

# STATE OF ALASKA

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VIA Email to: [fmpbiop@noaa.gov](mailto:fmpbiop@noaa.gov)

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Attn: Ellen Sebastian  
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**Re: Comments on Draft August 2010 Biological Opinion for Bering Sea and Aleutian Islands and Gulf of Alaska Groundfish Fisheries**

Dear Dr. Balsiger:

The State of Alaska, based on input from the Alaska Department of Fish and Game and Alaska Department of Law, submits these comments in response to the National Marine Fisheries Service's ("NMFS") request for public comment on the August 2, 2010 Draft Biological Opinion for the Bering Sea and Aleutian Islands ("BSAI") and Gulf of Alaska ("GOA") groundfish fisheries ("Draft BiOp") and accompanying draft Environmental Assessment and Regulatory Impact Review ("EA/RIR").

The Steller sea lion population for the western Distinct Population Segment ("DPS") has increased over the last 10 years and is trending toward recovery goals. Given this and other available and relevant information as detailed below, the Draft BiOp's jeopardy and adverse modification determinations are inconsistent with (i) NMFS' obligation to adequately consider all necessary relevant factors; (ii) NMFS' obligation to make a rational connection between the facts found and the choices made and conclusions reached in the BiOp; and (iii) the Endangered Species Act ("ESA") Section 7 standards for consideration of the best scientific and commercial data available. The proposed Reasonable and Prudent Alternative ("RPA") is similarly unsupported by the information presented by and available to NMFS. NMFS should consider less restrictive measures that will meet NMFS' conservation goals for the Steller sea lion. Further, the draft EA/RIR prepared to address the impacts of the proposed RPA under the National Environmental Policy Act ("NEPA") is incomplete and therefore deprives the public of a meaningful opportunity to comment, does not consider a reasonable range of alternatives, and

given the significance of potential impacts to the communities in the western Aleutian Islands, requires the preparation of an Environmental Impact Statement (“EIS”).

The State requests that NMFS reconsider the relevant information, including the best scientific and commercial data available; follow the required ESA, NEPA, and other applicable procedures; and find, consistent with the status of the western DPS of Steller sea lions as a whole, that continued management of groundfish fisheries will not cause jeopardy to the species or destroy or adversely modify its designated critical habitat. In the alternative, a less restrictive and more narrowly tailored RPA should be implemented that is protective of the Steller sea lion and its critical habitat but would avoid unnecessary impacts to local economies in the Aleutian Islands. Finally, the State requests that NMFS recirculate a new Draft BiOp and accompanying NEPA document with adequate time for meaningful public review and comment before implementing changes to existing fisheries management policies. Please consider and include these comments in the administrative record for NMFS’ Section 7 consultation and NEPA processes on the proposed changes to the groundfish fisheries management.

**State of Alaska Comments**

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## **I. Introduction**

Alaska is a sovereign state, and has an interest in the management, conservation, and regulation of all fish, wildlife, and other natural resources within its jurisdiction, including state fisheries and the Steller sea lion and its habitat. Alaska Const. Art. VIII, §§ 1, 2, 4; Alaska Stat. § 16.05.020. As a steward of its fish and wildlife resources, Alaska directly manages fish, wildlife, and habitat through its Departments of Fish and Game, Natural Resources, and Environmental Conservation.

Alaska's legal title and regulatory interests in its natural resources extend not only to its land area, but also to the State's offshore submerged lands and waters, up to three nautical miles from the coastline. *See* 43 U.S.C. §§ 1301, 1311; *see also Alaska v. United States*, 545 U.S. 75, 79 (2005) (as a general matter, Alaska is entitled to submerged lands beneath territorial waters extending three nautical miles seaward of its coastline). Thus, Alaska's sovereign interests in its fish and wildlife resources and its management of those resources extends to coastal areas, including much of the range of the western DPS of Steller sea lions and their designated critical habitat. This regulatory jurisdiction includes fishery regulation that would be significantly affected by NMFS' decision to close and restrict parallel federal fisheries in the Western Aleutian Islands. Thus, Alaska has a vested interest in both Steller sea lions and the management of state fisheries that provides for both conservation of Steller sea lions and the sustained use of fishery resources to provide the maximum benefit for the people of the State.

The State manages fisheries within state waters (0-3 miles seaward from the State's coastline). Within these waters there are two types of fisheries: sole-state managed fisheries and so-called parallel fisheries. Fisheries that are solely managed by the State do not have a federal nexus and as such are not the focus of this BiOp and are not part of the identified RPAs. They are regulated under the authority of the Alaska Board of Fisheries and managed by the Alaska Department of Fish and Game. In the BiOp they are considered part of the "environmental baseline" and thus not included in the recommended RPA. We concur with and support this approach. While not directly impacted by the recommended RPA, these fisheries are subject to indirect impacts such as possible loss of processor capacity and loss of other infrastructure due to impacts to fisheries regulated under the RPA. The EA/RIR should assess these impacts.

The State parallel fisheries are those fisheries that occur within state waters but that have a federal nexus (e.g., parallel fishery harvests count against the federal total allowable catch (TAC)). The state maintains control of these fisheries through the Alaska Board of Fisheries. The Board has granted the Alaska Department of Fish and Game the authority to mirror federal regulations in these parallel fisheries. Because of the federal nexus the State requested that these parallel fisheries be included in the development of the BiOp. As such, these fisheries are subject to both direct and indirect impacts from the identified RPA. The EA/RIR should assess these impacts.

## **II. Effect of Proposed RPAs on the State of Alaska**

The NMFS' Draft BiOp and proposed RPA would have real and severe consequences for Alaskans, their communities, the commercial fishing fleet, and the seafood processing industry. NMFS admits that implementation of the RPA would cause losses in the federal fishery of up to \$66 million per year. Draft EA/RIR, at 10-88. Similarly, the State's Aleutian Island Pacific Cod Fishery would be affected by the associated loss of infrastructure. While NMFS predicts that some of these losses will be offset as the industry redeploys fishing vessels to other fishing areas, the communities in the western Aleutians that rely on local fishing are not mobile and will inevitably be affected by fishery closures and restrictions in adjacent waters. NMFS also fails to estimate the number of actual jobs that will be lost, which may be substantial given that 700 to 900 people are employed by the three federal fisheries fleets in the area. The overall impact of implementing the RPA would be devastating to the small communities and residents in the Aleutian Islands that depend on the fisheries for their livelihoods.

NMFS' failure to adequately analyze these impacts is particularly troublesome in this case given the complexity and controversy over the status of the western DPS of Steller sea lion. Research demonstrates that Steller sea lion populations have increased as a whole in the last decade. While populations in some sub-regions have been slower to respond, there is little or no existing information (as discussed throughout this comment letter) that nutritional stress, and annual harvests of Pacific cod and Atka mackerel in particular, are the cause of slower than desired recovery. Most importantly, there is insufficient documenting support that NMFS' proposed RPA will reverse the existing trend for outlier Steller sea lion populations. Given the uncertainties highlighted throughout the Draft BiOp, NMFS has provided insufficient justification under the ESA and otherwise for implementing new fisheries management measures and regulatory restrictions which are likely to have drastic and long-lasting effects on the communities in the western Aleutian Islands.

## **III. Overview of the State's Comments**

NMFS' Draft BiOp for groundfish fisheries raises a number of concerns for the State. First, in the agency's haste to implement new fisheries restrictions that the available scientific information does not support as either prudent or necessary, NMFS had not met its procedural obligations or policy goals to consult with the State regarding its jeopardy opinion or the proposed RPA, obtain independent peer review, or allow adequate time for meaningful public comment. NMFS has also indicated its intent to implement the proposed RPA by shortcutting the Administrative Procedure Act ("APA") and Magnuson-Stevens Fishery Conservation and Management Act ("MSA") requirements for notice-and-comment rulemaking, although there is no evidence that delaying the proposed RPA to comply with these important procedures would cause harm to Steller sea lions or that "emergency" action is required. By avoiding notice and comment review, NMFS is also sidestepping the requirements of the Regulatory Flexibility Act and its obligation to specifically consider the effects of the RPA on small businesses and governments.

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The BiOp itself is inconsistent with Section 7's jeopardy and adverse modification standards, including:

- NMFS' jeopardy determination is impermissibly based on population declines in only two of seven sub-regions within the western DPS without providing any explanation of the importance of these two sub-regions to the population as a whole and discounting the fact that overall the western DPS population trends demonstrate steadily increasing numbers over the past decade.
- NMFS' adverse modification finding is based solely on impacts to specific areas of "affected habitat" without adequate discussion of whether those effects will cause adverse modification to Steller sea lion critical habitat as a whole.
- NMFS did not apply the best scientific and commercial data available to assess the Steller sea lion's current biological status and the status of fisheries.
- NMFS' proposed RPA is unsupported by the best scientific and commercial data available, which indicates that Steller sea lions in the western and central Aleutian Islands are not experiencing nutritional stress caused by federal fisheries.
- NMFS has similarly not adequately considered the relevant factors and has not made the required rational connection between the facts found and conclusions reached in the BiOp.

