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CD-0001-15

NATIONAL PARK SERVICE

- Staff Responses to Comments
- Correspondence

Click here to go to
original staff report

CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE (415) 904- 5200
FAX (415) 904- 5400
TDD (415) 597-5885

Th11a

May 11, 2015

To: Coastal Commission and Interested Parties

From: Alison Dettmer, Deputy Director, Energy, Ocean Resources and Federal Consistency Division
Mark Delaplaine, Manager, Energy, Ocean Resources and Federal Consistency Division
Cassidy Teufel, Senior Environmental Scientist

Subject: **Addendum to CD-0001-15 – National Park Service, Point Reyes National Seashore**

This addendum provides correspondence on the above-referenced staff report and staff's response to the comments included in this correspondence. This correspondence does not change staff's recommendation that the Commission **concur** with Consistency Determination No. CD-0001-15.

Correspondence Received

- Letter from Ms. Phyllis Faber to Commission Chairman Steve Kinsey, May 4, 2015
- Letter from Dr. Corey Goodman to Commission Chairman Steve Kinsey, May 3, 2015
- Letter from Mr. William Bagley, to Commission Chairman Steve Kinsey, May 7, 2015
- Letter from Save Our Seashore to Coastal Commission, May 8, 2015
- Letter from Environmental Action Committee of West Marin to Coastal Commission, May 11, 2015
- Letter from National Parks Conservation Association to Coastal Commission, May 11, 2015

Staff Response to Comments

Letter from Ms. Phyllis Faber
In an attached letter dated May 4, 2015, Ms. Phyllis Faber urges the Commission to object to the National Park Service's (NPS) consistency determination. In support of this request, Ms. Faber

states that the Commission should "consider Chapter 3 provisions of the 1976 California Coastal Act that support both agriculture and mariculture," and that "[d]isrupting and destroying the eel grass beds should not be allowed." A response to each of these statements is provided below.

Additionally, Ms. Faber provides several statements in support of continued aquaculture operations in Drakes Estero. Regarding these statements, Commission staff would like to clarify that the federal authorization for aquaculture in Drakes Estero has terminated and the former aquaculture operator withdrew its legal challenge to this termination and ceased operations in 2014. NPS's consistency determination is solely focused on the clean-up and removal of structures and debris that were abandoned in Drakes Estero when this operation ceased and does not include cessation of the aquaculture operation. Thus, the decision before the Commission is to concur (or conditionally concur) with NPS's consistency determination, which would allow removal of the abandoned oyster racks, or object to the consistency determination, which would effectively prohibit the National Park Service from removing the abandoned oyster racks. The Commission has no authority to require NPS to allow resumption of commercial aquaculture in Drake's Estero.

In addition, Drakes Estero is now a federally designated wilderness area and a commercial aquaculture operation is not compatible with this designation. As noted by the U.S. Secretary of the Interior in his 2012 memorandum documenting his decision to allow federal authorization for commercial aquaculture operations in Drakes Estero to expire, commercial aquaculture operations were "the only use of the estero prohibited by the Wilderness Act" and Congress "clearly expressed its intention that the estero become designated wilderness by operation of law when 'all uses thereon prohibited by the Wilderness Act have ceased.'" Accordingly, at the same time that the Secretary decided to allow federal authorization to expire, he also directed the NPS to "effectuate the conversion of Drakes Estero from potential to designated wilderness" and publish in the Federal Register the notice announcing this conversion. This Federal Register notice was published on December 4, 2012, stating that "pursuant to Section 3 of Public Law 94-567, publication of this notice hereby effects the change in status of 1,363 acres of Drakes Estero, more or less, from potential wilderness to designated wilderness." The area converted to designated wilderness included all of the offshore area formerly used for aquaculture operations and the entire offshore project area discussed in the NPS consistency determination. It would therefore take an act of Congress to allow commercial aquaculture to resume in Drakes Estero.

As such, statements in Ms. Faber's letter regarding aquaculture operations in Drakes Estero are not relevant to this consistency determination.

<u>Adverse Impacts to Eelgrass Should Not Be Allowed</u>

Ms. Faber states that the proposed removal of aquaculture structures "will be hugely disruptive to the Estero and particularly to the large eelgrass beds that have formed adjacent to the racks." Both Commission staff and NPS acknowledge that temporary adverse impacts to eelgrass in Drakes Estero will occur due to the restoration efforts.

Specifically, NPS estimates that the project would result in the removal of up to 0.59 total acres of eelgrass across the 96 proposed work sites. These impacts are discussed and evaluated on pages 13-16 of the staff report. This discussion includes the conclusion that the proposed

removal of abandoned aquaculture structures and associated materials and debris from Drakes Estero is expected to allow existing eelgrass beds to expand by approximately 2.8 acres, providing for an overall benefit-to-impact ratio of roughly 4.5 to 1 – well in excess of the standard eelgrass mitigation ratio of 1.2 to 1 that has been typically required by the Commission. As discussed in the staff report and recommended condition, to ensure that at least this 1.2 to 1 mitigation ratio is achieved with this project, NPS would be required to submit an Eelgrass Monitoring and Mitigation Plan for review and approval prior to the initiation of offshore project activities. Once approved, NPS would be required to implement and adhere to this plan. NPS has agreed to this condition. With development, approval, and implementation of the project Eelgrass Monitoring and Mitigation Plan, adverse impacts to eelgrass will be adequately mitigated.

Although NPS developed its proposed project in a way that avoided and minimized potential adverse impacts to eelgrass as much as possible, it will also continually refine its operations during the project to further reduce eelgrass impacts and protect eelgrass. Despite these measures, the proximity of abandoned aquaculture debris and material to eelgrass beds and the partial burial of some of this material means that it cannot be removed without some inadvertent disturbance and temporary loss of eelgrass. Nevertheless, a substantially greater amount of eelgrass habitat will be made available for eelgrass colonization through the removal of the material that currently occupies or shades it than would be lost through the conduct of those removal activities. Although no restoration project involving eelgrass planting has occurred in Drakes Estero, the robust population of dense eelgrass present throughout the estero suggests that natural recruitment and colonization is likely to occur and planting effort, if determined to be necessary to achieve required mitigation ratios, would likely be successful.

Additionally, the removal of abandoned aquaculture material that is currently marine debris or in the process of breaking down and becoming marine debris will provide an immediate and long-term benefit to marine resources in Drakes Estero and surrounding waters. This artificial material in the estero precludes the expansion of eelgrass, supports invasive marine fouling organisms, poses an ongoing ingestion and entanglement hazard to marine wildlife, and displaces natural soft substrate benthic habitat. The marine biological resources of Drakes Estero will therefore be significantly enhanced through its removal.

<u>Agriculture and Mariculture Policies of Chapter 3 of the Coastal Act</u>
Although Ms. Faber did not specify which policies she was referring to, we assume that her reference to the "Chapter 3 provisions of the 1976 California Coastal Act that support both agriculture and mariculture" was directed at Coastal Act Sections 30222.5, 30241, and 30242. Those latter Coastal Act Sections (30241 and 30242) are not applicable to this project. Section 30241 is primarily aimed at minimizing conflicts between the urban/rural boundary, which is not at issue for this restoration project in a designated wilderness area. Section 30242 prohibits the conversion of land suitable for agricultural uses to nonagricultural uses. Here, there are no land uses being modified, and the proposed project itself would not preclude the future use of this area for aquaculture, if federal law were changed to allow such a use in this area.

Regarding the Coastal Act section specifically related to aquaculture – Section 30222.5, this policy is also not relevant to the NPS' consistency determination. For reference, Coastal Act Section 30222.5 states:

> *Oceanfront land that is suitable for coastal dependent aquaculture shall be protected for that use, and proposals for aquaculture facilities located on those sites shall be given priority, except over other coastal dependent developments or uses.*

The proposed project includes only minor and temporary use of land along the shoreline of the estero – primarily though the approximately five months of debris loading and transport proposed to occur onshore – and under federal law this area may no longer be used for coastal dependent aquaculture. This project does not in itself preclude any area of oceanfront land from being used for aquaculture in the future, should federal law be changed to allow such uses.

Letter from Dr. Corey Goodman
In his attached letter dated May 3, 2015, Dr. Corey Goodman requests that the Commission object to NPS's consistency determination. This request is based on three points. Commission staff provides the following summary and response to each of these three points:

<u>The project is not consistent with Coastal Act Section 30233</u>
Dr. Goodman asserts that the subject of Consistency Determination No. CD-0001-15, the removal of abandoned aquaculture structures, materials, and debris from Drakes Estero, is not consistent with Coastal Act Section 30233 because it is not a restoration project. However, the proposed removal of this abandoned material is clearly for "restoration purposes" as called for in Coastal Act Section 30233(a)(6) because it would provide for the enhancement, expansion, and restoration of sensitive marine biological resources in Drakes Estero. As described in the staff report and recommendation, the proposed project would create approximately 2.8 acres of eelgrass habitat, remove an ongoing threat to marine wildlife posed by abandoned marine debris, remove abandoned artificial material from areas of natural soft-substrate, and potentially contribute to the eradication of invasive marine fouling organisms within Drakes Estero. Further, the project would remove all manmade materials and artificial structures from the estero and help restore it to the original condition that existed before these artificial structures were installed. Removal of artificial structures and debris that poses a threat to species and ecosystems or displaces natural habitats is a common form of environmental restoration and the proposed project activities that facilitate this removal work are therefore appropriately considered to be for "restoration purposes."

In his letter, Dr. Goodman also contends that the abandoned aquaculture structures in Drakes Estero have "historic significance" and cites a 2011 NPS document as support. However, as noted in the NPS's November 2012 Final Environmental Impact Statement for the Drakes Bay Oyster Company Special Use Permit, a formal Determination of Eligibility for the National Register of Historic Places prepared for the onshore and offshore aquaculture facilities in Drakes Estero found that these facilities were ineligible for listing due to a lack of historic integrity. The State Historic Preservation Officer concurred with this finding of ineligibility.

Dr. Goodman further contends that the commercial cultivation of oysters in Drakes Estero was considered by the National Academy of Sciences (NAS) as "contributions towards a historic baseline ecosystem in Drakes Estero." However, in its 2009 report the NAS provided no valid scientific justification for this statement[1] and several subsequent historical and archeological investigations[2] demonstrated that no evidence exists to support the claim that oysters constituted a significant component of the prehistoric natural environment of Drakes Estero. Further, as discussed previously, the proposed project does not consider the commercial cultivation of shellfish and is instead focused on the collection and removal of the structures, material, and debris that were abandoned in Drakes Estero when the commercial aquaculture operator ceased operations on December 31, 2014. There is no federal authorization for the resumption of commercial aquaculture operations in Drakes Estero and such use would be out of conformance with the wilderness designation of the estero. If the Commission objected to NPS' consistency determination, the abandoned structures and debris would remain in the estero, but there would be no resumption of oyster cultivation.

<u>The project is not consistent with Coastal Act Sections 30001.5(a) and 30242</u>
Dr. Goodman asserts that the proposed project would be inconsistent with Coastal Act Sections 30001.5(a) and 30242. As discussed above in the response to the letter from Ms. Faber on this issue, Section 30242 does not apply to the proposed project.

Regarding Coastal Act Section 30001.5(a), this section states:

> *The Legislature further finds and declares that the basic goals of the state for the coastal zone are to:*
> *(a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.*

In his letter, Dr. Goodman appears to be suggesting that the abandoned plastic, wood, and metal aquaculture debris and structures within Drakes Estero should be protected as "artificial resources" of the coastal zone. This section is clearly not intended to prevent the conduct of ecosystem restoration activities or the removal and disposal of abandoned and derelict equipment, structures, and materials in the marine environment. Moreover, this section is not among the enforceable policies of the Coastal Act – those included in Chapter 3.

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[1] The sole citation included by the NAS in support of this statement, a 2003 report by Stewart and Praetzellis, actually does not support a conclusion that oysters were once abundant in Drakes Estero or that they were overharvested and subsequently extirpated. In fact, there is absolutely no mention or discussion of native oysters in the 2003 report by Stewart and Praetzellis.

[2] Babalis, T. 2009. Critical Review: A Historical Perspective on the National Research Council's Report "Shellfish Mariculture in Drakes Estero." Unpublished report prepared for Point Reyes National Seashore. Prepared by the National Park Service, Pacific West Region, Cultural Resources Program. 27 pp. and Rudo, M. 2009. Little Archeological Evidence of the Olympia Oyster (Ostrea lurida) at Drakes Estero, Point Reyes National Seashore, California. Unpublished report prepared for Point Reyes National Seashore. Prepared by the National Park Service, Pacific West Region, Cultural Resources Program. 8 pp.

