing the main channel in front of the major haul out sites.

On-site Department investigations during several low tides in April and May of this year revealed that the vast majority of harbor seals were hauled out on mudflat and sandbar areas outside the allotment and closer to the mouth of Drakes Estero. While this distribution may not occur at all times of the year, JOC also does not continually work beds adjacent to haul out areas in other portions of the Estero.

To our knowledge, no expansion into "proposed" oyster beds, as stated by Ms. Allen, is planned by JOC in the future. Production by JOC has declined by 24 % from the 1987 level. Production on existing beds fluctuates depending on seed supply and the extent of public health closures in the Estero. JOC claims that the entire Estero allotment is needed to ensure a continuous supply despite closures. Paralytic Shellfish Poisoning closures in the main Estero can stop all harvest from a given area, but elevated levels are detected less frequently in the beds back in Creamery, Schooner,

and Home bays. The planting and harvest of existing beds in various locations is manipulated to provide a continuous supply of oysters.

The fact that JOC has demonstrated a willingness to work with the Department to minimize disturbances and that the mammal population has been increasing in recent years would seem to indicate that current use of the allotment is not deleterious to marine mammals and that operations can be modified, if warranted.

In your March 19 letter, and in Mr. Shuford's March 20 letter, it is suggested that some of the JOC beds do not fall within the allotment boundaries, although such errant beds were not identified. JOC contends that they are operating within their allotment. The apparent discrepancy may be the result of use of a USGS map dated 1953 to position beds in relation to sandbars and mudflats. On-site Department investigations revealed some differences in channel locations, thus altering the shape of mudflats compared to the 1953 map. Bed positions relative to each other were also different than the map, but there appeared to be no beds outside of the allotment. Recent imagery, sufficient to allow a more accurate determination of this issue, is being sought.

Your March 19 letter suggest that leased bed boundaries be changed to exclude the shoreline by 50 to 100 yards. You further note that this is especially important in the Bull Point area due to the ease of access to oyster baskets by Seashore visitors. The JOC allotment in Drakes Estero is to the high water mark along the shoreline. The portion of the intertidal zone which would be excluded is an extremely productive area and constitutes a great percentage of the usable portion of the JOC allotment. In addition, the Bull Point area's firm bottom and lack of strong currents is unique in the Estero. JOC has identified this area as essential to their production scheme and uses it extensively to grow and harden seed oysters. Many bags which appear empty from the bluffs are actually filled with small seed. Title 14 C.C.R. 15002 states that any person who takes aquaculture products without lawful entitlement is subject to prosecution for theft. We might suggest that an informational sign in the Bull Point area would satisfy the curiosity of Seashore visitors.

The issue of plastic debris also is mentioned in your March 19 letter. The Department has worked with JOC since 1989 to halt the spread of plastic debris associated with aquaculture operations. The two items of greatest concern are plastic lids and poly-pipe sections used to separate cultch on wire hangers used in rack culture. In May of 1989, JOC replaced plastic lids with scallop shell and instituted once-a-month beach patrols to clean up debris. Beginning in 1990, all strings of oysters harvested from rack culture are broken down at the processing plant and plastic pipe sections removed and bagged for reuse. Twice-monthly beach patrols were begun. JOC has been testing replacement materials for the poly-pipe sections since 1989, although two years of salt water

immersion and the host of boring fauna present make it difficult to find a non-toxic replacement for plastic. They feel that a Guatemalan species of bamboo is the most promising material.

While progress on the issue of plastic debris has been made, complete resolution may be a lengthy process. Over 30 years of rack culture has led to an unknown amount of lost plastic in the Estero. Winter storms can bring up submerged plastic, and sand movement from wind and wave action also can expose buried debris. Department examination of JOC-collected plastic debris at various times over the past two years has revealed that less than 50 % of the collected items are JOC-related. Some of the debris, such as rope, plastic jugs, is typical of that littering beaches worldwide, whereas some of the debris is litter from Seashore visitors. JOC is removing all litter found on their patrols. However, the JOC has only one small motorized vessel for use on the Estero and access to some areas can be restricted by tides.

If you wish to discuss this further with Department staff, John, please feel free to contact Mr. Tom Moore at (707)823-9236 or Mr. Carl Wilcox at (707)944-5525.

Sincerely,

Brian Hunter  
Regional Manager

cc: James Lecky, NMFS-Santa Rosa