Given these inadequacies in the Draft BiOp, the State requests that NMFS reconsider its jeopardy and adverse modification findings in light of the best scientific and commercial data available. At the very least, NMFS should consider a less restrictive, more narrowly tailored RPA that provides similar conservation benefits to Steller sea lions while preserving fishing opportunities in the western and central Aleutians.

Similarly, the EA/RIR accompanying the Draft BiOp fails to meet NEPA standards. It is incomplete and inadequate to meet NEPA's purpose of providing for informed agency decisionmaking and informed public comment. The EA also fails to consider an adequate range of reasonable alternatives and should incorporate a new alternative consistent with the North Pacific Fishery Management Council's ("NPFMC" or "Council") recommendations. Impacts of implementing the proposed RPA to fisheries in the Aleutian Islands may be devastating to local communities and may have significant environmental justice considerations for Alaskan Natives. NEPA requires that these potentially significant effects be considered in an EIS pursuant to appropriate notice-and-comment requirements. The State requests that an EIS be prepared that incorporates a new, more narrowly tailored alternative and that takes a "hard look" at the socioeconomic impacts of proposed fishing restrictions.

#### **IV. Process Concerns**

##### **A. NMFS' Failure to Involve The State in Development of the BiOp and RPA**

The ESA requires NMFS to cooperate with states to the maximum extent practicable in carrying out the programs authorized by the ESA. 16 U.S.C. § 1535(a). *See also* 59 Fed. Reg. 34274 (July 1, 1994) (Notice of Interagency Cooperative Policy Regarding the Role of State Agencies in Endangered Species Act Activities). The ESA Consultation Handbook provides that interested parties, including affected State governments, should be involved in the development of RPAs when NMFS finds that an action will jeopardize the continued existence of a species or destroy or adversely modify its critical habitat. FWS & NMFS, Consultation Handbook, Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act, at 4-6 (Mar. 1988) ("ESA Consultation Handbook").

In this instance, NMFS had not, prior to release of the draft BiOp, informed the State of the jeopardy/adverse modification decision, or specifically requested the State's input in the development of the RPA, which will have a significant impact on local fisheries and economies in the western Aleutian Islands. The State formally learned of NMFS' jeopardy opinion on August 2, when the agency released the Draft BiOp and RPA for a 25-day public comment period. The Alaska Department of Fish and Game, the Alaska Board of Fisheries, and other state agencies have significant expertise in wildlife and fisheries management and should have been consulted before offering an RPA for public comment. That RPA does not take into consideration the best scientific and commercial data available and is not appropriately tailored to meet the ESA's conservation goals while preserving as much of the local fishing economy as possible. Now that the State has had an initial opportunity to review the BiOp and proposed RPA during the public comment period (though under significant time constraints), the State requests that NMFS reconsider its jeopardy and adverse modification opinions in light of the relevant factors and the best scientific and commercial data available, as discussed in these comments. At the very least, the State requests that the RPA be amended consistent with the recommendations of the NPFMC and that NMFS provide the State with an adequate review period of any RPA revisions before they are finalized.

##### **B. Failure To Provide For Independent Peer Review**

NMFS' August 6, 2010 press release for the Draft BiOp indicates that it will use a "direct final rule" to apply the measures in the RPA before the start of the 2011 fishery. NMFS plans to submit the science on which the Draft BiOp is based to the Center for Independent Experts for peer review *after* the BiOp is finalized and the RPA implemented through regulation. If the peer review reveals effects of the action that were not considered by NMFS, the agency plans to reinitiate formal consultation.

NMFS' decision to provide post-hoc peer review is inconsistent with the approach noted in the agency's own 1994 Review Policy, which provides for independent peer review in the listing and

recovery planning processes. 59 Fed. Reg. 34270 (July 1, 1994). While the policy does not apply explicitly to Section 7 consultation decisions, the purpose of the policy—to ensure that biological decisions are based on the best scientific and commercial data available—applies equally to jeopardy and adverse modification decisions in the Section 7 context. Here, given the paucity of data supporting NMFS’ theory that nutritional stress is causing Steller sea lion declines in the western Aleutian Islands and the overall recovery of the western DPS, NMFS should provide for independent peer review *before* it finalizes regulations implementing the proposed RPA.

### **C. Inadequate Timeframe for Review**

The Draft BiOp was released for a mere 25-day public comment period on August 2, 2010. The document itself is over 400 pages with an additional 383 pages of appendices, tables, and figures, and it cites to hundreds of scientific studies and other supporting documents. In addition, the accompanying EA/RIR (which remains incomplete) adds another 233 pages for review. Providing a thorough review and meaningful comments on this complex and lengthy BiOp and EA/RIR in such a short period is difficult at best. On August 18, 2010, Governor Parnell submitted his request for an extension of time until October 12, 2010 to provide more detailed comments. NMFS subsequently provided a brief seven-day extension request, much shorter than the additional time requested by the Governor.

Despite the short timeframe for review, the NPFMC met from August 16-20 at the request of NMFS to review and make recommendations regarding the proposed RPA. The Council had little time prior to its meeting to digest the BiOp or understand the full ramifications of implementing NMFS’ proposed RPA. Indeed, the EA/RIR accompanying the Draft BiOp is incomplete and does not provide sufficient information for a thorough analysis of the impacts of the RPA on local jobs and economies. NMFS has promised to provide a more complete EA/RIR to the Council in October for consideration. Even under these significant constraints, the Council received public comment and was able to consider and recommend changes to the RPA for more targeted fishery restrictions based on the best available science. The Council’s proposed recommendations were made available on August 20, only 14 days before the close of NMFS’ extended public comment period on the Draft BiOp.

The State again requests that additional time be permitted for a more thorough review of the Draft BiOp and EA/RIR. At the very least, NMFS should reopen the public comment period when it completes the EA/RIR and provides it to the Council for review in October. Further, NMFS should not shortcut the APA notice and comment procedures for promulgating the final rule, but allow for a full vetting of all issues before implementing an RPA likely to have severe effects on the State of Alaska and local communities.

**D. NMFS Must Provide An Opportunity for Notice and Comment Before Finalizing Any Rule Implementing the Proposed RPA**

In its August 6, 2010 press release, NMFS proposed to implement the proposed RPA without providing the public with an opportunity to comment on the final proposed measures. NMFS has indicated that it will do so under the authority of Section 305(d) of the MSA and exceptions to the APA's notice and comment requirements. The Draft BiOp and proposed RPA, however, do not warrant the application of exception procedures, and NMFS must offer any proposed rule for public review and comment.

Both the APA and the MSA require the Secretary to give notice of any proposed rulemaking in the Federal Register and to provide an opportunity for public comment. 5 U.S.C. § 553(b); 16 U.S.C. § 1854. The notice-and-comment requirements of the APA do not apply if the agency has "good cause" to believe the process would be "impracticable, unnecessary, or contrary to the public interest." 5 U.S.C. § 553(b)(B). The "good cause exception" to APA notice-and-comment requirements must be construed narrowly. *Natural Res. Def. Council, Inc. v. Evans*, 316 F.3d 904, 911-12 (9th Cir. 2003). "[N]otice and comment procedures should be waived only when 'delay would do real harm.'" *Id.* at 911 (quoting *Haw. Helicopter Operators Ass'n v. Fed. Aviation Admin.*, 51 F.3d 212, 214 (9th Cir. 1995)).

NMFS lacks good cause to shortcut notice and comment procedures here. As these comments demonstrate, the Draft BiOp reflects considerable uncertainty and controversy about whether nutritional stress has caused population declines in the western Aleutian Islands of the Steller sea lion's range and considerable uncertainty even about whether those isolated declines will affect the recovery of the species as a whole. Nor has NMFS stated why it cannot comply with normal notice-and-comment procedures before implementing the proposed measures before the start of the 2011 fishery four months from now. *See Natural Res. Def. Council, Inc. v. Evans*, 316 F.3d at 912 (refusing to apply APA notice and comment exception when two months passed between the finalization of recommended measures and the opening of the fishery). Under these circumstances, NMFS has not identified sufficient harm that would be caused by compliance with the APA's notice-and-comment procedures between now and 2011 such as to excuse compliance with those procedures. Accordingly, NMFS must follow those notice-and-comment procedures here.

Similarly, NMFS has not met the requirements for rulemaking without prior notice and comment under the MSA. The MSA permits the Secretary to promulgate fisheries management measures without notice and comment only "[i]f the Secretary finds that an emergency exists." 16 U.S.C. § 1855(c)(1). According to NMFS guidelines, the exception should be used only in "extremely urgent, special circumstances where substantial harm to or disruption of the resource, fishery, or community would be caused in the time it would take to follow standard rulemaking procedures." 62 Fed. Reg. 44421 (Aug. 21, 1997). As described above, such emergency regulations are unwarranted in circumstances where the supposedly-threatened harm is not supported by science and time is nevertheless sufficient to permit public comment.