An EIR or EIS should be required for this project

For background, an EIR is an environmental review document described in the California Environmental Quality Act (CEQA) and an EIS is an environmental review document described in the National Environmental Policy Act (NEPA).

Dr. Goodman references a Marin County superior court order finding that the Commission was required to prepare an EIR before it could order Drakes Bay Oyster Company to remove oyster racks from Drake's Estero. This order did not consider and is not relevant to the Commission's exercise of its authority under the Coastal Zone Management Act. The Coastal Zone Management Act provides the Commission with its federal consistency review authority and enables it to consider the proposed consistency determination submitted by NPS. However, Part 930.37 of the federal consistency regulations (15 CFR 930.37) specifically prohibits the Commission from requiring that a federal agency develop and submit an EIS (or any other NEPA document) as part of its review process: "State agencies shall not require Federal agencies to submit NEPA documents…"

Letter from Mr. William Bagley

In his attached letter from May 7, 2015, Mr. William Bagley asserts that shellfish cultivation is fishing, and that the reservation of the right to fish included in the State of California's conveyance of the tidelands and submerged lands of Drakes Estero to the Point Reyes National Seashore therefore applies to shellfish cultivation. The Commission staff disagrees. The relevant state and federal resource agencies also disagree with this assertion, as demonstrated by a letter dated May 15, 2007, from the Director of the California Department of Fish and Game to the Superintendent of Point Reyes National Seashore (included as Exhibit 1 to this addendum) which states that:

> *Although the right to fish extends to both commercial and sport fishing, it does not extend to aquaculture operations. Regardless of whether its purpose is commercial or recreational, fishing involves the take of public trust resources and is therefore distinct from aquaculture, which is an agricultural activity involving the cultivation and harvest of private property (Fish and Game Code Sections 17, 15001, 15002, 15402).*

As noted previously in this addendum, this understanding is also reflected in the California Coastal Act which states in Section 30100.2 that " 'Aquaculture' means a form of agriculture as defined in Section 17 of the Fish and Game Code…"

Mr. Bagley's letter also suggests that because of this retained "right to fish" the State of California also maintains the right to continue to lease the submerged lands of Drakes Estero for shellfish cultivation. To support this, Mr. Bagley's letter refers to an enclosed letter from the Executive Director of the State Fish and Game Commission to the U.S. Secretary of the Interior which states that "The [Fish and Game] Commission will continue to regulate and manage oyster aquaculture in Drakes Estero pursuant to state law." This issue was addressed by the U.S. Department of the Interior in its May and November 2012 letters to the Fish and Game Commission's Executive Director, which state that:

> *The issue of the State of California's authority to issue aquaculture leases for the water bottoms in Drakes Estero has been addressed by the Department of Fish and Game's Office of General Counsel, by the Executive Officer of the State Lands Commission, and by the Attorney General's Office. All three have reached the same conclusion: that the "right to fish" under the public trust doctrine does not extend to aquaculture or to the leasing of water bottoms in Drakes Estero.*

and

> *As we have discussed with you in the past, the tide and submerged lands in Drakes Estero were conveyed by the State of California to the United States in 1965 by legislative grant. The only property right retained by the State was that pertaining to certain minerals. The 1965 conveyance therefore divested the State of its authority to lease the tide and submerged lands in Drakes Estero. The 1965 statute also reserved in the people the right to fish. We agree with both the Department of Fish and Game and the Attorney General's Office that the public trust right to fish does not extend to a private mariculture business like DBOC.*

Further, the Aquaculture Lease issued by the California Fish and Game Commission to Drakes Bay Oyster Company recognized the overarching federal authority over the operation by specifying that the lease was "contingent on a concurrent federal Reservation of Use and Occupancy for fee land in the Point Reyes National Seashore." This state lease was therefore terminated upon expiration of this federal Reservation of Use and Occupancy at midnight on November 30, 2012.

Phyllis M Faber
765 Miller Avenue
Mill Valley, CA 94941

May 4, 2015

Chairman Steve Kinsey
California Coastal Commission
45 Fremont Street
San Francisco, CA 94105

Re: CO 0001-15 Federal Consistency

Chairman Steve Kinsey,

I am a biologist, a founder of the Coastal Act and one of the original Coastal Commissioners. I urge you and your fellow Commissioners to **DENY** the consistency determination that will allow the Point Reyes National Seashore to remove oyster racks in Drakes Estero. The Park is asking to do this though they have done no impact analysis at all to the consequences for the health of the Estero.

The Point Reyes National Seashore already closed down the oyster farm that grew 40% of California's oysters and had CA's only cannery that provided oyster shell for the growing of oyster reefs in San Francisco Bay and for providing habitat for nesting snowy plover, an endangered bird in the Park, amongst other uses. The oyster farm was also the most heavily visited facility in the Park. All of this is now gone with little thought to the consequences.

The previous CCC cease and desist action against the Lunny family indeed neglected to consider Chapter 3 provisions of the 1976 California Coastal Act that support both agriculture and mariculture. These Cpt 3 policies were not mentioned by staff nor by Commissioners. They should certainly now consider them in the new Park request!

Tearing the racks out will be hugely disruptive to the Estero and particularly to the large eelgrass beds that have formed adjacent to the racks. This has occurred as a result of the filtering feeding action of oysters that results in clearing the water column. These large eel grass beds have become breeding grounds for myriad organisms that come in from the Pacific ocean seeking optimal conditions for juvenile organisms and thus have made Drakes Bay Estero so productive. Disrupting and destroying the eel grass beds should not be allowed and certainly not without adequate environmental review.

Closing down the oyster farm was a lost opportunity for California and for the National Park Service. When the Point Reyes Seashore was assembled in the 1960s, it was deemed so desirable BECAUSE of the oyster farm and all the agriculture that amounts to about 24% of all Marin County's ag land.

The Point Reyes Seashore could have become a national model for providing diverse sustainable and healthy food to the Bay Area in addition to the extensive beaches and recreational facilities. They appear to be choosing a park however solely devoted to recreational opportunities with no agriculture and an elk population that alternately over breeds and starves to death depending on rainfall conditions. Sadly the farms have the best pasture in the County because of the fog and abundant year round moisture but will fill with vast numbers of invasive weeds if the farms are removed. A pity!! NPS could do better. This year half their elk herd (one or two hundred!) quietly starved to death with no effort to come to their aid.

Please support the California Coastal Act and deny the consistency determination. The Park needs to protect their resources, become better land managers and not just rip out the racks and destroy the health of the Estero!

Sincerely,

Phyllis M. Faber

cc. Teufel Cassidy

May 3, 2015

Dear Steve,

I write to ask that you and your fellow Commissioners *object* to the consistency determination submitted by the National Park Service for the rack-removal project it is planning for Drakes Estero (item Th11a) on May's Commission agenda, for three reasons: (i) this is not a "restoration" project, (ii) it is inconsistent with various Coastal Act policies that go unmentioned in the staff report, and (iii) an EIR or EIS should be prepared for this project before any agency conditions or approves it.

As you know, I am the current Chair of the California Council on Science and Technology that offers expert scientific advice to the California government, and former Chair of the National Research Council's Board on Life Sciences which gives expert scientific advice to the Federal government. I am an elected member of the U.S. National Academy of Sciences, a former professor at UC Berkeley and Stanford, and current adjunct professor at UC Berkeley.

This Is Not A Restoration Project

The Park Service proposes to spend five months removing nearly 500 tons of oyster racks using a "barge mounted mechanical excavator" in Drakes Estero. The Park Service describes this as a "restoration" project. Indeed, the staff report makes clear that the Commission *must* find the project to be a "restoration" project in order for the Commission to legally be able to concur with the consistency determination. But the project is not restoring anything; it is creating a wholly new environment in Drakes Estero.

Before the arrival of European settlers in Point Reyes, Drakes Estero was a different environment. Top predators like bears and wolves roamed the cliffs and sandbars, keeping away slow-moving mammals like harbor seals. Mother seals nursing their pups would have been easy prey. Native clams, oysters, and other shellfish were abundant in the waters, performing the ecosystem service of filtering the water. By the late 19th and early 20th century, however, settlers had killed off the top predators and fished out the native shellfish.

Not long afterwards, however, the oyster farm in Drakes Estero was started. For many decades, those oysters were grown on wooden racks in Drakes Estero—racks that the National Park Service agrees have "historical significance" to California's maritime history.[1] The National Academy of Sciences viewed the cultivation of oysters in Drakes Estero as "contributions towards restoring an

[1] National Park Service (2011) National Registry Of Historic Places Registration Form for Johnson Oyster Company, at 12 (NPS reference NPS110411A). Inexplicably, neither the Park Service nor the staff report acknowledges the historic significance of these racks or proposes any mitigation for their loss.

historic baseline ecosystem in Drakes Estero".[2]

Oysters are being reintroduced in restoration projects from the Chesapeake Bay to Florida Gulf Coast, and from France to New Zealand.[3] This is why NOAA plays a major role in the Chesapeake Bay restoration project[4], and The Nature Conservancy plays a similar role in Virginia, North Carolina, Florida, Texas, and Louisiana projects.[5]

The Park Service is not proposing to restore the historic oyster racks, top predators, or native shellfish that were abundant in Drakes Estero. Rather, the Park Service is trying to destroy those racks in an effort to create a new environment in Drakes Estero—one free of shellfish and racks and safe for harbor seals—that has never existed before.[6] This is not restoration of anything. Because this is not a restoration project, the Commission legally cannot concur.

The Project Is Not Consistent With Other Coastal Act Policies

The staff report makes no mention of a number of relevant Coastal Act policies.

Coastal Act section 30001.5(a) states provides that a "basic goal[]" of the state for the coastal zone is the "[p]rotect … artificial resources". The racks are an artificial resource. Removing them would be inconsistent with this policy.

Coastal Act section 30242 prohibits "lands suitable for agricultural use" from being converted to "nonagricultural uses" unless "continued or renewed agricultural use is not feasible". Drakes Estero is a land suitable for agricultural use, because Coastal Act section 30100.2 defines aquaculture of the sort that had

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[2] National Research Council (2009) "Shellfish Mariculture in Drakes Estero, Point Reyes National Seashore, California" at p. 22 (emphasis added).

[3] *See*, *e.g.*, Chesapeake Bay Foundation (http://www.cbf.org/oysters; http://www.oysterrecovery.org), Florida Oyster Reef Restoration Project (http://www.oysterrestoration.com; http://www.fgcu.edu/CAS/OysterResearch/),

[4] http://chesapeakebay.noaa.gov/oysters/oyster-restoration

[5] http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/florida/explore/floridas-oyster-reef-restoration-program.xml

[6] On February 24, 2010, on the last day of the four-day Marine Mammal Commission (MMC) panel meeting reviewing the harbor seals at Drakes Estero (a recording of this meeting is available from the MMC), in response to Gordon Bennett's assertion that the MMC should endorse removing the oyster farm to restore Drakes Estero to its natural state for the harbor seals, one of the MMC panel members pointed out to Mr. Bennett that the natural state of Drakes Estero surely would not have included harbor seals, given the abundance of predators and easy access to the sandbars where today the harbor seals haul out with their pups. The marine mammal scientist went on to ask Mr. Bennett whether he planned to erect a 10-foot wall around Drakes Estero to keep out predators and turn the estero into a theme park for harbor seals.

been practiced there to be a form of agriculture. And continued aquaculture is feasible. The Wilderness Act does not prohibit oyster farming in Drakes Estero. (*Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073, 1095 (9th Cir. 2014) ("continued operation of the oyster farm was fully compatible with Drakes Estero's designation as wilderness") (Watford, J., dissenting).)[7] Rather, the Park Service's decision to remove the oyster farm was upheld simply as a matter of "discretion". (*Id.* at 1087.) If the decision about whether Drakes Estero can be used for an oyster farm is simply discretionary, then continued oyster farming there is feasible—and the Park Service's project to convert Drakes Estero to a nonagricultural use is inconsistent with the Coastal Act.