NMFS has also failed to provide any basis for use of a “direct final rule” process in this instance, as envisioned in its August 6, 2010 Press Release. As explained by the Administrative Conference of the United States’ recommended “Procedures for Noncontroversial and Expedited Rulemaking,” direct final rulemaking is appropriate only where a rule is noncontroversial and is expected to generate no significant adverse comment, including challenges to the rule’s underlying premise or approach. *See* 60 Fed. Reg. 43108, 43110-12 (Aug. 18, 1995). Thus, where significant adverse comments are received on a direct final rule—as is expected here—NMFS would be required to withdraw the rule and proceed through the normal notice and comment procedures. *Id.*

Even if good cause exists to waive notice-and-comment requirements under the APA and MSA, the MSA includes specific hearing procedures even for rules that do not undergo prior notice and comment. 16 U.S.C. § 1855(c)(1). Emergency regulations under the MSA are limited in duration to 180 days, but can be extended for an additional 186 days if the public has an opportunity to comment on the regulations after they are implemented. 16 U.S.C. § 1855(c)(3)(B); *see also* 50 C.F.R. § 600.310(j)(4)(i). Therefore, even if exceptions to prior notice-and-comment apply, NMFS cannot implement the proposed measures for more than 180 days without considering public comments. NMFS has acknowledged this limitation in prior rules under similar circumstances. *See, e.g.,* 74 Fed. Reg. 20229-30 (May 1, 2009); 71 Fed. Reg. 14416-18 (Mar. 22, 2006); 66 Fed. Reg. 36711-14 (July 13, 2001); 65 Fed. Reg. 60889-91 (Oct. 13, 2000); 56 Fed. Reg. 28112-16 (June 19, 1991).

In sum, NMFS must provide an opportunity for public notice and comment before implementing any proposed RPA. No exception to the APA’s and MSA’s notice-and-comment requirements apply, and therefore NMFS’ failure to follow these procedures would violate these important procedural requirements.

#### **E. NMFS’ Non-Compliance with the Regulatory Flexibility Act**

By issuing new fisheries management measures without notice and comment, NMFS is avoiding its obligation to examine the effect of its rules on the small businesses and governments that are crucial to Alaska’s economy. The Regulatory Flexibility Act requires an agency, concurrent with proposing a new rule, to prepare a Regulatory Flexibility Analysis describing the impact of the proposed rule on small businesses. 5 U.S.C. §§ 603, 604. After receiving public comment, the agency then prepares a final Regulatory Flexibility Analysis to be published with the final rule. The agency is also required to make an extra effort to collect the input of small entities on the impact of the proposed rule by conducting open hearings, directly notifying small entities of the proposed rules, or publishing notice in trade publications. *Id.* § 609. This analysis is an important way for the public to participate and for the agency to consider the negative impacts of the proposed measures on crucial sectors of the economy and determine how they can be avoided or mitigated. Failing to conduct this kind of analysis for measures that will have a significant economic impact on small businesses is a major breach of the agency’s legal responsibilities.

The central Aleutian Islands communities of Atka and Adak could be significantly affected by this action. The Council recognized these communities' dependence on the processing of Pacific cod in their December 2009 Regulatory Impact Review (RIR) that would have established Aleutian Islands Pacific cod processing sideboards. Community representatives from Adak and Atka stated throughout Council consideration of processing sideboards in the Aleutian Islands that processing Pacific cod in high volume is necessary for cod operations to be viable, regardless of whether processing occurs onshore or on a floating processor, and that processing capacity is necessary for long term viability of the community.

The processing sideboard RIR (p. 37) describes efforts of the Aleut Corporation to develop Adak into a "commercial center and civilian community with a private sector" as "focused heavily on commercial fishing." The existing onshore processing facility in Adak has been heavily reliant on Pacific cod processing, with 75% of its revenues coming from the A season Pacific cod fishery supporting a year-round market in the area. Additionally, raw fish tax on Pacific cod was the main source of revenue for the City of Adak. Fuel sales also provide an important revenue stream and support for local fuel requirements. This economic activity is jeopardized if the local fisheries are insufficient to support a market in the area.

Although not as dependant as Adak and Atka on Pacific cod from the area affected by proposed action, other communities in the region, such as Dutch Harbor and Akutan in the Aleutian Islands and King Cove, Sand Point, and Chignik in the Gulf of Alaska benefit from catcher vessel deliveries of Pacific cod from the Aleutian Islands area and the associated economic impacts. *See generally* North Pacific Fishery Management Council, Initial Review Draft Regulatory Impact Review/Environmental Assessment/Initial Regulatory Flexibility Analysis for a Regulatory Amendment to Establish Aleutian Islands Pacific Cod Processing Sideboards. Anchorage, Alaska. December 2009.  
[http://www.fakr.noaa.gov/npfmc/current\\_issues/pcod/AIcodsideboards1209.pdf](http://www.fakr.noaa.gov/npfmc/current_issues/pcod/AIcodsideboards1209.pdf)

## **F. Process Concerns Summary**

Allowing additional time for review will not result in any harm to Steller sea lions or their critical habitat. Numerous measures are already in place for sea lion conservation and protection, which have resulted in slowly, but steadily, increasing numbers of Steller sea lions within the western DPS over the past decade. There is no indication that allowing for necessary public comment and review of the Draft BiOp and any proposed final regulations would irreparably harm Steller sea lions. Indeed, as the Draft BiOp indicates, Steller sea lion concerns are localized in this case to two sub-regions outside core habitat and there is no evidence of any range-wide or population-wide concern about the continued viability of this DPS.

Given the controversial nature of NMFS' interpretation of the existing science, and the drastic impacts to Alaskan fisheries and communities of implementing fishing bans in the western Aleutian Islands, providing an adequate public comment period is both prudent and necessary.

## **V. Draft Groundfish Biological Opinion Substantive Comments**

### **A. Section 7 Consultation Requirements**

If a federal agency determines that an action it proposes to undertake “may affect” a listed species or designated critical habitat, formal consultation with the Service is required. 50 C.F.R. § 402.14(a). The formal consultation process results in a BiOp, which determines whether a proposed action will “jeopardize the continued existence of” a threatened or endangered species, or destroy or adversely modify its designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.02, 402.14(g)(4). ESA regulations state that “jeopardize the continued existence of a species” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02. Thus, an action that is “not likely” to appreciably reduce the survival or recovery of the species does not cause jeopardy. The BiOp must be based upon the “best scientific and commercial data available.” 50 C.F.R. § 402.14(g)(8).

NMFS’ jeopardy opinion, if challenged, will be measured against the APA’s “arbitrary and capricious” standard. 5 U.S.C. § 706(2)(A); *Westlands Water Dist. v. U.S. Dep’t of the Interior*, 376 F.3d 853, 865 (9th Cir. 2004). An agency decision is arbitrary and capricious if the agency “relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The agency must make a “rational connection between the facts found and the choice made.” *Id.* While courts defer to an agency’s technical expertise and experience, “[t]he presumption of agency expertise may be rebutted if its decisions, even though based on scientific expertise, are not reasoned.” *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679 (D.D.C. 1997).

### **B. NMFS’ Jeopardy Opinion is Impermissibly Based on Population Declines in Only Two of Seven Sub-Regions within the Western DPS**

The jeopardy opinion in a BiOp must be based on consideration of the impacts on a species as a whole, not just a sub-population of a species. *See* ESA Consultation Handbook at 4-34, 4-36. The ESA Consultation Handbook provides that “adverse effects on individuals of a species . . . generally do not result in [a] jeopardy . . . determination unless that loss, when added to the environmental baseline, is likely to result in significant adverse effects *throughout the species range.*” *Id.* at 4-34 (emphasis added). Likewise, the Handbook states that “[w]hen an action appreciably impairs or precludes the capability of a recovery unit from providing both the survival and recovery function assigned it, that action may represent jeopardy to the species,” but only where “the action affects not only the recovery unit’s capability, but the relationship of the

recovery unit to both the survival and recovery *of the listed species as a whole.*” *Id.* at 4-36 (emphasis added). Thus, a jeopardy finding must be based on more than just impacts to a sub-population of a species or to certain recovery units of a species; it must be based on jeopardy to the continued existence—the recovery and survival—of the species as a whole or throughout the species range.

The U.S. District Court in Montana recently reaffirmed the requirement to consider the species as a whole in *Rock Creek Alliance v. U.S. Forest Service*, -- F. Supp. 2d --, 2010 WL 1872864 (D. Mont. May 4, 2010). There, the court upheld the Fish and Wildlife Service’s (“FWS”) determination that reduction in the Rock Creek sub-population of bull trout would not result in jeopardy because jeopardy must be determined based on the impact to the Columbia River DPS as a whole, not impact to the Rock Creek sub-population. *Id.* at \*47. The FWS found “the harm to the local bull trout population would not result in jeopardy to the Columbia River distinct population segment because the Rock Creek population is so relatively small that the damage will not register at the core area, management unit, or distinct population segment levels.” *Id.* See also *Defenders of Wildlife v. Salazar*, -- F. Supp. 2d --, 2010 WL 3084194 (D. Mont. Aug. 5, 2010) (holding FWS could not delist sub-populations of the northern Rocky Mountain gray wolf DPS).

A corollary to the requirement that jeopardy be evaluated in the context of effects to the species as a whole is that negative impacts to some portion of a listed species population may be tolerated if the entire species is not put at risk of jeopardy. See *Rock Creek Alliance v. U.S. Forest Service*, 2010 WL 1872864 at \*47. Ultimately, NMFS need not determine that an action improves a species’ chances of recovery to avoid jeopardy; NMFS must only determine those chances are not “appreciably” diminished by the action. *National Wildlife Federation v. National Marine Fisheries Service*, 524 F.3d 917, 930 (9th Cir. 2008) (“Agency action can only ‘jeopardize’ a species existence if that agency action causes some deterioration in the species’ pre-action condition.”). Thus, the jeopardy standard allows some adverse effect on a species as long as the effect does not reach the point that it “appreciably” diminishes the continued existence of the species.

Here, NMFS has based its jeopardy determination on the status of only two of seven Steller sea lions sub-regions in the 2008 Recovery Plan. Though the BiOp makes conclusory statements that the trend in these two sub-regions will be significant to the species as a whole, see Draft BiOp at 345, its conclusions are without adequate scientific basis or record support given the overall indications of steadily increasing populations over the past decade for the western DPS, as discussed below. Further, NMFS fails to provide findings on the relationship of the two declining sub-regions to the species range as a whole that would warrant a jeopardy finding for the entire DPS.

**1. The Jeopardy Opinion is Unsupported Given the Overall DPS Trend  
Toward Achieving Population Recovery Goals**

Recent data on population trends from 2000-2008 indicate that the western DPS of Steller sea lions as a whole, after precipitous declines throughout the 1980s and 1990s, has stabilized and is slightly increasing. Draft BiOp, at xxii, 333. The total population increased an average of 3% per year from 2000 to 2004 and has stabilized between 2004 and 2008 for an overall average population growth of 1.5% per year between 2000 and 2008. *Id.* at 333. “Overall, the western DPS of Steller sea lion has had a statistically significant improvement in the rate of change from the 1990s to the 2000s.” *Id.* at 338. Only one of seven sub-regions has declined at a statistically significant rate over the last decade, while one other sub-region has experienced declines, but not significant ones. *Id.*

The 2008 Recovery Plan for the Steller Sea Lion sets out the following demographic recovery criteria for reclassifying the western DPS from endangered to threatened:

- The population in the U.S. region has increased (statistically significant) for 15 years on average, based on counts of non-pups (i.e., juveniles and adults). Based on an estimated population size of roughly 42,500 animals in 2000 and assuming a consistent but slow (e.g. 1.5%) increasing trend, this would represent approximately 53,100 animals in 2015.
- The trend in non-pups in at least 5 of the 7 sub-regions are consistent with the trend observed under criteria #1. The population trend in any two adjacent sub-regions cannot be declining significantly.

2008 Recovery Plan at V-17. The criteria for delisting are similar, but require greater gains over a longer time period—statistically significant growth rates (3% per year) for 30 years. *Id.* at V-21. Delisting would also require that no two adjacent sub-regions be in significant decline and that no single sub-region have declined by more than 50%. *Id.*

Currently, the western DPS is meeting the criteria for recovery established in the 2008 Recovery Plan. While the overall 1.5% gain in population is not currently statistically significant, the BiOp acknowledges that if population growth continues at this slow, but steady rate, it will reach statistical significance by 2014. Draft BiOp, at 340. This population growth is attributed to significant improvement in pup production in the core of the Stellar sea lion’s former range. *Id.* at 82. Thus, the DPS is on track to meet the first of the demographic recovery criteria. Second, while two of the seven sub-regions have shown declines in the last decade, only one has experienced statistically significant declines. Thus, “the current sub-region trajectories satisfy criterion #2, since no two adjacent sub-regions are declining significantly.” *Id.* at 333.

NMFS concludes in the Draft BiOp that the Steller sea lion is not meeting the recovery goals in the 2008 Recovery Plan solely because the overall population increase is not yet statistically

significant. *Id.* at 333. However, by the numbers, a slow and steady overall population increase of 1.5% a year is on track to meet NMFS' recovery goals for downlisting. *See id.* at 338 (“overall the population is increasing and moving toward the number of animals required for downlisting”). Thus, the BiOp's determination that the species is in jeopardy solely because the Steller sea lion is not meeting recovery goals fails to make the required record-supported rational connection between the facts found and conclusions reached in the BiOp.

Further, even if the western DPS as a whole were falling short of the current recovery goals for downlisting or delisting, the Section 7 jeopardy standard is not the same as the standard which must be met to downlist or delist a species under Section 4. Jeopardy is defined as an action which reduces “appreciably the likelihood of both the survival and recovery of a listed species.” By contrast, the standard for downlisting or delisting is that the species no longer meets the definition of endangered—in danger of extinction throughout all or a significant portion of its range—or threatened—likely to become endangered in the foreseeable future—because the species has recovered to the point that protection under the ESA is no longer required. 50 C.F.R. § 424.11(d)(2). Thus, to avoid jeopardy, NMFS must not determine that an action improves the Steller sea lion's chance of recovery, rather, it must show it does not “appreciably diminish” the chance of recovery.

While the Ninth Circuit has indicated that NMFS may not “simply avoid any consideration of recovery impacts,” NMFS also must guard against “import[ing] ESA's separate recovery planning provisions into the section 7 consultation process.” *National Wildlife Federation*, 524 F.3d at 932, 936. *See also Salmon Spawning & Recovery Alliance v. National Oceanic and Atmospheric Administration's National Marine Fisheries Service*, 342 Fed. Appx. 336, 338 (9th Cir. 2009) (unpublished); *California Native Plant Society v. U.S. Environmental Protection Agency*, 2007 WL 2021796, at \*21, n. 7 (N.D. Cal. July 10, 2007) (FWS not obligated to “implement” the goals of a recovery plan via a biological opinion). Thus, the fact that a species is not meeting the criteria for recovery to the point that protection under the ESA is no longer required does not necessarily equate with a finding that current management actions are jeopardizing the species existence.

Here, where the species is on its way toward meeting the recovery goals necessary for downlisting, but has not yet attained the criteria solely because population increases lack statistical significance, the population cannot be said to be in jeopardy. Though two sub-regions of the population are in decline, that fact does not justify a finding that current fisheries management decisions would be reasonably expected “to reduce appreciably the likelihood of both the survival and recovery” of the Steller sea lion. *See* 50 C.F.R. § 402.02. *See* Draft BiOp at 185, 336, 337 (citing work of Dr. Maschner showing that Steller sea lion abundance shifts in relation to oceanic regimes independent of fisheries).

## 2. NMFS Did Not Establish the Importance of the Two Declining Sub-Regions to the Western DPS as a Whole

A jeopardy opinion must be based on the effects of an action on the status of the species as a whole. If an agency intends to rely on declines to only a sub-portion of the population (two of seven sub-regions, in this case) while the remainder of the population is stable or increasing, it must provide a reasoned, record-documented basis for its determination—the significance of the sub-portion of the population to the species as a whole.<sup>1</sup> See ESA Consultation Handbook, at 4-36; *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679 (D.D.C. 1997). NMFS does not provide a reasoned basis for relying on decreasing population trends for two of seven sub-regions to support its conclusion that the western DPS is in jeopardy of extinction throughout its range as a whole.

The Draft BiOp relies on the 2008 Recovery Plan's delineation of seven sub-regions of western DPS populations. The 2008 Recovery Plan itself includes little or no discussion of how or why NMFS decided to divide the western DPS into seven sub-regions or why it chose certain boundaries between those regions. Importantly, there is no discussion in the 2008 Recovery Plan or the Draft BiOp of the relative importance of any one sub-region in relationship to the other sub-regions or to the habitat as a whole. The Draft BiOp suggests, however, that the two sub-regions in which populations are declining are outside the Steller sea lion's core habitat. Draft BiOp, at 82. The western and central Aleutian Islands are less hospitable to Steller sea lions given the harsher climate conditions and smaller prey base which may have contributed to a lower carrying capacity over time. Draft BiOp, at xxv. Given the peripheral nature of these populations and NMFS' failure to discuss why declines in these two sub-regions are of particular concern to the Steller sea lion population as a whole, NMFS' jeopardy determination is unsupported by the record.