An EIR Or EIS Should Be Required

Last June, in invalidating nearly all of the Commission's 2013 enforcement orders against Drakes Bay Oyster Company, the Marin County Superior Court held that, owing to the unusual circumstances in Drakes Estero and the likely environmental harm that would result from removing the racks, an EIR had to be prepared before the Commission could approve rack removal.[8] But the staff report here includes no CEQA findings at all, much less any mention of an EIR having been prepared to support the recommended conditional concurrence. The Commission needs to prepare an EIR before concurring in any rack removal project.[9]

The Park Service has also not conducted any meaningful environmental review of this project. Although the Park Service did prepare a severely flawed EIS in 2012 that included removal of the oyster farm and its structures as one of the alternatives, that EIS did not evaluate anything resembling the Park Service's current plans.[10] That EIS contemplated a two to three month project, using

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[7] Also see Dr. Watt's amicus brief to the Ninth Circuit at http://cdn.ca9.uscourts.gov/datastore/general/2013/10/25/13-15227_Amicus_brief_by_Dr_Laura_Watt.pdf.

[8] The decision is available here: http://briscoelaw.net/wp-content/uploads/2014/06/2014-06-27-Judgment-in-DBOC-v-CCC.pdf. The judge later changed this judgment to an order, but left the substance of the ruling the same. The declarations that Drakes Bay Oyster Company submitted to the Commission in 2013 documenting the adverse environmental impacts that rack removal would cause, which the Marin court relied on in part, are hereby incorporated into this letter by reference.

[9] The Marin court also rejected the Commission's argument that its staff report was the functional equivalent of an EIR, noting that only the Commission's permit program had been certified as a functional equivalent. The Commission's federal consistency determination has also not been certified, so by the same logic it is also not a functional equivalent of an EIR.

[10] That EIS, like much of the Park Service's science on Drakes Estero, lacks scientific integrity, as recently exposed by *Newsweek*: http://www.newsweek.com/2015/01/30/oyster-shell-game-300225.html. Dr. Goodman's amicus brief to the U.S. Supreme Court also detailed the Park Service's lack

unspecified equipment, carried out by the Drakes Bay Oyster Company.[11] In a declaration filed in federal court under penalty of perjury, the Park Service specifically rejected as "not viable" the notion that an excavator would be needed for removing the racks, because an excavator "could result in substantial damage to sensitive eelgrass resources within Drakes Estero".[12] Yet now the Park Service is proposing to use just such an excavator for five months, without acknowledging the fact that it previously rejected that option because of the serious environmental impacts it would cause.

President Obama received a standing ovation from the country's top scientists at the National Academy of Sciences annual meeting in April 2009 when he said: "the days of science taking a back seat to ideology are over."[13] As we have witnessed over and over again concerning the oyster farm at Drakes Estero, science has continued to take a back seat to ideology. My worry is that the Commission is once again letting ideology triumph over science in ignoring its own policies and allowing the Park Service to remove the oyster racks – using the misguided label of a restoration project – without considering the environmental impacts and conducting a proper environmental assessment.

Clearly a full environmental review of the actual project currently being proposed by the Park Service needs to be undertaken so that the Commission can understand the possible environmental impacts. Only then can the Commission meaningfully consider the project, impose appropriate conditions, or concur that the project is consistent with the resource-protection policies of the Coastal Act. Until that happens, the Commission should object to the Park Service's consistency determination.

Sincerely,

Dr. Corey Goodman

cc: Cassidy Teufel

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of scientific integrity: http://sblog.s3.amazonaws.com/wp-content/uploads/2014/06/Goodman-Houser-DBOC-brief.pdf.

[11] See pages xxvii-xxviii.

[12] Declaration of Brannan Ketcham (January 9, 2013) at paragraph 31, case no. 4:12-cv-06134.

[13] *Remarks By The President At The National Academy Of Sciences Annual Meeting* (April 28, 2009), *available at* http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-at-the-National-Academy-of-Sciences-Annual-Meeting.

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COASTAL COMMISSION

CO 0001-15

50 Lockwood
San Rafael CA 94901
May 7, 2015

VIA FACSIMILE
415-904-5400

Chairman Steve Kinsey
California Coastal Commission
45 Fremont Street
San Francisco, CA 94105

Re: CO 0001-15 Federal Application for a Consistency Determination – Drakes Estero

Chairman Kinsey and Commissioners:

The federal request for a consistency determination that would allow the federal government to remove the oyster racks in Drakes Estero raises a jurisdictional question that should be referred to the California Attorney General for an opinion before any other action is taken on the request.

Factually and legally the State of California, acting through the Fish and Game Commission, has continuing jurisdiction over Drakes Estero fishing rights, and specifically the oyster planting and removal processes, and not the federal government. The oyster growing racks, the removal of which the federal government seeks to have the Coastal Commission approve, are a necessary component of the oyster growing operation.

I authored the 1965 Assembly Bill granting 11,000 acres of tidelands to the Point Reyes National Seashore, which bill reserved "fishing rights" to the State. The Department of the Interior has acknowledged and implemented this jurisdiction to include not just the common law public trust doctrine but to encompass the then existing oyster farm's rights and the State's continuing right to lease and control its operations.

Note not only the enclosed Fish and Game Commission letter of July 11, 2012, so stating the State's right but also note the April 1974 Department Of the Interior Environmental Impact Statement's [EIS] contemporary interpretation of fishing rights retained by the State. The EIS provides that ". . . control of the lease from the California Department of Fish and Game with presumed renewal indefinitely, is within the rights reserved by the State on these submerged lands."

The statement in the EIS, plus more than 40 years of continued operational status, confirms a property right in the nature of an easement for the State to continue to maintain, manage and control shellfish cultivation in Drakes Estero.

The fact that the Drakes Bay Oyster Company entered into an agreement with the National Park Service to cease shellfish cultivation in Drakes Estero and the Park Service agreed to assume any obligations the Oyster Company might have under its State lease does not and cannot affect the State's retained right to continue to lease Drakes Estero for shellfish cultivation. Furthermore, under Section 4 of Article X of the California Constitution, a future lessee would have the same right to access Drakes Estero to conduct its operations as other members of the public have to access Drakes Estero for recreation activities.

There are many other confirming aspects of the above that at a minimum require the State Attorney General's formal analysis and guidance before any action is taken on the requested consistency determination.

Very truly yours,

Signature on File

William T. Bagley

enclosure

STATE OF CALIFORNIA
Edmund G. Brown Jr., Governor

Fish and Game Commission

Sonke Mastrup, Executive Director
1416 Ninth Street, Room 1320
Sacramento, CA 95814
(916) 653-4899
(916) 653-5040 Fax
www.fgc.ca.gov

July 11, 2012

Secretary Salazar
Department of the Interior
1849 C Street, N.W.
Washington, DC 20240

Dear Secretary Salazar:

Subject: Drakes Bay Oyster Company

The California Fish and Game Commission, at its May 23, 2012 meeting, requested a letter be sent to interested parties regarding its position on the continued operation of Drakes Bay Oyster farm in Drakes Estero. To that end, let it be known that:

The Commission, in the proper exercise of its jurisdiction, supports and continues to support the agricultural business of aquaculture, and to that end, has clearly authorized the shellfish cultivation in Drakes Estero through at least 2029 through the lease granted to Drakes Bay Oyster Company. The Commission will continue to regulate and manage oyster aquaculture in Drakes Estero pursuant to state law. In this context, the Commission expresses its desire that the cultivation of oysters in Drakes Estero be recognized by the National Park Service as a valuable resource to the public and to the economy within the Point Reyes National Seashore. The Commission respectfully requests that, to the degree possible and consistent with the National Park Service's obligations to carry out federal law in cooperation with the State of California, the National Park Service grant the Drakes Bay Oyster Company all necessary onshore permits to continue shellfish cultivation operations within and in accordance with the Commission water bottom lease granted to that Company.

Sincerely,

Signature on File

Sonke Mastrup
Executive Director

cc: Senator Dianne Feinstein
One Post Street, Suite 2450
San Francisco, CA 94104

California Governor Edmund Brown Jr.
California State Capitol
State Capitol
Sacramento, CA 95814

Secretary John Laird
California Natural Resources Agency
1416 Ninth Street, 13th Floor
Sacramento, CA 95814

Superintendent Cicely Muldoon
Brannon Ketcham, Hydrologist
National Park Service
Point Reyes National Seashore
1 Bear Valley Road
Point Reyes Station, CA 94956

Chuck Bonham, Director
Department of Fish and Game
1416 Ninth Street, 12th Floor
Sacramento, CA 95814

Save Our Seashore

A 501(c)(3) Charitable Organization (EIN 94-3221625)
Founded in 1993 to Protect Marin County's Ocean, Coasts, Estuaries, Watersheds and Creeks
PO Box 342, Pt. Reyes Station, CA 94956 gbatmuirb@aol.com 415-663-1881

May 8, 2015

Re: Coastal Commission Meeting May 14, 2015 Agenda # Th11a CD-0001-15

SUPPORT National Park Service Drakes Estero Restoration

Dear Coastal Commissioners: Save Our Seashore requests that your Commission SUPPORT Staff's recommendation of Conditional Concurrence re CD-0001-15.

We also object to and rebut the false and misleading letters dated May 8th from Bill Bagley and May 3rd from Dr. Goodman that request that you deny that Concurrence.

1) Dr. Goodman falsely claims (pg 3-4):

> *…the Park Service specifically rejected as "not viable" the notion that an excavator would be needed for removing the racks, because an excavator "could result in substantial damage to sensitive eelgrass resources within Drakes Estero". Yet now the Park Service is proposing to use just such an excavator…*
>
> Declaration of Brannan Ketcham (1/9/13) at ¶ 31, Case no. 4:12-cv-06134

But the rejected "excavator" was proposed by oyster company advisors (Abbott), not the Park Service, which is shown by the full context of the Declaration (emphasis ours):

> *"the "Heavy Equipment for Oyster Rack Removal"" Alternative (Abbott Dec ¶ 9) including the use of a…**100-200 ton excavator**…is likely far larger than necessary to accomplish the work and could result in substantial damage to sensitive eelgrass…as a result this proposal* [Abbott's] *is not viable…"*

Shown to the right is a typical 150 Ton Excavator that Dr. Goodman would have you believe the Park Service proposing to use:

http://caterpillar-machines.buy.fazendomedia.com/iz61b348e-kobelco-150-ton-used-crawler-crane-for-sale-indonesia-images.html

But contrary to Dr. Goodman's false claim, NPS is not proposing to use "just such a [100-200 ton] excavator." Instead the Park Service Project proposes (pg 10) an excavator ~98% smaller with commensurately less eelgrass impact: **2-5 ton "mini" excavator**:

> *"The mini-excavator…is proposed as the primary equipment for rack removal. Figure 5 shows a typical mini-excavator. Generally, mini-excavators have a lifting capability of over 4,000 lbs and less than 10,000 lbs…."*

Figure 5: Typical Mini-Excavator Photo: www.cat.com

2) Dr. Goodman's letter (pg 2) also misleadingly claims

> *Coastal Act section 30001.5(a) states provides that a "basic goal[]" of the state for the coastal zone is the "[p]rotect … artificial resources". The racks are an artificial resource. Removing them would be inconsistent with this policy.*

But the more complete text of Coastal Act Section 30001.5 reads (emphasis ours):

> *"The Legislature further finds and declares that the basic goals of the state for the coastal zone are to: (a) Protect, maintain, and, where feasible, enhance and restore the overall quality of the coastal zone environment and its* ***natural and artificial*** *resources."*

As well as the derelict racks, the oyster farm also left thousands of pounds of debris, which would also be "artificial resources" supposedly protected by the Coastal Act per Dr. Goodman's misleading quote. Dr. Goodman concocted that misleading quote by carefully placed quotation marks and parentheses, repeating a pattern described by Congressman Jared Huffman in the 6/19/13 Marin Independent Journal:

> *"Corey Goodman's misleading partial quote is another red flag in a debate where civility and truth have been casualties to strong opinions."*

3) Dr. Goodman's letter (pg 1) also misrepresents facts to buttress his historical claim:

> *"Inexplicably, neither the Park Service nor the staff report acknowledges the historic significance of these* [oyster] *racks….*

But contrary to Dr. Goodman, the Park Service Proposal (pg 25) does reference a historical determination that found that the operation (but not the physical racks) was the only historical aspect that had significance (emphasis ours).

> *"A Determination of Eligibility (DOE)…found that while the oyster-growing* ***operation*** *in Drakes Estero is significantly associated with the rebirth and development of the California oyster industry…*[but] *In an August 4, 2011 letter, the SHPO concurred with the NPS determination that* ***none of the facilities*** *associated with DBOC's operation are eligible for listing on the National Register.*

4) Dr. Goodman's letter (pg 2-3) further misleadingly claims:

> *"The Wilderness Act does not prohibit oyster farming in Drakes Estero. (Drakes Bay Oyster Co. v. Jewell, 747 F.3d 1073, 1095 (9th Cir. 2014) ("continued operation of the oyster farm was fully compatible with Drakes Estero's designation as wilderness") (Watford, J., dissenting).)."*

But Dr. Goodman's argument relies on the **dissenting** opinion in this federal case that has already been decided in favor of the Park Service decision to allow the oyster lease to expire in conformance with the Act's prohibition on structures, motors and commercial operations in designated Wilderness. Thus oyster farming is **not** any longer "feasible."