The only explanation offered by NMFS for relying on declining trends in two sub-regions to the exclusion of other positive indicators of Steller sea lion recovery in the other five sub-regions is the 2008 Recovery Plan's statement that "[b]ecause the previous decline started in one area and spread to other areas, a substantial decline of any two adjacent sub-regions would indicate an active threat that was not predicted." Draft BiOp, at 334, 2008 Recovery Plan at V-16.<sup>2</sup> Neither

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<sup>1</sup> The Draft BiOp further breaks down Steller sea lion population demographics into 11 Rookery Cluster Areas ("RCA"). Of the 11 RCAs, four (those corresponding with the western and central Aleutian sub-regions) have declined since 2000, while the remaining seven have had stable to increasing populations. Draft BiOp, at 80-81.

<sup>2</sup> Though NMFS relies heavily on the Recovery Plan's downlisting and delisting criteria to justify its determination that continued fisheries management will jeopardize the existence of the Steller sea lion, it fails to acknowledge that the Recovery Plan also recommends that NMFS "[m]aintain current or equivalent fishery conservation measures until change is warranted." Recovery Plan, at V-5. NMFS has failed to provide a rational and reasonable explanation for taking action inconsistent with the 2008 Recovery Plan that includes new and different fisheries

the Draft BiOp or Recovery Plan provide further explanation of this statement or citation to authority. If indeed the Recovery Plan is accurate that historical declines began in one area and spread to others, there is no discussion of the causes of such historical declines and whether they can be compared either directly or indirectly to the causes of declining populations in the western and central Aleutian Islands today. NMFS provides no evidence that current species threats will spread in the same way as historical ones or that declines in one or more sub-regions are predictive of active species threats that may jeopardize the species as a whole. Further, while it might be “wise” to maintain viable populations in each sub-region, it is not at all clear that maintaining the population in the western and central Aleutian Islands is necessary to avoid jeopardy to the species as a whole. *See* Draft BiOp, at 334; Recovery Plan, at V-16.

**C. A Determination of Adverse Modification to Critical Habitat Must Be Based on Effects to Critical Habitat as a Whole**

Section 7(a)(2) of the ESA requires federal agencies to satisfy two standards in carrying out their programs. 16 U.S.C. § 1536(a)(2). Federal agencies, in consultation with the Secretary, must ensure that their activities are not likely to: (1) jeopardize the continued existence of any listed species, or (2) result in the destruction or adverse modification of designated critical habitat. *Id.* The ESA requires the Secretary to provide at the conclusion of consultation “a written statement setting forth the Secretary’s opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat.” *Id.* § 1536(b)(3)(A); *see* 50 C.F.R. § 402.14(h).

The regulations implementing Section 7 of the ESA define “destruction or adverse modification” as “a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species.” 50 C.F.R. § 402.02. This regulatory definition has been faulted for failing to account for the “recovery needs” of the affected species. *See Gifford Pinchot Task Force v. U.S. Fish & Wildlife Service*, 378 F.3d 1059, 1069-70 (9th Cir. 2004); *see also Butte Environmental Council v. United States Army Corps of Engineers*, 607 F.3d 570, 582 (9th Cir. 2010); *National Wildlife Federation v. National Marine Fisheries Service*, 524 F.3d 917, 931-33 (9th Cir. 2008). As a result, courts instruct the Services not to rely on the regulatory definition and instead to apply a definition of “adverse modification” that considers the value of critical habitat for the recovery of affected species. *See Gifford Pinchot*, 378 F.3d at 1069-70.

An adverse modification determination must be based on the effects of the proposed action to the species critical habitat as a whole, not just a portion of that habitat. The ESA Consultation Handbook provides: “Adverse effects on . . . constituent elements or segments of critical habitat generally do not result in . . . adverse modification determinations unless that loss, when added to

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management measures. *See Sw. Center for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1136-37 (S.D. Cal. 2006) (holding an incidental take permit inconsistent with the “strategies and objectives in the recovery plan” and remanding to the FWS “to explain why it reached inconsistent conclusions from the same evidence”).

the environmental baseline, is likely to result in significant adverse effects throughout the species' range, or appreciably diminish the capability of the critical habitat to satisfy essential requirements of the species." ESA Consultation Handbook, at 4-34.

Consistent with this approach, the Ninth Circuit recently held in *Butte Environmental Council* that an "adverse modification" occurs only when there is "a direct or indirect alteration that *appreciably diminishes* the value of critical habitat." 607 F.3d at 582 (citing 50 C.F.R. § 402.02; *Gifford Pinchot*, 378 F.3d at 1070, 1075). Thus, "[a]n area of a species' critical habitat can be destroyed without appreciably diminishing the value of the species' critical habitat overall." *Id.* As a result, the Ninth Circuit upheld the FWS's determination that destruction of a percentage of critical habitat for the vernal pool fairy shrimp, vernal pool tadpole shrimp, and slender Orcutt grass, would not amount to a finding of "adverse modification." 607 F.3d at 583.

Here, the Draft BiOp does not address whether the supposed negative effects of fisheries management in the western and central Aleutian Islands amounts to adverse modification to Steller sea lion critical habitat *as a whole*. Indeed, NMFS misstates the standard for adverse modification, claiming that "NMFS must determine whether *affected designated critical habitat* is likely to remain functional (or retain the ability to become functional) to serve the intended conservation role . . ." Draft BiOp, at 329, 347 (emphasis added). The question is not whether "affected" habitat will maintain its conservation function, but whether the loss of conservation function in the "affected" habitat will "appreciably diminish[] the value of the species' critical habitat overall." *Butte Environmental Council*, 607 F.3d at 582. Even if NMFS had concluded that a reduction in prey base in the western and central Aleutian Islands has reduced the conservation value of critical habitat in this area (a conclusion which itself is unsupported by the record), *see* Draft BiOp, at 347, NMFS cannot properly make that conclusion without an explanation in the BiOp to show that Steller sea lion critical habitat *as a whole* is adversely modified by continuing fisheries management.

**D. NMFS Does Not Apply the Best Scientific and Commercial Data Available to Assess the Current Species and Fishery Status and Define the RPA, and Does Not Make A Rational Connection Between the Facts Found and Comments Made in the Draft BiOp**

NMFS' jeopardy and adverse modification decisions must be based upon the "best scientific and commercial data available." 16 U.S.C. § 1536(a)(2). The ESA Consultation Handbook explains that NMFS must first gather all biological, ecological, or other scientific data, particularly information "disputing official positions, decisions, and actions proposed or taken by the Services." ESA Consultation Handbook, at xi. Once available information is gathered, the agency must "impartially evaluate" the data to "ensure . . . [it] is reliable, credible, and represents the best scientific and commercial data available." *Id.*

NMFS must also make a rational connection between the facts found and the choices made. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). While

some degree of uncertainty is inherent in scientific analyses, it is not “sufficient for an agency to merely recite the terms ‘substantial uncertainty’ as a justification for its actions.” *Id.* at 52. An agency must “articulate a satisfactory explanation for its action.”

Here, the NMFS does not consider the best available scientific information to assess jeopardy and adverse modification for the western DPS of Steller sea lions. NMFS fails to make a rational connection between the available information considered and its conclusions that Steller sea lions in the western and central Aleutians are declining due to nutritional stress and that its recommended RPA will reverse declining population trends. NMFS relies on some studies to the exclusion of others without explanation, cites to findings that are uncertain and equivocal, and makes sweeping conclusions that are unsupported by the record. NMFS’ failure to use the best available scientific information leads the agency to a flawed assessment of the status of the western DPS’s biology, fisheries affecting prey species, and the potential effects of fisheries to Steller sea lion prey availability. Further, the Draft BiOp does not provide a sound scientific justification for the proposed RPA.

In addition to the comments below, the State supports specific parts of the comments provided in the Draft Report of the Scientific and Statistical Committee (SSC) to the NPFMC dated August 16-17, 2010. Specifically, the State concurs with the comments which appear at pages 6-8 of the draft report and are set out in the box below.

#### **NPFMC SSC Comments**

The SSC received a report titled “Steller Sea Lion Fishery and Oceanographic Analysis BiOp2010 (February 11, 2010)”, summarized for us by Elizabeth Logerwell (NMFS, AFSC). The SSC appreciates the efforts to analyze population trends for Steller sea lions relative to harvest rates and oceanographic factors. We had a number of comments in regards to the data used in the report and the analyses that were conducted:

Data issues:

- The report attempts to evaluate harvest rates within 11 geographic regions (referred to as RCAs in the Biological Opinion). The SSC believes that the available data, particularly for patchily distributed Atka mackerel, do not support apportionments at the scale of the RCAs. The apportionment of Atka mackerel surveys did not include years that had “unrealistic” biomass estimates but linearly interpolated between survey years, thereby creating artificial data with unknown accuracy. Given the high variability in survey biomass, interpolated values may be both inaccurate and serially correlated.
- Because only decadal-scale averages are used in the analysis, the SSC suggests that analysts test for significant differences in the proportions of biomass by area across survey years. If no significant differences are found, averaged proportions (by decade or over the entire time period) should be used.
- While the use of harvest rates as a measure of potential impacts is preferable to the use of

absolute catches, highly variable biomass estimates introduce large uncertainties in the ratio of Catch/Biomass. If reasonable biomass estimates can be obtained (say from a model), the use of biomass density as a measure of prey availability could be considered. However, if survey biomass is used as a proxy for prey availability, some discussion of the overlap between the size of SSL prey and the size of fish retained in the survey needs to be included. If adequate length-frequency data from the survey are available, it may be possible to estimate biomass for the appropriate SSL prey size range.

- There is an obvious mismatch between the season when survey data are collected (summer, particularly for Atka mackerel and Pacific cod) and when the fisheries occur (winter). The assumption that proportions by area do not change through the season needs to be clearly stated and the associated large uncertainty should be acknowledged.

Analysis issues:

- As noted above, survey data were interpolated between some years and the interpolated points were subsequently used to calculate harvest rates. These rates were then averaged across decades to produce single points for each area for the regression analysis with SSL population growth. The statistical properties of these average rates are unknown but are likely overly precise due to artificially increased sample sizes. Consequently, the significance of the regression is likely overstated.
- Furthermore, linear regression analysis is not appropriate for relating population growth rates to estimated harvest rates given the large errors in the independent variable (harvest rates, which depend on highly uncertain biomass estimates). This will overstate the significance of the regression. The author should consider a simple parametric or non-parametric correlation analysis that makes fewer assumptions or an error-in-variables analysis.
- Use of a p-value of 0.25 for tests of significance of the slope of a regression is not a commonly accepted scientific practice and should be lowered to at least 0.10 (as was done in the BiOp) or additional justification for this level of p-value provided.
- Each of the spatially defined data series used in the regressions (SSL population growth rates and fishery harvest rates) is strongly auto-correlated (strong east to west trends). This reduces the effective sample size and will increase the effective type I error rate. The effect of spatial autocorrelation could explain the larger number of significant relationships between population growth rates and oceanographic variables in the Aleutians because both display strong east to west spatial gradients in this area, hence the probability of finding significant relationships is inflated. To evaluate correlations between auto-correlated time series, methods to compute the effective sample size have been developed (see, e.g., Pyper and Peterman 1998, *Can. J. Fish. Aquat. Sci.* 55: 2127–2140). The same method could be used in this spatial context if equal spacing between adjacent regions is assumed.
- The authors acknowledged the potential for getting significant results by chance due to conducting multiple statistical tests but do not attempt to adjust p-values (Bonferroni or similar adjustments) or to evaluate the probability of getting a significant result in a certain number of tests (e.g. sign test). However, such adjustments are only justified for groups of independent tests,

whereas the authors aggregated results across tests that are clearly not independent. For example, tests based on data from the 1991-2008 time period are not independent of tests using data from 2000-2008.

- The use of decadal time periods, rather than shorter periods, may mask relationships between SSL counts and fisheries or oceanographic observations. For example, the 2000-2008 time period aggregates across well-known warm and cold periods. There may also be lag times between fishery harvests or oceanographic factors and observable effects on SSL numbers that could be incorporated in the analysis if appropriate lags can be identified. One alternative would be to use individual data points for years with both survey and SSL population growth rates and treat area as a categorical variable in a general linear model or random effects model.
- Arrowtooth flounder are not included in the analysis of population growth rates in the Aleutian Islands because of low abundances and low frequency of occurrence in SSL stomachs. The SSC encourages the authors to include arrowtooth flounder in this region because of their increasing population trend and their important role as prey in other regions and as potential competitors for SSL prey.
- To avoid confusion, the authors should use 'population growth' instead of 'growth' throughout the document.

White Papers by Ianelli et al.

These two papers present projections of the Aleutian Islands Atka mackerel and Pacific cod populations into the future under the fishing restrictions in areas 542 and 543 proposed in the RPA. The projections are a straightforward application of the projection methodology used in the SAFE, but require additional assumptions (independence of areas, same population dynamics as in the SAFE). Not surprisingly, the populations are expected to grow over the next ten years, thus providing more prey for Steller sea lions in those areas.

The SSC recommends that the authors include a brief summary of the projection methodology in the Methods section. This will allow readers to understand or remember details, such as which population parameters are used and which ones are stochastic. The values of  $F_{ABC}$  and which assessment tiers these were derived from should also be given.

The SSC also requests that the authors provide a rationale for why they included other species in the projection tables but then left them constant instead of projecting them analogously to Atka mackerel and Pacific cod. One would not expect the other species to stay constant, even if fishing mortality and all other population parameters were constant.

## 1. NMFS Did Not Adequately Consider Opposing Scientific Views

The Draft BiOp includes a short description of the work by Dr. Boyd (Boyd, I.L 2010, in press).<sup>3</sup> Draft BiOp, at 93. The Draft BiOp discounts this report—which argues that decreased abundance in some regions can be attributed to internal re-distribution of juveniles and that the risk of extinction of Steller sea lions has declined to a level that they should no longer be listed. However, the Draft BiOp does not adequately describe the reasons for the exclusion of this alternative hypothesis from the BiOp’s analysis. NMFS must provide additional explanation regarding the failure to explain the alternative hypotheses identified in this paper.

Similarly, the Draft BiOp contains a brief description of the work by Dr. Maschner. Draft BiOp, at 185, 336, 337. These reports describe historic changes in Steller sea lion abundance in relation to oceanic regime shifts and sustainable fisheries and suggest that Steller sea lion size and abundance can vary significantly independent of fisheries. As is the case with the work of Boyd, the draft BiOp discounts these reports without adequately describing the reasons for their exclusion. NMFS must provide additional explanation why the alternative hypotheses identified in these papers are not applicable to present Steller sea lion conditions and population findings.

The Draft BiOp also fails to adequately consider the work of Calkins (*Fixed Gear Marine Mammal Interactions Study*, submitted to NMFS on April 6, 2008) in assessing the interaction of the western DPS of Steller sea lions with commercial fisheries. Results of this study showed that there are no ecological reasons why low effort or efficient fishing should have any effect on sea lion population growth trends within the near future. The report concludes that the results are consistent with the hypothesis that longline fishing and Steller sea lion population trends are largely independent of each other. This work questions the BiOp’s conclusion that commercial fishing is resulting in nutritional stress.

## 2. Use and Application of Rookery Concentration Areas (“RCAs”)

It is not clear how the RCAs in the Draft BiOp were developed and calculated. Fritz et al. (2008) is cited in the BiOp as being the source. But Fritz et al. (2008) do not provide a methodology for

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<sup>3</sup> Unless otherwise stated below, citations in this section are *available at* <http://alaskafisheries.noaa.gov/protectedresources/stellers/esa/biop/draft/0810.htm>. See also Fritz, L. and E. Logerwell (2010) Steller sea lion, fishery, and oceanographic analysis BiOp 2010 (February 11, 2010), *available at* [http://alaskafisheries.noaa.gov/protectedresources/stellers/esa/biop/draft/afsc\\_ssl\\_fishery\\_analysis0210.pdf](http://alaskafisheries.noaa.gov/protectedresources/stellers/esa/biop/draft/afsc_ssl_fishery_analysis0210.pdf); Ianelli, J., S. Lowe, G. Thompson, and L. Logerwell (2010a) Aleutian Islands trawl survey biomass summary, *available at* [http://alaska fisheries.noaa.gov/protectedresources/stellers/esa/biop/draft/ianell\\_etal\\_trawlbio0710.pdf](http://alaska fisheries.noaa.gov/protectedresources/stellers/esa/biop/draft/ianell_etal_trawlbio0710.pdf); Ianelli, J., S. Lowe, G. Thompson, and L. Logerwell (2010b) Projections of Atka mackerel and Pacific cod catch reductions, *available at* [http://alaskafisheries.noaa.gov/protectedresources/stellers/esa/biop/draft/ianelli\\_etal\\_mack\\_pcod\\_reductions0710.pdf](http://alaskafisheries.noaa.gov/protectedresources/stellers/esa/biop/draft/ianelli_etal_mack_pcod_reductions0710.pdf).

a statistical cluster analysis to make these divisions. Since the RCAs form the foundation for assessing impacts and development of RPAs, further clarification and justification is required.