Dr. Goodman's other legal reference (pg 4) to the Marin Superior Court case is irrelevant because a Consistency Determination applicable to a federal action is wholly different from a Cease and Desist Order applicable to a private business.

What is relevant from that Marin case is the Judge's opinion that Bill Bagley's May 8th assertion that removal of the rack is under state jurisdiction (because he claims mariculture is "fishing", not "agriculture") has no basis in law, precedent or reason. Neither Dr. Goodman's agriculture claim not Bill Bagley's opposite fishing claim has any relevance except to demonstrate that they are both muddled and conflicting arguments thrown on the Commission's wall to see what might stick.

Again quoting Congressman Huffman in the 4/30/15 Point Reyes Light:

> *"I think we're litigating these old accusations for a matter that has been closed at a time when this community is trying to move on."*

5) Lastly Dr. Goodman (pg 1-2) invents facts and/or presents only one side of various scientific controversies to support his astonishing claim that:

"the project is not restoring anything; it is creating a wholly new environment…"

a) To support his "no-restoration" claim, Dr. Goodman first asserts:

"Before the arrival of European settlers in Point Reyes, Drakes Estero was a different environment. Top predators like bears and wolves roamed the cliffs and sandbars, keeping away slow-moving mammals like harbor seals."

But Dr. Goodman's claim is far outside the scientific and historical consensus that seal populations were depleted by settlers and hunters, not by predators:

"Prior to state and federal protection and especially during the nineteenth century, harbor seals along the west coast of North America were greatly reduced by commercial hunting (Bonnot 1928, 1951; Bartholomew and Boolootian 1960). Only a few hundred individuals survived in a few isolated areas along the California coast (Bonnot 1928). In the last half of this century, the population has increased dramatically." (NOAA po2011sehr-ca.pdf) Yet natural predators continue to roam and prey freely around Drakes Estero:

http://www.nps.gov/media/photo/gallery.htm?id=C5B117C5-FAEA-A8E8-E88386F689479D01

b) To further support his "no-restoration" claim, Dr. Goodman also references the National Research Council (NRC) Report:

"By the late 19th and early 20th century, however, settlers had…fished out the native shellfish…The National Academy of Sciences viewed the cultivation of oysters in Drakes Estero as "contributions towards restoring an historic baseline ecosystem…"

Yet Dr. Goodman omits the NPS Historical Study (Babalis 8/11/09) that concluded:

"this [NRC] *conclusion to be improbable and indefensible, because there is little factual evidence to support the assumptions on which it is based…A more thorough-going and critical review of the historic record…suggests that oyster mariculture represents and entirely novel and artificial introduction of oysters to Drakes Estero...this failure to employ professionally-acceptable standard of historical research…seriously undermines* [the NRC Report's] *authoritative value…"*

c) To again support his "no-restoration" claim, Dr. Goodman states:

Oysters are being reintroduced in restoration projects...This is why NOAA plays a major role in the Chesapeake Bay restoration project, and The Nature Conservancy plays a similar role in Virginia, North Carolina, Florida, Texas, and Louisiana…"

But these restoration projects focus on restoring **native** oysters, not the non-native oysters (*Crassostrea gigas*) cultivated in Drakes Estero. In fact, *C. gigas*, has gone feral and established self-sustaining populations in 17 countries (Ruesink et al, 2005) and the San Francisco Estuary Institute states:

"Crassostrea gigas, were it to become widespread in San Francisco Bay, poses perhaps the greatest risk to native oysters and oyster restoration efforts. (Grosholz et al, 2010)"

Thus, the Commission should reject Dr. Goodman's unsupported conclusion that "*Because this is not a restoration project, the Commission legally cannot concur."* In contrast to Dr. Goodman's misleading claims, the Park Service Project is indeed a restoration project that seeks to remove 80 years of debris and invasive species and restore an area (Congressionally-designated Wilderness) intended to have the highest level of environmental protection.

Please support Staff's recommendation of Conditional Concurrence.

Sincerely, Signature on File President, Save Our Seashore

May 11, 2015

Dr. Charles Lester, Executive Director
California Coastal Commission
Via email: Charles.lester@coastal.ca.gov

Re: Agenda Item Th11a – Drakes Estero Wilderness restoration – Support

Dear Dr. Lester,

The Environmental Action Committee of West Marin (EAC) appreciates the opportunity to express its support for, and provide comments on, agenda item Th11a, the federal consistency determination for the restoration of Drakes Estero Wilderness. Since 1971, EAC has worked to protect and enhance the natural environment of West Marin, advocating protection for the region's spectacular bays, wild lands, and marine environment. EAC and its partners led the charge to protect and uphold the 1976 Congressional wilderness designation for Drake Estero, which is considered the ecological heart of Point Reyes National Seashore. After eighty years of non-native oyster cultivation, motorboat traffic, and plastic debris pollution, the West Coast's only marine wilderness area is finally on a path to be restored to its native ecology.

EAC has reviewed the staff report and supports its recommendation of conditional concurrence that would grant a restoration permit contingent upon the Point Reyes National Seashore (Seashore) preparing an acceptable Eelgrass Monitoring and Restoration Plan. EAC urges the Commission to find conditional concurrence with the federal consistency determination without delay.

EAC understands that roughly two-thirds of an acre of eelgrass will be temporarily impacted by the Seashore's restoration efforts. However, with removal of the 477 tons of pressure-treated wooden racks, a much greater amount of eelgrass habitat will be created, resulting in a significant net restoration of important eelgrass habitat.

It is clear that the Seashore went to great lengths to assess all possible means of removing the rack lumber. It is also clear that the Seashore took every precaution to ensure selection of the least environmentally damaging alternative regardless of a resulting increase in cost.

EAC also concurs with the Commission staff's analysis and conclusion that the Seashore's plan takes appropriate precautions to ensure the protection of biological resources and public access,

to avoid harbor seal disturbance, to minimize the spread of non-native biofouling organisms, to prepare and adhere to an oil spill prevention and response plan, and to adhere to an anchoring plan that minimizes placement of anchoring devices in eelgrass.

EAC has reviewed the comment letters submitted by Mr. Bill Bagley, Ms. Phyllis Faber, and Dr. Corey Goodman urging the Commission to delay or reject the federal consistency determination. These letters merely repeat arguments that have been previously offered and rejected as part of the Drakes Bay Oyster Company's unsuccessful federal litigation that attempted to overturn the congressional wilderness designation for Drakes Estero [See *Drakes Bay Oyster Co. v. Jewell*, 747 F.3d 1073 (9th Cir. 2014)].

Importantly, the Seashore prepared a full Environmental Impact Statement using peer-reviewed research that considered the impacts of restoring Drakes Estero to full wilderness -- the "no action" decision that then-Interior Secretary Salazar took to let the federal lease expire. Accordingly, EAC finds that these comment letters have no bearing on the pertinent issues at hand and should be dismissed due to their lack of merit.

Thank you for your consideration of our comments.

Respectfully yours,

Signature on File

Amy Trainer, Executive Director

Environmental Action Committee of West Marin
PO Box 609 Point Reyes, California 94956
www.eacmarin.org 415.663.9312

May 11, 2015

Dr. Charles Lester
Executive Director
California Coastal Commission
Via email: Charles.lester@coastal.ca.gov

Re: Agenda Item Th11a – Drakes Estero Wilderness restoration - SUPPORT

Dear Dr. Lester and Commissioners,

The National Parks Conservation Association (NPCA), on behalf of its more than one million members and supporters nationwide including more than 116,000 in California, supports the Commission staff's recommendation regarding agenda item Th11a, the federal consistency determination for the restoration of Drakes Estero Wilderness in Point Reyes National Seashore. We urge the Commission to support the staff recommendation without delay.

NPCA is America's only private, non-profit advocacy organization solely dedicated to protecting and enhancing America's national parks. NPCA was founded in 1919, and has long supported the protection of Drakes Estero. We have reviewed the staff report, and appreciate and applaud the work of Commission and National Park Service (NPS) staff on advancing this restoration project so that all Californians and Americans can benefit from and be inspired by the West Coast's only marine wilderness.

The staff report highlights the ecological benefits of removing 477 tons of pressure-treated wooded racks, including the restoration of eelgrass habitat that is now degraded and impaired by the racks. The staff report also details how this restoration project will be protective of biological resources and will not restrict public access.

Last year, after unsuccessfully litigating the Interior Department's decision to let its lease to expire as long planned and paid for, the former Drakes Bay Oyster Company (DBOC) wrote and approved a settlement agreement that permanently ended its commercial operation and commenced the restoration of Drakes Estero. In fact, it was DBOC that took the first steps to stop its ongoing degradation of the estero and start restoration activities by ending its planting of non-native oysters and highly invasive manila clams and use of motorboats. Since January 1, 2015, when the DBOC transferred the remaining restoration work to the NPS per the terms of the court-ordered settlement agreement, the NPS has already removed

significant amounts of non-native oyster bags and plastics pollution that DBOC unfortunately abandoned and did not clean up (though required by the settlement agreement)[1].

Decades ago, Americans purchased and planned for Drakes Estero to be included in the Seashore and protected as invaluable marine wilderness. With the court ordered settlement agreement that codifies the longstanding plan to protect and restore Drakes Estero, and the Commission staff's diligent work on federal consistency, we strongly support the staff's recommendation to advance restoration of the ecological heart of the Point Reyes National Seashore.

Thank you for your consideration of our comments.

Sincerely,

Signature on File

Neal Desai
Pacific Region Director of Field Operations
National Parks Conservation Association

[1] Front page feature article in Santa Rosa Press Democrat regarding restoration of Drakes Estero: "Cleanup transforms Drakes Estero", March 23, 2015. http://www.pressdemocrat.com/home/3703479-181/cleanup-transforms-drakes-estero

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

Th11a

CD Filed:	3/17/2015
60th Day:	5/16/2015
75th Day:	5/31/2015
Staff:	C. Teufel-SF
Staff Report:	4/24/2015
Hearing Date:	5/14/2015

STAFF REPORT: REGULAR CALENDAR

Consistency Determination:	**CD-0001-15**
Applicant:	**National Park Service-Point Reyes National Seashore**
Location:	Drakes Estero
Project Description:	Restoration of Drakes Estero through removal of marine debris and equipment associated with the former Drake's Bay Oyster Company aquaculture operation.
Staff Recommendation:	Conditional Concurrence

SUMMARY OF STAFF RECOMMENDATION

The National Park Service (NPS), Point Reyes National Seashore (PRNS) submitted to the Coastal Commission a consistency determination to remove marine debris and equipment associated with the former Drake's Bay Oyster Company shellfish aquaculture operation in the Drakes Estero portion of the PRNS. Shellfish aquaculture operations ceased on December 31, 2014, and the NPS entered into an agreement with Drakes Bay Oyster Company to clean-up and restore the former aquaculture operations areas both onshore and offshore. The Commission authorized onshore removal operations through Negative Determinations number ND-0042-14

and ND-0047-14. In this consistency determination, the NPS proposes primarily to extract 95 wooden rack structures dispersed across approximately seven acres within the roughly 1700 acre upper portion of Drakes Estero. These rack structures are comprised of between 200,000 and 250,000 board feet of lumber (approximately 477 tons) used to support shellfish cultivation equipment.

Extraction of these structures and associated debris would be carried out through the use of a barge-mounted mechanical excavator and would rely on the use of support barges to transport extracted timber and debris to the shoreline where it would be transferred to trucks and brought to certified disposal facilities. Transfer of materials from support barges to shore would be accomplished through the use of a temporary (five month) dock system that would be installed to connect the shoreline to one of the estero's deep water channels.

Restoration activities would also include removal of aquaculture gear (small anchoring devices, lines, plastic ground mats, and abandoned shellfish product) from approximately 0.88 acres of intertidal sandbar areas.

To avoid or lessen potential adverse impacts to coastal resources, including biological resources and public access, the NPS proposes allowing public access to onshore and offshore areas in the estero to continue during the project period; implementing seal disturbance avoidance protocols; implementing control procedures to minimize potential spread of non-native biofouling organisms; requiring offshore project contractors to adhere to an approved spill prevention and response plan; and requiring offshore project contractors to adhere to an anchoring plan that minimizes placement of anchoring devices in eelgrass.