### **3. Inadequate Support for Nutritional Stress Theory**

The basis for the Draft BiOp's jeopardy and adverse modification determinations and the foundation for the proposed RPA is NMFS' finding that declines in the western populations of Steller sea lions can be attributed to nutritional stress, which can be relieved by restrictions on federal fisheries. However, of 32 possible indicators identified to assess nutritional stress, there is data to assess only 17. Draft BiOp, at Table 3.17. Of these, data was not analyzed to assess three. Of the remaining 14 indicators evaluated, 13 showed a negative relationship; only one indicator showed a positive relationship (reduced birth rate). *Id.*

The one indicator that points to nutritional stress in the western and central Aleutians should be viewed with caution given the lack of life history data in this area. *Id.* at 90. Further, all other available indices suggest that nutritional stress is not a concern for the Steller sea lions in the western and central Aleutians. The following indicators were negatively correlated with western Steller sea lion populations: emaciated pups, reduced pup body size, reduced pup weight, reduced growth rate, reduced pup survival, reduced juvenile survival, reduced adult survival, reduced overall survival, reduced pup counts, reduced non-pup counts, changes in blood chemistry, and increased incidence of disease. *Id.* at Table 3.17. None of these indicators was present in higher proportions for the western and central sub-regions than other sub-regions of Steller sea lions. Indeed, the Draft BiOp acknowledges that there is significant debate over the importance of nutritional stress in explaining the dynamics of the western DPS of Steller sea lions. *Id.* at 109, 343. Where indications of nutritional stress were evident in the 1980s, they were not evident in the 1990s and are no longer present today. *Id.* at 110-11, 115-16, 340, 343. Despite the overwhelming evidence to the contrary, the Draft BiOp concludes that nutritional stress is the primary factor affecting the recovery of the western DPS of Steller sea lion.

NMFS fails to provide a rational analytical basis for its hypothesis that low natality—the sole indicator of nutritional stress present in the western Steller sea lion population—is in fact caused by lack of adequate food supply. In fact, data are not available, especially in RCA 1 (the RCA for which a total fishing ban was recommended) to determine if the low pup to non-pup ratio is due to nutritional stress, the environment, or some other factor including measurement error in pup and non-pup counts relative to the other RCAs. The only information on this topic from the western Aleutians is the TEZ experiments reported in Ortiz and Logerwell (2010) for Kiska Island, which showed that the current production of Atka mackerel could support the consumption needs of all predators including the presumed predation by Steller sea lions that were in this area in 1977. The logic used on this issue is similar to that used to link fishing intensity with Steller sea lion growth rate, where the lack of a significant relationship (or no analysis possible) is taken to imply that there could (or should) actually be a relationship. If low natality cannot be linked to nutritional stress then there is no positive evidence that nutritional stress is a factor in the exposure analysis.

The evidence for a reduced birth rate is largely from reduced pup/non-pup counts in the western and central Aleutian areas. The assumption is made that the decline in pup counts is a result of reduced natality and does not address other potential theories. For example, perhaps the decline in birth rates could be attributed to some sort of mortality that occurs between birth and the time that pup counts actually occur (i.e., predation). In addition, the data presented in Tables 3.6 and 3.7 of the BiOp do not support fully either the theory of nutritional stress nor the severe fishing restrictions outlined by the RPA for area 542. In Table 3.6, the estimated percentage of females with pups on rookeries in the central Aleutian Islands is actually greater than the estimated percentages for sub-areas where the Steller sea lion population is increasing (eastern Gulf, western Gulf, and eastern Aleutian Islands). In Table 3.7, the estimated percentage of females with pups on rookeries and haulouts in the central Aleutian Islands is also greater than the estimated percentages for sub-areas where the Steller sea lion population is increasing (i.e., eastern Gulf, central Gulf, western Gulf, and eastern Aleutian Islands).

Further a number of factors other than nutritional stress may be affecting the recovery of the Steller sea lions in the western and central Aleutians, including killer whale predation and contaminants.

Effect of killer whale predation. The Draft BiOp concludes that killer whales are only a “possible” stressor to Steller sea lions, and as such cannot explain the lack of recovery of Steller sea lions in the western Aleutians. However, published mathematical models (Williams *et al.* 2004; Guénette *et al.* 2006; Guénette *et al.* 2007) and life-history tags (Horning and Mellish 2009) indicate that killer whales are the major source of mortality of sea lions and have a greater impact when sea lion numbers are reduced. *See* Draft BiOp, at 92, 107-08. In one of these studies 7 of 8 sea lions perished in a sudden, violent death at sea indicating killer whale predation may be a major source of mortality. Based on these studies, killer whales should be recognized by NMFS as a *likely* stressor and thereby could be affecting the recovery of Steller sea lions in the western and central Aleutian areas.

Effect of contaminates. Toxic substances can impair animal populations through complex biochemical pathways that suppress immune functions and disrupt the endocrine balance of the body causing poor growth, development, reproduction, and reduced fitness (de Wit *et al.* 2002). Organochlorine (“OC”) contaminant exposure in marine mammals has been associated with reproductive failures (Reijnders 1986), population declines (Martineau *et al.* 1987), and immune suppression (Beckman *et al.* 2003). No toxicological studies have been published on Steller sea lions to determine possible effects of OC contaminants; however, OCs that cause health impacts in other species have been measured in subsets of Steller sea lion populations from Japan, the Russian far east, Aleutian Islands, Pribilof Islands, Gulf of Alaska, and southeast Alaska (Hoshino *et al.* 2006, Hong *et al.* 2005, Myers 2005).

At present, there is not enough information to determine what role, if any, exposure to contaminants plays in the health, survival, and recovery of Steller sea lions (Atkinson *et al.*

2008). The potential for Steller sea lion exposure to unknown contaminants is a significant gap in the understanding of impacts of pollutants on Steller sea lions (Barron et al. 2003).

Steller sea lions have shown various levels of toxic substances including heavy metals and OC with generally higher levels in the most western portions of the range including Russia. These concentrations of substances are not believed to have caused high levels of mortality or reproductive failure; however, there are no studies on the effects of toxic substances on Steller sea lions specifically to determine their impact on vital rates and population trends.

Adult females and pups are likely the age classes most vulnerable to toxic substances. Steller sea lion pups from the western DPS had statistically higher mercury levels in kidney and liver tissues and lead in liver tissues than animals from the eastern DPS (Holmes et al. 2008). Steller sea lion pups in the western portion of the range appear to have higher mercury and PCB levels than the eastern portion of the range (Castellini et al. 2009).

Based on these studies, there is reason for concern that toxic substances may have indirect impacts on individual vital rates, including reproductive potential. Thus, contaminants should be recognized by NMFS as a *likely* stressor and thereby could be affecting the recovery of Steller sea lions in the western and central Aleutian Island areas.

#### **4. Inconclusive Relationship Between Fisheries Management and Steller Sea Lion Populations**

Biomass Apportionment Issues. While it may be theoretically possible for commercial fisheries to adversely impact the prey field of Steller sea lions, recent studies show very inconclusive relationships between fishery removals of prey and Steller sea lion sub-population growth (AFSC 2010). *See* Draft BiOp, at xxix, 336, 345 (the evidence that fisheries management has caused declines in Steller sea lion populations is not “unequivocal”); 2008 Recovery Plan, at IV-4 (extent to which reductions in biomass from fisheries affects sea lion recovery is the subject of considerable debate and the recovery team could not reach consensus on this issue). It is also likely that these conditions vary geographically within the range of the western DPS of Steller sea lion (NMFS 2001, NMFS 2003). Such findings question the chronic nutritional stress basis used to justify the developed RPA.

Determining the nature and extent of commercial fisheries catch removed from the action area is an essential descriptive element in determining the baseline to assess potential impacts. The description of catch represents the ongoing presence of the fisheries that are the subject of the Draft BiOp, and describes the potential for overlap (short-term) between fishery actions and Steller sea lions and their habitat. Forage biomass in 2008 was calculated by applying the 2008 model biomass to the summer survey distribution in only 2006, rather than to a three or four survey rolling average as used in the Stock Assessment and Fishery Evaluation (“SAFE”) to calculate sub-area biomass distribution. This is in contrast to the procedures used in the stock

assessment and endorsed by the NPFMC Groundfish Plan Team and Scientific and Statistical Committee.

Diet Data. The information to assess diet of Steller sea lions in the BiOp is limited. Many of the conclusions are based on scat data. These data, particularly in the western Aleutians, are extremely limited. Only 46 scat samples *total* (all years, all seasons) exist from the western Aleutians and these were collected primarily during the summer. As a result, scat data from the central Aleutians were used as a proxy for the diet in the western Aleutians. Despite the acknowledgment that diets vary widely depending upon geographic areas and seasonally, the validity of grouping data and using a proxy approach was not tested or assessed. Methodology for converting frequency of occurrence to diet composition estimates was also not provided. Thus, critical assumptions regarding the importance of species in the diet of western Aleutian Steller sea lions are untested and the resultant conclusions should be viewed with skepticism.