Despite these impact avoidance and minimization measures, NPS estimates that up to 0.59 acres of eelgrass would be lost or damaged as a result of the proposed removal of aquaculture infrastructure and debris. This area of eelgrass impact would be spread across the 95 rack removal sites in the estero and the 3,200 square foot footprint of the temporary dock structure. Because the majority of Drakes Estero supports robust beds of dense eelgrass, including those areas surrounding the 95 rack structures proposed for removal, NPS anticipates that with the removal of these structures and associated debris, additional eelgrass habitat would be created. The NPS estimates a total of 2.8 acres of eelgrass habitat would be created as a result of this restoration project (through the removal of physical material from eelgrass habitat that is precluding eelgrass growth). The NPS therefore anticipates the removal to result in a restoration to impact ratio for eelgrass of approximately 4.7:1 (2.8 acres of restoration for 0.59 acres of impact), substantially higher than the typical ratio of 1.2:1 that is established in the California Eelgrass Management Plan and has been required by the Commission in a large number of coastal development permits (and other review) throughout the state.

To ensure that at least this 1.2:1 mitigation ratio is met, NPS is developing an Eelgrass Monitoring and Restoration Plan that will include a post-project eelgrass impact assessment (in order to quantify actual project impacts to eelgrass), and monitoring of eelgrass colonization into newly opened eelgrass habitat (to determine how much of the expected 2.8 acres of new eelgrass habitat supports eelgrass after one year). The plan would also include contingency measures to ensure that project impacts to eelgrass are mitigated at a ratio of no less than 1.2:1

(restoration:impact). Commission staff recommends a **condition** providing that this plan be submitted for Executive Director review and approval prior to the initiation of project activities.

With implementation of the NPS proposed impact avoidance and minimization measures and the eelgrass condition described above, the Commission staff believes the project will be carried out consistent with the wetland, marine resources, public access, water quality, and oil spill policies of the Coastal Act. The Commission staff recommends the Commission **conditionally concur** with consistency determination CD-0001-15.

TABLE OF CONTENTS

I. FEDERAL AGENCY'S CONSISTENCY DETERMINATION.....4
II. MOTION AND RESOLUTION.....4
III. CONDITIONS.....4
IV. FINDINGS AND DECLARATIONS.....5
A. Project Description.....5
B. Federal Consistency.....7
C. Other Agency Approvals and Consultations.....8
D. Placement of Fill and Dredging in Marine Waters.....8
E. Marine Resources.....12
F. Access and Recreation.....19
G. Oil Spills.....20

APPENDICES

Appendix A – Substantive File Documents

EXHIBITS

Exhibit 1 – Proposed Project Location

I. FEDERAL AGENCY'S CONSISTENCY DETERMINATION

The National Park Service has determined the project consistent to the maximum extent practicable with the California Coastal Management Program (CCMP).

II. MOTION AND RESOLUTION

Motion:

*I move that the Commission **conditionally concur** with consistency determination CD-0001-15 by concluding that the project would be fully consistent, and thus consistent to the maximum extent practicable, with the enforceable policies of the CCMP, provided the National Park Service agrees to modify the project consistent with the condition specified below, as provided for in 15 CFR §930.4.*

Staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence with the determination of consistency, provided the project is modified in accordance with the recommended condition, and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution:

The Commission hereby conditionally concurs with consistency determination CD-0001-15 by the National Park Service on the grounds that the project would be fully consistent, and thus consistent to the maximum extent practicable, with the enforceable policies of the CCMP, provided the National Park Service agrees to modify the project consistent with the condition specified below, as provided for in 15 CFR §930.4.

III. CONDITIONS

1. **Eelgrass.** PRIOR TO COMMENCEMENT OF OFFSHORE OPERATIONS, NPS shall submit for review and approval by the Executive Director of the Coastal Commission (Executive Director) an Eelgrass Monitoring and Mitigation Plan that, consistent with the protocols established in the California Eelgrass Management Policy and Implementing Guidelines (CEMP), provides for a quantitative accounting of project impacts to eelgrass, monitors recovery and colonization of eelgrass, and establishes contingency measures to be implemented if all project impacts to eelgrass have not been mitigated by a ratio of at least 1.2:1 (restoration area:impact area) within one year and maintained for at least one additional year. No offshore project operations shall commence until the Executive Director has approved the Eelgrass Monitoring and Mitigation Plan.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

The National Park Service (NPS) included the following overview of the proposed project in its consistency determination:

> *The primary planning approach for this project is to maximize removal of aquacultural infrastructure and debris while minimizing impacts to existing eelgrass beds. The NPS intends to remove or treat as much unnatural hard structure as feasible to improve potential for eelgrass to expand, and to minimize potential habitat for the non-native invasive tunicate Didemnum vexillum (Dvex).*
>
> *The NPS has observed that while eelgrass is present around the active racks, in many cases there is little to no eelgrass present beneath the racks. The factors influencing this include shading from the rack and the former hanging culture, as well as debris accumulation forming an oyster shell cap over the bed surface.*
>
> *The nature of the work (removal of infrastructure), the proximity of eelgrass to many of the structures (within and immediately adjacent), and the hydrodynamics of the estuary (high tidal flushing) make the design and evaluation of the project and its potential impacts unique. The removal of infrastructure that is unnatural to the system is beneficial both in the short and long term.*
>
> *Eelgrass is immediately adjacent to many of the racks and removal of the racks necessitates access to and likely impacts to eelgrass adjacent to the racks. Removal of materials and debris associated with these linear structures will necessitate that the contractor moves along the line quickly. As a result, the duration of work at any one location will be minimal. This coupled with the energetic tidal dynamics and hydrologic turnover, the indirect impacts associated with rack removal and aquacultural debris removal will be minimal. The project will include long-term monitoring to evaluate multiple response, restoration, and research questions regarding removal of aquaculture infrastructure and debris from Drakes Estero.*

This project represents the latest phase in a multi-phase effort by NPS to restore the Drakes Estero portion of the Point Reyes National Seashore through the removal of both onshore and offshore structures, equipment, materials, and debris from Drakes Estero that were previously associated with shellfish aquaculture operations (Johnson Oyster Company prior to 2005 and Drakes Bay Oyster Company from 2005 through 2014). The last of these operations, by the Drakes Bay Oyster Company, began in 2005 and terminated on December 31, 2014. Prior to the end of its operations, the Drakes Bay Oyster Company entered into an agreement with NPS that allowed it to cease operations without carrying out complete clean-up, removal and restoration activities of its former onshore and offshore aquaculture operation areas. NPS is therefore carrying out these clean-up, removal and restoration activities. Several recent NPS projects focused on the demolition and removal of onshore buildings, sheds, and dock structures and were

authorized by the Commission through Negative Determinations ND-0042-14 and ND-0047-14. In addition, the Commission authorized the installation of a temporary fence around the onshore operations area and the conduct of a rack removal test effort through ND-0004-15. The current project is focused primarily on disassembling and extracting 95 wooden rack structures from within the waters of Drakes Estero. These racks were used to support hanging wires, bags, and plastic tubes seeded with oysters and were a significant component of the former shellfish culture operations in the estero.

The 95 wooden racks are comprised of an approximate total of 200,000 to 250,000 board feet of lumber and vary in size from about 100 feet to 600 feet in length and 10 to 15 feet in width. Rack timber varies from 2-inch by 4-inch to 2-inch by 6-inch boards. Vertical rack posts are sunk several feet into the muddy and sandy seafloor of the estero to provide stability for the rack. Racks are typically about six-feet above the seafloor of the estero (exposed at low tide and submerged at high tide), between eight- and fourteen-feet wide, and joined together by screws and nails of varying lengths. All racks appear to have been in place in the estero for more than ten years and some for significantly longer. As such, some structures are in an advanced state of decay and are no longer structurally sound or intact. NPS estimates that of the 2234 rack sections in the estero, 128 have collapsed and sunk, sometimes with a substantial amount of shellfish cultivation gear attached.

Proposed rack disassembly and extraction activities include the use of a barge-mounted mechanical excavator as well as the use of divers and boat-based workers operating hand tools such as saws and pry-bars. The excavator would be equipped with a swing arm that would be operated with a variety of attachments, including hydraulic scissors, a grapple-claw, and excavation tool. This excavator would be used to disassemble rack timber into manageable lengths, pull it off of racks or out of the seafloor, and place it within debris containers located on support barges. The excavator barge and support barges would be moved between anchoring sites at the 95 individual rack sites through the use of small outboard motors. Once debris containers are loaded, support barges would be moved to the onshore base of operations at the former Drakes Bay Oyster Company retail sales and processing site. NPS proposes to install a temporary floating dock structure at this site that would extend approximately 150-feet into the estero. The dock would be used to facilitate offloading of filled debris containers from transport barges and transfer to shore where they may be loaded on trucks for offsite transport to a certified receiving facility.

In addition to the proposed removal of rack structures from Drakes Estero, NPS also proposes to collect and remove abandoned non-native cultured shellfish, shellfish debris, and cultivation equipment from throughout the estero. Abandoned non-native cultured shellfish, shellfish debris, and cultivation equipment is located within eelgrass beds, on the seafloor below the rack structures, on and around shoreline areas, and on intertidal sandbars and mudflats. To remove material and debris from below racks, NPS proposes to use the barge mounted excavator equipped with a dredge bucket (for removal of densely accumulated debris from below racks) as well as hand labor. Hand labor would be used for the removal of plastic material, debris, and non-native shellfish from eelgrass beds, sandbars, and shoreline areas. NPS estimates that this material and debris removal activity would occur on a total of approximately two acres spread across several dozen sites below racks, and on shoreline, and mudflat areas.

Further, NPS also proposes to carry out an experimental treatment of areas below racks in which high to moderate concentrations of cultivated shellfish debris (shell and shell fragments, as well as plastic, wood, and metal debris) are located. In its current state, this material appears to prevent the natural recruitment of eelgrass into these sites by occupying the substrate and acting as a physical barrier to eelgrass growth. While NPS has considered several methods of removing the densest concentrations of this debris, the total area it represents – approximately 2.4 acres – as well as its expected volume, posed significant challenges in terms of logistics, costs, and potential for adverse environmental impacts. NPS therefore developed a plan to carry out and evaluate several smaller scale experimental treatments, including the use of a combination of hand removal by divers, limited mechanical removal with shallow dredge buckets, and mechanical sediment mixing to disperse existing "shell caps" and increase open sediment areas that can be colonized by eelgrass. These three treatments would be carried out across a total area of 1.5 acres within the footprint of several dozen racks and would be the subject of follow-up monitoring to evaluate their success at promoting eelgrass growth and colonization.

B. FEDERAL CONSISTENCY

On March 17, 2015, Commission staff received a consistency determination from the National Park Service (NPS) for the proposed restoration project described above. Unless extended by NPS, the Commission's review period for this consistency determination will terminate on May 16, 2015.

Conditional Concurrences
Section 15 CFR § 930.4 of the Federal Consistency regulations provides, in part, that:

> *(a) Federal agencies…should cooperate with State agencies to develop conditions that, if agreed to during the State agency's consistency review period and included in a . . . Federal agency's final decision under subpart C … of this part, would allow the State agency to concur with the Federal action. If instead a State agency issues a conditional concurrence:*
>
> > *(1) The State agency shall include in its concurrence letter the conditions which must be satisfied, an explanation of why the conditions are necessary to ensure consistency with specific enforceable policies of the management program, and an identification of the specific enforceable policies. The State agency's concurrence letter shall also inform the parties that if the requirements of paragraphs (a)(1) through (3) of the section are not met, then all parties shall treat the State agency's conditional concurrence letter as an objection pursuant to the applicable Subpart and notify, pursuant to §930.63(e), applicants, persons and applicant agencies of the opportunity to appeal the State agency's objection to the Secretary of Commerce within 30 days after receipt of the State agency's conditional concurrence/objection or 30 days after receiving notice from the Federal agency that the application will not be approved as amended by the State agency's conditions; and*
> >
> > *(2) The Federal agency (for Subpart C),… shall modify the applicable plan,[or] project proposal, pursuant to the State agency's conditions. The Federal agency, shall*

immediately notify the State agency if the State agency's conditions are not acceptable…;

(b) If the requirements of paragraphs (a)(1) through (3) of this section are not met, then all parties shall treat the State agency's conditional concurrence as an objection pursuant to the applicable Subpart.

C. OTHER AGENCY APPROVALS AND CONSULTATIONS

U.S. Army Corps of Engineers
The U.S. Army Corps of Engineers (USACE) has regulatory authority over the proposed project under Section 10 of the Rivers and Harbors Act of 1899 and potentially Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act regulates work and structures in navigable waters of the U.S. Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into waters of the U.S. NPS submitted a permit application to ACOE in April of 2015 requesting authorization under Nationwide Permit 27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities) and anticipates receiving USACE authorization once consultation with the National Marine Fisheries Service for species, critical habitat, essential fish habitat, and marine mammals has concluded. If the NPS has not received the appropriate Section 401 of the Clean Water Act Water Quality Certification or Coastal Zone Management Act Consistency Determination at the time of NWP verification issuance, the verification would be conditional upon receiving them.

National Marine Fisheries Service
The National Marine Fisheries Service (NMFS) has responsibilities over the proposed project under the Marine Mammal Protection Act (MMPA), the Magnuson-Stevens Fisheries Conservation and Management Act (MSA), the Endangered Species Act (ESA), and the Fish and Wildlife Coordination Act. NMFS is anticipated to provide comments on the proposed project to ACOE during its review process.

D. PLACEMENT OF FILL AND DREDGING IN MARINE WATERS

Section 30233(a) of the Coastal Act states in part:

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.

The proposed installation of a temporary dock structure to facilitate the transfer and disposal of materials from Drakes Estero, as well as the placement of temporary anchoring devices and moorings for work barges constitutes the placement of fill in an estuary. The proposed mechanical removal of debris and sediment from areas of high to moderate concentrations of cultivated aquaculture debris beneath rack structures and on intertidal sandbars constitutes the dredging of open coastal waters. Coastal Act Section 30233(a) restricts the Coastal Commission from authorizing a project that includes fill of open coastal waters unless it meets three tests. The first test requires that the proposed activity must fit into one of seven categories of uses enumerated in Coastal Act Section 30233(a). The second test requires that there be no feasible less environmentally damaging alternative. The third test mandates that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

Allowable Use Test

One of the seven allowable uses of dredging and fill under 30233(a) is for restoration purposes. Because the proposed dredging, dock structure, and anchoring devices would support NPS restoration efforts in Drakes Estero by facilitating the removal of debris and abandoned structures and materials, the Commission finds that the proposed project meets the allowable use test of Coastal Act Section 30233(a), specifically subsection (a)(6).

Alternatives

The Commission must further find that there is no feasible less environmentally damaging alternative to the proposed placement of fill and dredging in coastal waters. NPS and Commission staff considered several project alternatives that would eliminate the placement of fill in coastal waters but determined that these alternatives were either infeasible or would not be less environmentally damaging than the proposed project. NPS also considered (and closely coordinated with Commission staff on) project alternatives that did not include the proposed limited shallow dredging of areas of moderate and high debris accumulation beneath racks and on intertidal sandbars. Because eliminating the use of limited, shallow, dredging techniques would not allow NPS to fully remove the accumulated debris in these areas, such alternatives were determined to be infeasible as they were not consistent with the project restoration goals to successfully remove aquaculture debris and material from Drakes Estero. Given the amount, type, weight, and partial burial of debris, the exclusive use of hand labor was found to be infeasible. Divers would not be able to remove the largest and heaviest material by hand and would take an extremely long time to complete removal activities within the approximately 7 acre footprint of the existing racks.

The “no fill” alternatives considered by NPS included: (1) the use of dynamic positioning barges capable of maintaining position without the need for anchors or moorings; (2) limiting the transfer of materials to shore to only periods of high tide when barge access to the shoreline can be accomplished; and (3) the use of shore-mounted cranes to transport material off of barges located away from the shoreline and bring it to shore.

While the first of these alternatives, use of dynamic positioning, would eliminate the need for anchoring, dynamic positioning systems rely on the constant use of underwater motors or water jets to compensate for directional force such as wind and currents that act on the vessel. Given the abundance of dense eelgrass within and around the majority of proposed work sites and the fact that this eelgrass extends through the water column to the surface at some tidal heights, the constant use of positioning motors or underwater jets could result in extensive scour, cut, and displacement of eelgrass around and below barge work sites. This alternative would therefore be more environmentally damaging than the proposed limited and careful use of anchoring and mooring devices.

As an alternative to the installation of the proposed temporary dock, NPS also evaluated the feasibility of only transferring debris and materials to shore during the highest tidal cycles when shallow-draft barges may approach the shoreline without running aground. However, given the quantity of material that NPS proposes to remove from the estero – nearly 500 tons – as well as the holding capacity of individual barges, the NPS considers this alternative infeasible (and more damaging) because it would have severely limited the amount of material that could be transferred to shore each day and therefore extended the project timeline from approximately five months to several years.

Regarding the use of a shore-mounted crane as an alternative means of transferring material from offshore barges to shore, NPS determined that this alternative would be infeasible due to the difficulty of obtaining and transporting a crane of sufficient size to the project site, the significant time that would be required for offloading operations using this technique (which would extend the project period substantially), and the excessive cost of procuring, operating, and installing a crane of sufficient size.

NPS therefore focused instead on designing a dock system and anchoring plan that would result in the minimum amount of fill and the placement of this fill in a manner that would avoid or minimize potential adverse environmental impacts to the extent feasible. Accordingly, NPS developed anchoring guidelines that require project operators to, whenever possible: (1) make use of existing rack structures as moorings; (2) make use of narrow mooring posts with a small benthic footprint for barge stabilization; and (3) place anchors within the disturbed footprint of racks that do not support eelgrass. In addition, the anchoring guidelines prohibit the use of anchor chains within eelgrass and require that anchor deployment be carried out where the bottom is visible in order to ensure that anchors are not placed in eelgrass. These measures would both minimize the amount of anchoring and mooring material required to meet the project needs and limit the impacts associated with the use of this material.

Similarly, the proposed installation and use of a dock to support project activities was designed to minimize both the amount of fill and potential impacts associated with its placement. NPS has

proposed a 20 foot by 150 foot floating dock system that would be attached to shore at a bulkhead and allow for the use of a forklift to transfer filled debris containers from work barges to shore (where they would be loaded onto trucks for transport to certified disposal facilities) and empty debris containers from shore to the work barges. The dock system would (1) be temporary and removed at the conclusion of the five month project period; (2) be constructed of segments so that its size could be reduced if project operations and needs allow; and (3) be designed to float to reduce the displacement of benthic habitat to only low tides.

NPS also considered several dredging alternatives during the development of the proposed project. These alternatives included equipment options as well as changes to the scope and extent of clean-up operations supported by mechanical dredging. NPS considered the following dredge equipment options: (1) a suction dredge; and (2) a standard "clamshell" type dredge. In addition, NPS also considered the use of more extensive dredging for areas of low debris accumulation, as well as deeper dredging to allow for the capture and removal of debris and material that may be present below the sediment surface.

The use of a suction dredge was rejected due to concerns regarding adverse environmental impacts associated with the fragmentation and dispersal of invasive biofouling organisms (including *Didemnum vexillum*) that are present on much of the accumulated debris targeted for removal. As described in greater detail in the section on Marine Resources below, invertebrate fouling organisms such as *Didemnum vexillum* are capable of reproducing and spreading through fragmentation of existing colonies. Because the operation of a suction dredge includes the separation of captured water and sediment onboard the dredge vessel so that captured water can be diverted back into the environment, and because there would be a high likelihood that such water would contain a significant number of reproductively viable fragments of invasive fouling organisms such as *Didemnum vexillum*, this type of operation may facilitate the spread and dispersal of invasive species. As such, this alternative would not be less environmentally damaging than the proposed limited use of shallow bucket dredging techniques that would allow for debris and material colonized by invasive fouling organisms to be removed without fragmenting and dispersing these organisms.

NPS also considered the use of a standard "clamshell" or grab type dredge. These types of dredges are typically lowered vertically over the target substrate to grab and extract large chunks of material. Such dredges are commonly used when the objective of the dredging operation is to efficiently remove sediment for purposes of increasing water depth. While this type of dredge would also be capable of removing debris from the sediment surface, it would also be likely to capture a substantial amount of non-target sediment and unintentionally increase water depths. Because one of the primary goals of NPS' restoration efforts in Drakes Estero is to increase the amount of habitat available for eelgrass, increasing water depths and potentially exceeding the optimal growing elevation of eelgrass, would not be a successful restoration outcome. Because of these potential adverse impacts to eelgrass habitat, NPS therefore rejected the use of a clamshell or grab type dredge as a less environmentally damaging alternative in favor of the proposed use of shallower, more targeted, bucket or scoop type dredge techniques.

NPS also considered alternatives to the proposed extent and scope of dredging operations. In its project, NPS proposes to limit the use of dredging to an approximately 1.5 acre area below racks

that contains the densest concentration of debris and to limit the depth of dredging to only the top several inches needed to capture material present on the surface of the seabed. While the use of dredging techniques within the entire 7 acre area below the 95 existing rack structures would result in the removal of more aquaculture material and debris, some of these areas – primarily those with low concentrations of debris below collapsed racks or racks that were used infrequently – support eelgrass that would be removed by the use of dredging. NPS therefore rejected a more extensive use of dredging as a debris removal technique because it would not be less environmentally damaging than the proposed dredging operations that would be limited to only those areas with dense accumulations of debris and material that do not currently support eelgrass.

The Commission agrees with the NPS's alternatives analyses and finds that there are no feasible less environmentally damaging alternatives to the proposed use of dredging, anchors and installation and use of a temporary dock. The Commission therefore finds that the second test of Coastal Act Section 30233(a) has been met.

Mitigation

The final requirement of Coastal Act Section 30233(a) is that dredging and filling of coastal waters may be permitted if feasible mitigation measures have been provided to minimize any adverse environmental effects associated with that dredging and fill. In the following section of this report, the Commission has identified feasible mitigation measures that will minimize the adverse environmental effects associated with dredging and the placement of fill. For example, the discussion below on the adverse impacts to eelgrass associated with the proposed dock system describes measures to minimize those impacts, including the provision in **Condition 1** that NPS develop and submit for review and approval an Eelgrass Mitigation and Monitoring Plan that ensures that adequate measures are taken to quantify the actual project impacts to eelgrass and document that these impacts have been successfully mitigated. Only with the inclusion of this condition, and assuming the NPS agrees to modify the project to implement it, would the Commission be able to find that the third test of Coastal Act Section 30233(a) has been met and that the proposed project, as conditioned, would therefore be consistent with Coastal Act Section 30233(a).

E. MARINE 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.*

Through the disassembly, extraction, and removal of abandoned shellfish aquaculture structures, material, and debris from Drakes Estero, the proposed restoration of Drakes Estero has the potential to result in adverse impacts to marine resources and marine biological productivity. Such impacts would primarily result from the expected loss of up to 0.59 acres of eelgrass throughout the estero due to the placement and use of a 3,200 square foot temporary dock system and removal of 95 wooden rack structures from within and adjacent to eelgrass beds. Additional impacts to marine resources may result from disturbance to marine wildlife, the dispersal of invasive biofouling organisms, and the disturbance and dredging of benthic habitat.

Eelgrass

Drakes Estero supports near continuous beds of eelgrass (*Zostera marina*) throughout its lower intertidal and subtidal reaches. Moderate to dense eelgrass beds grow to the perimeter of nearly all of the 95 rack structures that NPS proposes to remove, and low density eelgrass extends below many of the collapsed racks and racks that appear to have been used only infrequently. In order to determine the potential impacts to eelgrass associated with the removal of these rack structures, NPS carried out an extensive survey of the racks and the eelgrass growing adjacent to or in close proximity to rack lumber placed on and in the seabed. The result of this survey and impact assessment is provided in the following section of the NPS consistency determination:

> *The Drakes Estero Restoration Project will have some short-term impacts on eelgrass and seabed habitats. To quantify these impacts (and for project planning), NPS staff collated and collected data consisting of rack locations and conditions, aerial imagery, a sediment map, eelgrass maps, high definition underwater video, site visits to sandbars at low tide, and visual snorkel surveys or racks and rack footprints. This information was used to quantify the area of rack posts and deadmen in eelgrass and the area of debris (shell, plastic, etc.) that lies on the seafloor and is a candidate for removal or treatment.*
>
> *The NPS initiated an aerial flight of Drakes Estero at a low tide, collected extensive underwater video from snorkeling and alongside the boat, and visited many of the active growing beds on sand bars throughout Drakes Estero. The NPS has also relied on information regarding rack condition, status and use provided by DBOC between 2010 and 2014, as well as sediment type information derived from Anima 1990. NPS has relied on a 30cm aerial image from 2009, a 10 cm aerial image from January of 2015, NPS conducted side-boat video surveys on 59 racks, and reviewed other video on an additional 12 racks [71 of 95 (75%) total racks] to make assumptions used to derive information presented in this impact analysis. Analysis of these various sources has been used to compile and assess information that contributes to our understanding of the rack removal activities as well as the potential impacts associated with this work.*
>
> …

Eelgrass is limited to absent within the footprint of at least the 54 racks that were actively used through the fall of 2014. For racks that have long been collapsed (e.g. classified as in poor condition by DBOC in 2010), it is typical that there is eelgrass growing within the footprint of the rack. In many cases, just outside the rack footprint, eelgrass coverage is moderate to dense. Similarly, with respect to debris accumulation, we have found that in areas of moderate to heavy shell accumulation, eelgrass is not present, but in areas of low shell accumulation, we have observed some eelgrass growing between debris and/or shell.

Our calculations for eelgrass are based on the following information. For 71 racks, NPS staff reviewed and identified the number of bents where eelgrass was present around the base of the posts, over buried cross-members, or outside the footprint but within the 1-foot overlap area of the buried cross-member. Based on our assessment, we estimate that approximately 41 percent (2,719 of 6,702) vertical posts are located in areas where eelgrass is present. As presented in Table 1, removal of these posts will affect approximately 8,713 SF (0.20 acres) of subtidal land, and has the potential to affect approximately 3,572 SF (0.08 acres) of eelgrass.

It is estimated that there are 839 cross-members that are present in areas where eelgrass is present, and would likely result in impacts to eelgrass when the cross-member is pulled out with the bent. In the case where the cross-member is exposed, we have not assumed impacts to eelgrass from the removal of the cross-member. As presented in Table 1, removal of these bottom-cross-members will affect approximately 30,072 SF (0.69 acres) of subtidal land, and has the potential to affect approximately 12,726 SF (0.29 acres) acres of eelgrass. A single cut of the bottom cross-member between each vertical post using the hand-held reciprocating saw could also reduce the direct impact of cross-beam removal associated with eelgrass. Any reductions to the 1 SF/linear foot estimate could result in substantial reduction of the estimated 0.29 acres of eelgrass impact associated with the bottom cross-member removal.

Approximately 30% of the intact racks have some collapsed stringer sections associated with them. The total estimated area of the lumber associated with these collapsed stringers is 11,928 SF (0.27 acres) with approximately 6,232 SF (0.14 acres) of collapsed stringers planned for removal within established eelgrass habitat.

Overall, removal of 7.07 acres of oyster racks from Drakes Estero will affect approximately 51,000 SF (1.17 acres) of the subtidal land and 22,530 SF (0.52 acres) of eelgrass present within the footprint of the racks.

In addition to the impacts to eelgrass resulting from the removal of the rack structures, the proposed installation and use of a temporary dock system connecting the onshore operations area to the deepwater channel would also result in loss of eelgrass. As described by NPS:

The temporary dock would result in temporary impacts through shading and limited settling at low tide over a 3,000 square foot area. Placement of temporary dock anchors to secure the dock will result in temporary impacts to an additional 200 square feet (assumes 10 square feet/anchor). The NPS has documented intermittent eelgrass beds in some areas

within the footprint of the floating dock. As part of the site survey, the actual area of eelgrass can be determined but based on site visits is currently estimated at 50% of the total dock impact area, but for the purposes of this analysis, the entire 3,200 SF area is anticipated to impact eelgrass habitat.

Combining the expected impacts to eelgrass resulting from both rack removal and dock installation yields a total anticipated impact to eelgrass of 0.59 acres (0.52 acres around the rack structures and 0.07 acres at the dock site). Although the impacts resulting from the presence of the dock system would be in one contiguous area, the impacts to eelgrass from rack removal activities would be spread throughout the 95 individual rack removal sites. To address the loss of eelgrass that would occur in these areas, either as a result of shading below the dock, or physical removal as eelgrass occupied sediment is unearthed along with buried rack timbers, NPS proposes to monitor the natural recovery and recruitment of eelgrass into those restoration areas from which physical structures in eelgrass habitat would be removed. In total, NPS estimates that the removal of structures, debris, and aquaculture material from eelgrass habitat will allow existing eelgrass beds in Drakes Estero to expand by up to 2.8 acres, as described in the following excerpt from its consistency determination:

Overall, the NPS has calculated that within the 7.07 acre area of the racks, there are 2.9 acres that currently include some level of eelgrass growth, whether underneath collapsed racks or right at the edges of in-tact structures. It is anticipated that removal of the oyster racks will create approximately 1.8 acres of eelgrass habitat and removal of aquacultural debris will enhance an additional 1 acre of habitat. As described in the project description, the NPS is evaluating the potential impact/benefit of the proposed in-situ treatments. As a result, the NPS proposes to implement in-situ treatment of accumulated shell on approximately 0.5 acres and to conduct experimental monitoring to determine effectiveness of this type of treatment.

Estimates from field reconnaissance surveys indicate that the rack removal and temporary dock installation will result in temporary impacts to approximately 0.59 acres of eelgrass. The restoration project, including complete removal of oyster racks and accumulated aquaculture debris (tubes, strings, and bags), will provide 4.5:1 eelgrass benefit. The sandbar treatment areas identified as part of the project are not within, and therefore are not anticipated to impact eelgrass habitat or the impact calculation ratios presented above. Overall, for the purposes of planning, the removal activities would far exceed the eelgrass mitigation threshold of >1.2:1 and therefore no eelgrass mitigation is proposed.

To ensure that at least this standard eelgrass mitigation ratio[1] of 1.2:1 is met, NPS is developing an Eelgrass Monitoring and Restoration Plan that will include a post-project eelgrass impact assessment (in order to quantify actual project impacts to eelgrass) and monitoring of eelgrass colonization into newly opened eelgrass habitat (to determine how much of the expected 2.8

[1] This mitigation ratio is established in the National Marine Fisheries Service's California Eelgrass Management Policy and has been used frequently by Commission. This ratio includes a 20% increase in eelgrass restoration over impact area to mitigate for the temporal loss of eelgrass between when the impact occurred and when the restoration milestones are achieved.

acres of new eelgrass habitat supports eelgrass after one year). The plan would also include contingency measures to ensure that project impacts to eelgrass are mitigated at a ratio of no less than 1.2:1 (restoration:impact). As required in **Condition 1**, this plan would be submitted for Executive Director review and approval prior to the initiation of offshore project activities.

Benthic Habitat

The proposed project would involve the placement of a temporary dock structure and anchoring devices, as well as limited shallow dredging within subtidal areas of Drakes Estero. Drakes Estero is a shallow (typically less than 20 feet deep) intertidal estuary located in the lee of Point Reyes. Studies carried out in the estero indicate the presence of robust populations of infaunal and epifaunal organisms, primarily among those species typically found in close association with eelgrass beds. Sediment in the estero ranges from sand to mud, with a higher mix of sand closer to the open ocean mouth of the estero.

Several aspects of the proposed project have the potential to affect benthic habitat in Drakes Estero. These include the placement of the proposed anchoring devices for project barges, the shallow dredging of areas of high debris accumulation, the extraction of buried and partially buried debris and materials (from both intertidal sandbars and subtidal rack areas), and the placement of the proposed dock system.

Anchoring, Dock System, and Shallow Dredging of Concentrated Debris Areas

Placement of anchoring devices on the seafloor would result in loss and disturbance of seafloor habitat and displacement of epifaunal and infaunal organisms from within the footprint of each anchor. Although NPS was unable to provide an accurate estimate of the number of anchoring sites that would be used throughout the project – due primarily to the large number of work sites and variable size and configuration of these sites – it developed an anchoring plan that establishes guidelines to be used for anchoring during project operations. These guidelines require project operators to, whenever possible: (1) make use of existing rack structures as moorings; (2) make use of narrow mooring posts with a small benthic footprint for barge stabilization; and (3) place anchors within the disturbed footprint of racks that do not support eelgrass. In addition, the anchoring guidelines prohibit the use of anchor chains within eelgrass and require that anchor deployment be carried out where the bottom is visible in order to ensure that anchors are not placed in eelgrass. These measures would both minimize the amount of anchoring and mooring material required to meet the project needs and limit the impacts associated with the use of this material.

Nevertheless, some adverse impacts to infaunal and epifaunal invertebrate species such as crabs, sea hares, polychaeate worms, and similar species would occur if these organisms are present within an anchoring footprint at the time of anchor installation. Similar impacts would also occur to organisms within the 1.5 acre area in which shallow dredging is proposed, the 3,200 square foot footprint of the proposed dock structure, and the numerous small areas from which sediment would be disturbed and unearthed as buried and partially buried materials and debris would be extracted. However, the total soft-bottom habitat area to be disturbed by the proposed project would be small and locally insignificant when compared to the extent of subtidal soft-substrate habitat within Drakes Estero. In addition, many of the soft substrate organisms that could be present in anchoring, dock, dredge, or debris removal areas are mobile and would re-

colonize and recover quickly after the initial installation of the proposed anchoring units and dock and cessation of dredging. Further, the removal of debris material from the estero, especially wood, metal, and plastic material that is foreign to this environment, would provide habitat benefits, enhance biological productivity, and reduce the potential for ongoing adverse impacts to marine wildlife associated with debris entanglement and ingestion.

Marine Wildlife

Drakes Estero supports a locally and regionally significant population of harbor seals and is considered to be a key breeding site for this species in California. To ensure that adverse impacts to these marine mammals are avoided and minimized, NPS has proposed to carry out all offshore project activities outside of the sensitive breeding season. In addition, NPS has developed and will require its contractors to implement and adhere to a variety of precautionary measures. In addition to the avoidance of the breeding season, these include (1) a requirement that a distance of at least 100 yards be maintained between seals and project personnel and vessels; (2) a requirement that work be delayed if a seal is hauled out within 100 yards of a potential work area until the seal has left; (3) the use of low vessel speeds (below 10 knots) at all times; and (4) the use of shore-based observers during low tides when removal operations are in the lower part of the estero where seal use of intertidal sandbars is most common. These observers would monitor the area for hauled out seals and contact work crew leaders to alter operations to another location until the tide has risen and seals have left. In addition, the majority of project activities – the removal of rack structures – would be carried out in subtidal areas located in portions of the estero far from those consistently used by seals. Further, no project activities would be carried out within the Commission designated Harbor Seal Protection Area in the lower estero (established as part of Commission Cease and Desist Order CCC-07-CD-11).

Invasive Biofouling Species

Shellfish farms and other artificial structures in marine environments provide a three dimensional habitat for colonization by fouling organisms and associated biota (McKindsey et al. 2006; Costa- Pierce and Bridger 2002). Compared to rocky or soft-substrate benthic habitats, these structures can provide a much larger surface area available for the attachment of biofouling organisms (Keeley et al. 2009). A variety of studies indicate that the dominant organisms on submerged artificial structures include algae and attached filter-feeding invertebrates such as sea squirts (also known as tunicates), bryozoans and mussels (Hughes et al. 2005; Braithwaite et al. 2007). These assemblages typically have a range of other non-sessile animals associated with them, such as polychaete worms and various small crustaceans. Based on overseas research, the assemblages that develop on artificial structures can be quite different from those in adjacent rocky areas (Glasby 1999; Connell 2000). This effect can be even more pronounced in areas such as Drakes Estero that lack significant areas of naturally occurring hard substrate.

Based on surveys carried out on the submerged aquaculture structures, materials, and debris within Drakes Estero by various researchers in recent years, including Commission staff, a variety of invasive marine species are present at these sites, including several species such as *Didemnum vexillum* that are known to present a significant economic and ecological risk to marine areas along the west coast. 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. Although several of these species, namely the colonial tunicates *Didemnum vexillum* and several species in the genus *Botrylloides*, have also been observed growing on eelgrass in Drakes Estero in areas near aquaculture equipment, NPS anticipates that the proposed extraction and removal of abandoned aquaculture structures, materials, and debris from Drakes Estero – presumably the preferred habitat of these organisms – will significantly reduce or potentially eliminate their presence. However, proposed extraction and removal of in-water structures that are colonized with fouling organisms has the potential to result in increased dispersal and propagation opportunities for these organisms. Such opportunities for dispersion and spread pose a particular risk with some algal species and colonial 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.

To address the potential risk that proposed extraction and removal activities would have with regard to the spread and dispersion of invasive marine species, NPS is adopting several invasive species management protocols. These protocols include requirements that: (1) NPS contractors not intentionally dispose of any equipment or waste, including living or dead shellfish, shells, or non-native fouling organisms, into the marine environment; (2) all materials removed from Drakes Estero be disposed at certified waste disposal facilities; (3) prohibit the scraping or rubbing of lumber or debris during removal to minimize the dislodging or fragmenting of fouling organisms; (4) limit the agitation of debris, materials, and structures with fouling organisms to the extent possible; (5) hand labor be used as much as possible to delicately extract and remove materials colonized with fouling organisms.

Marine Protected Area/Marine Wilderness

The significant and unique ecological value of Drakes Estero has been confirmed through both federal and state special area designations over the years. On August 5, 2009, the California Fish and Game Commission unanimously adopted 22 marine protected areas along the north-central coast of California, including the Drakes Estero State Marine Conservation Area. Many years prior to this designation, the waters of Drakes Estero were designated by Congress as potential wilderness by the 1976 Point Reyes Wilderness Act (Public Law 94-544).

Section 30230 of the Coastal Act requires, in part, that special protection be given to areas and species of special biological significance. Given the recognition of this area by Congress and the collaborative stakeholder process and detailed scientific evaluation that informed the designation of the Drakes Estero State Marine Conservation Area, Drakes Estero is considered to support areas and species of special biological significance. The Commission must therefore find that the proposed project provides this area with special protection. Although the proposed project would result in temporary adverse impacts to marine resources and biological productivity in Drakes Estero, as detailed above, given (1) the mitigation for the most significant of these impacts (those to eelgrass) provided through **Condition 1**; (2) the expected minimal and temporary nature of the other adverse impacts (such as those to benthic habitats); and (3) the significant restoration and enhancement of Drakes Estero that would result from the successful conduct of the project, and which would more than offset the temporary adverse effects, it would clearly provide this area with special protection.

Conclusion
With the inclusion of **Condition 1** described above, and assuming the NPS agrees to modify the project to implement it, the Commission would be able to find that the proposed project, as conditioned, would be consistent with Coastal Act Sections 30230 and 30231.

F. ACCESS AND RECREATION

Section 30210 of the Coastal Act states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Section 30211 of the Coastal Act states:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30220 of the Coastal Act states:

> *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

Water-oriented recreation activities in and around the project area include kayaking, canoeing, wildlife viewing, and clamming. The proposed project has the potential to adversely affect coastal access and recreation during the estimated five month project period by restricting water-oriented recreational activities from occurring within the footprint of active project operations due to safety concerns and the presence of barges and vessels.

Preclusion of Recreational Activity
The proposed project would include over 95 distinct work sites throughout the upper reaches of the approximately 1700 acre Drakes Estero. However, NPS does not propose to prohibit the continued recreational use of Drakes Estero during the estimated five month project period. Work in the estero would be limited to only a small number of distinct sites per day, and while a limited safety area around these sites would be used to ensure that recreational users of the estero do not interfere with project operations or endanger their safety, the remainder of the estero would remain available for recreational use. Any safety zones that are established would be temporary (in place only during active operations in that area) and would not be oriented in such a way as to preclude safe access to areas of the estero beyond their extent.

Onshore public parking areas and access to and from these areas would remain available and would not be limited or closed during project operations. Onshore operations would be fully contained within the area formerly used by Drakes Bay Oyster Company for shellfish processing and would remain outside of the public parking lot, restroom facility, and kayak and canoe launch site.

Conclusion
With the NPS' commitment to allow for the continued recreational use of Drakes Estero during project operations, the Commission finds that the proposed project would be consistent with Coastal Act Sections 30210, 30211, and 30220.

G. OIL SPILLS

Section 30232 of the Coastal Act states:

> *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

The proposed project includes the operation of a variety of barges, small motorized vessels, and mechanical equipment and machinery in Drakes Estero and could potentially increase the chance of a vessel collision, leak, or failure that could result in the release of fuel oil into marine waters. In addition, proposed removal and restoration activities would also require the use of hydraulically powered equipment that could fail and discharge oils and hydraulic fluids into marine waters.

The first test of Coastal Act Section 30232 requires an applicant to "protect against the spillage of crude oil, gas, petroleum products, or hazardous substances..." In this case, NPS has incorporated into its project a number of measures that reduce the risk of an oil spill. To avoid the potential for a vessel collision, NPS has established a vessel route to be used by work vessels between the work sites and the onshore operations center. In addition, NPS will be requiring its contractors to develop and submit for NPS review and approval, a Spill Prevention and Response plan that includes measures to minimize the likelihood of a hazardous material spill. Such measures include the use of vegetable based hydraulic fluid in project equipment in place of more hazardous fluids; a requirement for contractors to be trained in spill prevention and response techniques prior to commencement of work; inspection of all boats and hydraulically powered equipment each day for leaks or potential spill hazards prior to use; and a requirement that each vessel carrying fuel or hydraulics maintain appropriate spill response equipment on board. NPS would work directly with Commission staff during its review and approval of these Spill Prevention and Response plans to ensure they are robust and comprehensive. The Commission therefore finds that NPS would be undertaking appropriate measures to prevent a spill from occurring and therefore the project is consistent with the first test of Coastal Act Section 30232.

Notwithstanding implementation of the above-described prevention measures, accidental spills can and do occur. The second test of Section 30232 requires that effective containment and cleanup facilities and procedures be provided for accidental spills that do occur. To meet this test the Commission typically requires an applicant to submit an oil spill contingency plan that demonstrates that the applicant has sufficient oil spill response equipment and trained personnel to contain and recover a reasonable worst case oil spill, and to restore the coastal and marine resources at risk from a potential oil spill.

While an oil spill contingency plan was not submitted for Commission staff review as part of NPS' consistency certification, NPS will be requiring its contractors to develop and submit for NPS review and approval, a Spill Prevention and Response plan. NPS has committed to work directly with Commission staff during its review and approval of these Spill Prevention and Response plans to ensure they are robust and comprehensive and that they contain appropriate oil spill contingency provisions.

With the fulfillment of this commitment and implementation of the resulting Spill Prevention and Response Plans, the Commission finds that NPS would be undertaking appropriate measures to effectively contain and respond to accidental spills that may occur and therefore the project is consistent with the second test of Coastal Act Section 30232.

Appendix A - Substantive File Documents

National Park Service, 2015. Consistency Determination number CD-00001-15 and associated file.

National Park Service, 2012. Final Environmental Impact Statement – Drakes Bay Oyster Company Special Use Permit.

Costa-Pierce BA, Bridger CJ 2002. The role of marine aquaculture facilities as habitats and ecosystems. In: Stickney RR, McVay JP eds. Responsible Marine Aquaculture. CAP International Press, New York. Pp. 105-144.

McKindsey CW, Anderson MR, Barnes P, Courtenay S, Landry T, Skinner M 2006. Effects of shellfish aquaculture on fish habitat. Canadian Science Advisory Secretariat Research Document 2006/011. Fisheries and Oceans, Canada. 84p.

Keeley N, Forrest B, Hopkins G, Gillespie P, Clement D, et al. (2009) Sustainable Aquaculture in New Zealand: Review of the ecological effects of farming shellfish and other non-finfish species. Ministry of Fisheries, Cawthron Report No. 1476, 150 pages plus appendices.

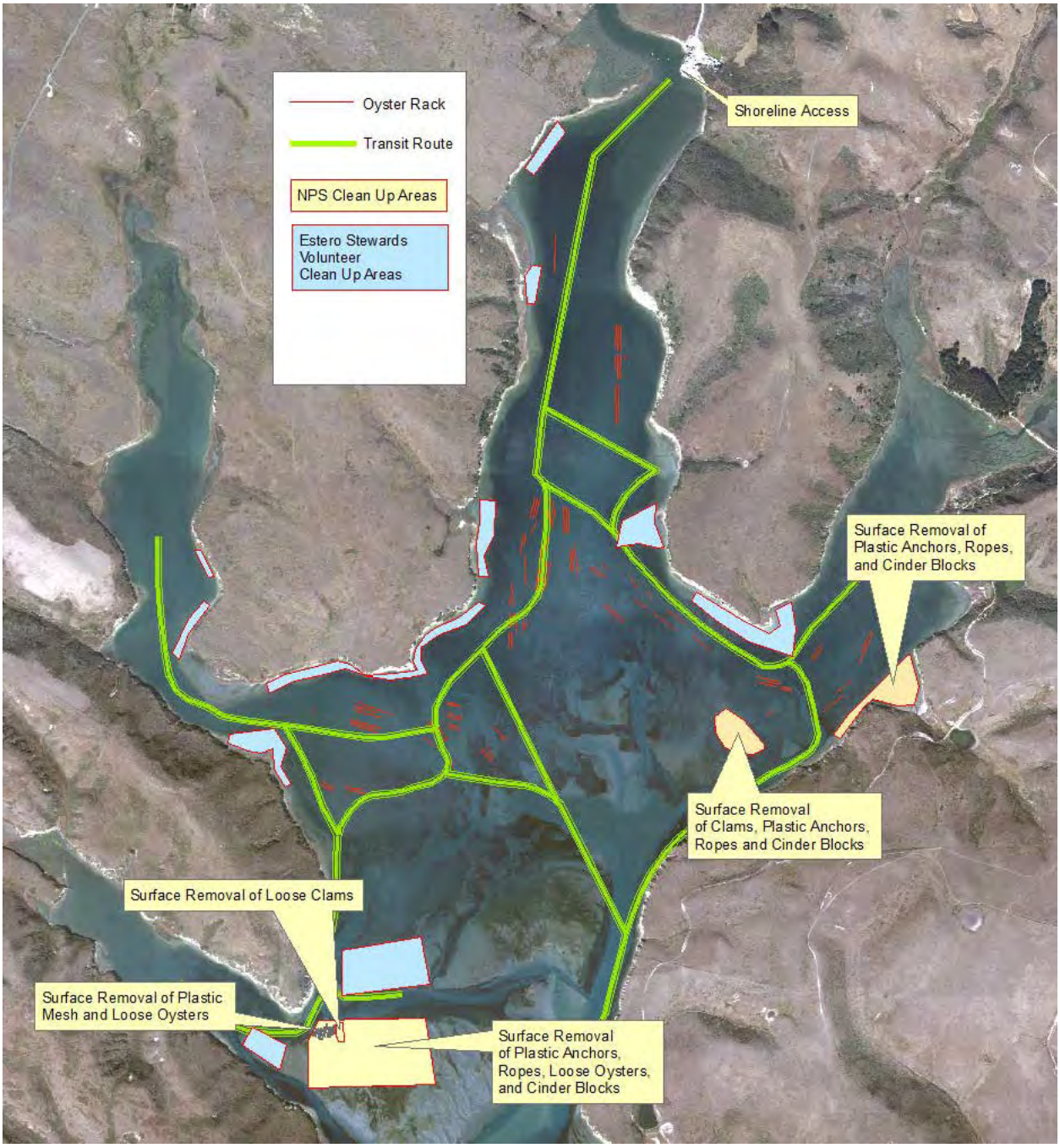
Hughes DJ, Cook EJ, Sayer MDJ 2005. Biofiltration and biofouling on artificial structures in Europe: the potential for mitigating organic impacts. Oceanography and Marine Biology: an Annual Review 43:123-172.

Braithwaite RA, Cadavid Carrascosa MC, McEvoy LA 2007. Biofouling of salmon cage netting and the efficacy of a typical copper-based antifoulant. Aquaculture 262: 219- 226.

Glasby TM 1999. Differences between subtidal epibiota on pier pilings and rocky reefs at marinas in Sydney, Australia. Estuarine, Coastal and Shelf Science 48: 281-290.

Connell SD 2000. Floating Pontoons Create Novel Habitats for Subtidal Epibiota. Journal of Experimental Marine Biology and Ecology 247: 183-194.

Exhibit 1 – Project Location


Oyster Rack
Transit Route
NPS Clean Up Areas
Estero Stewards Volunteer Clean Up Areas
Shoreline Access
Surface Removal of Plastic Anchors, Ropes, and Cinder Blocks
Surface Removal of Clams, Plastic Anchors, Ropes and Cinder Blocks
Surface Removal of Loose Clams
Surface Removal of Plastic Mesh and Loose Oysters
Surface Removal of Plastic Anchors, Ropes, Loose Oysters, and Cinder Blocks