Also, a 10% threshold of presence of a species is used to assess relative importance of a species in the diet. However, there is no justification given for the 10% threshold. Additional justification should be presented for the selected 10% threshold. These limitations make assessments of importance of species, both overall and seasonally, in the diet of Steller sea lion tenuous at best.

Telemetry Data. Past telemetry data indicate Steller sea lions in certain areas have tended to forage close to land, most within 20 nm. New spatial analyses indicate that Steller sea lions indeed forage close to rookeries and haulouts, particularly in the 0 to 10 nm zone and also in the areas further offshore to 20 nm (Boor 2010, AFSC 2010b). Recent telemetry information indicates that in RCAs 1, 2 and 3 a moderately large proportion of telemetered animals forage outside 20 nm (AFSC 2010b). However, the number of telemetered animals is few and most are juvenile males (3 juvenile males that were tagged in central Aleutians). This may also be the case for parts of the central Gulf of Alaska sub-region. The State questions whether juvenile male foraging behavior serves as a good proxy for adult female foraging behavior. Because the conclusions are based on such limited data, there is little support for the proposed RPA in Area 543 outside of critical habitat areas.

## **5. NMFS' Proposed RPA is Not Supported by the Best Scientific and Commercial Data Available**

When NMFS reaches a “jeopardy/adverse modification” conclusion, it must include reasonable and prudent alternatives, if any, that can be taken to avoid such jeopardy or adverse modification. 50 C.F.R. § 402.02. In addition to avoiding jeopardy and adverse modification, the alternatives must be (1) consistent with the intended purpose of the original action, (2) within the scope of the federal agency’s legal authority, and (3) economically and technologically feasible. *Id.* In formulating “reasonable and prudent” alternatives, NMFS must use the best scientific and commercial data available and consider any beneficial actions already taken by the federal agency or applicant. *Id.* § 402.14(g)(8).

As part of the development of RPAs, “NMFS must explain how the RPAs would avoid jeopardy and adverse modification.” *Greenpeace v. National Marine Fisheries Service*, 55 F. Supp. 2d 1248, 1268 (W.D. Wash. 1999); see ESA Consultation Handbook at 4-41; see also *Pacific Coast Federation of Fishermen’s Associations v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1091 (9th Cir. 2005) (“To permit an agency to ‘implicitly’ conclude that a species would be jeopardized by a proposed activity, and not require the agency to articulate a basis for its conclusion, ‘would reject the bedrock concept of record review.’”) (quoting *Gifford Pinchot Task Force v. U.S. Forest Serv.*, 378 F.3d 1059, 1072 n. 9 (9th Cir. 2004)). An agency’s decision to adopt an RPA that is not necessary to avoid jeopardy or adverse modification may be held arbitrary and capricious. See *Florida Key Deer v. Paulison*, 522 F.3d 1133, 1140, 1144 (11th Cir. 2008) (upholding district court’s finding that FWS’s reasonable and prudent alternatives were arbitrary and capricious); *Southwest Ctr. for Biological Diversity v. U.S. Bureau of Reclamation*, 143 F.3d 515, 523 (9th Cir. 1998).

Here, NMFS fails to provide a rational connection between the facts found and the choice made for its recommended RPA. Overall, the link between evidence utilized in the jeopardy and adverse modification determinations and the actions to be taken in the RPA is weak. The rationale for the jeopardy and adverse modification findings and the need for the RPA lacks the statistical and scientific rigor needed to justify the recommended actions. NMFS does not posit or document the required rational connection between the facts found and the choices made in the BiOp RPA. Specifically:

**Correlations between Steller sea lion population growth rate and fishing intensity over time and space indicate no significant relationship, yet these results are dismissed as preliminary and equivocal.** Although the Steller sea lion count and demographic data at the regional level are relatively precise and comprehensive, the linkage between these data (population growth rate) and the amount of fishing (harvest or harvest rate) on major Steller sea lion prey items is equivocal at the scale of RCAs within regions (see Fritz and Logerwell 2010). The Draft BiOp does acknowledge these equivocal results, but chooses to neither rely solely on or to ignore these results (in Chapter 7) for a variety of reasons detailed in Chapter 5. While these analyses are correlative in nature and were combined into a decadal temporal scale to account for imprecision of annual data points, they are no better or worse than the Steller sea lion trend data at this same scale (mostly non-significant Steller sea lion population growth rates during 2000-2008) and do indicate that there is likely no association between fishery harvest rate and Steller sea lion growth rate, especially since 2000.

Rather than an equivocal result, these data provide ample evidence that variation in Steller seal lion population growth rate is independent of fishery harvest rate. These data would further explain that the observation of a variety of regression slopes, some negative, some positive, but most insignificant at an acceptable significance level ( $p = 0.10$  or less) would indicate that directional slopes are merely due to random chance, not indicative of a correlation, and that overall we would fail to reject the null hypothesis of a slope equal to zero or no correlation.

When weighed against other evidence in the BiOp, this analysis presents a scientific basis for a lack of linkage between fishing intensity and Steller sea lion recovery, as measured by population growth rate, that NMFS must, but does not, address in the BiOp.

**An increase in prey biomass after cessation of or reduction in fishing may not be detectable, yet these uncertainties are overlooked in the analysis.** The Draft BiOp uses the average of realizations made to project Atka and Pacific cod biomasses after cessation or reduction in fishing. While this is fairly typical for the short-term purposes of fishery management (e.g., status determinations), it does not meet the evidentiary standard that should be maintained for providing a detectable increase in prey for Steller sea lions under a jeopardy finding. For example, Atka biomass projections in the Aleutians are based on a starting value of the average of the last three surveys (2002, 2004, 2006). Using area 543, the average biomass for the three surveys was 244,074, but ranged from 100,693 in 2006 to 376,414 in 2004 (Table 2 of Ianelli et al. 2010a), so that the CV of this average is 57% (i.e., the SD is 57% of the average). This means that the average biomass over three surveys would have to increase by 93% (from 244,074 to 471,399) to be a statistically detectable increase in prey biomass with 90% confidence. At a minimum it would have to increase by at least 57% (from 244,074 to 382,266) to have a 50% chance of being statistically detected as a true increase.

For area 543, Atka biomass is projected to increase 48% in 11 years, which will have a less than 50% chance of being detected given the variability in assessments of this species. Using this same statistical logic, Ianelli et al. 2010b (Table 3) show that increasing Atka biomass in the entire Aleutians from 500 kt to 750 kt (a 50% increase) occurs in only 44 of 100 iterations of the projection model at year 2019 (11 years from 2009) with a harvest of 5% of ABC (almost no fishing), which means that there is only a 44% chance that this 50% increase will be realized. One might reason that the increases in biomass will become more certain with the passage of time, but the chances of a 50% increase actually decrease to 38% in 20 years (Table 3 of Ianelli et al. 2010b). These sources of uncertainty are virtually ignored in the discussion of the action (closing directed fishing) versus the anticipated response (avoiding jeopardy or adverse modification).

**The BiOp fails to balance the need for precaution with the need for proaction under uncertainty.** While the BiOp claims to justify the RPA as a precautionary measure in the face of considerable statistical and scientific uncertainty about the trend in Steller sea lion abundance and the link between Steller sea lion growth rate and fishing intensity, it fails to assess all of the risks of the claimed needed inaction (stop fishing, but we will not learn much) against all of the risks of continued action (continue fishing, with a chance that we will learn something). The precautionary principle argues that we should not act unless the risk of the predictability is weighed against the reversibility of the outcome (i.e., avoid a negative outcome). For example, NMFS contends that fishing in the Western Aleutian Islands needs to be stopped because it cannot predict what continued fishing will do to Steller sea lions and the situation with Steller sea lion trends in the western Aleutians may not be reversible. However, there is another equally important principle (the proactive or active precautionary principle) in science that argues that

we must continue to fish in the Western Aleutians to see if the effects on Steller sea lions are predictable and reversible or not. This principle is based on the premise that we will never know whether Steller sea lion trends are related to fishing, or if they are reversible at all by stopping fishing and just waiting, since the links between cause and effect are complex and fraught with uncertainty.

This is not simply a philosophical argument for one very important reason; if the Steller sea lion population growth rate improves after fishing is stopped (for whatever reason) then we will never be able to start fishing again for fear that fishing will cause the Steller sea lion population to go down again. If the Steller sea lion population growth rate does not improve, we will have still stopped fishing and will likely continue to curtail fishing while we enact additional measures to improve the Steller sea lion status. We have predetermined the outcome of the experiment and will have learned nothing. However, if we keep fishing, we have two possible alternatives: the Steller sea lion population continues to go down so we need to consider enacting the fishery closures later on, or the Steller sea lion population goes up and we conclude that fishing was not the primary cause of the decline. The first situation is not designed to be reversible (we will never fish again regardless of outcome) with respect to all risks, whereas the second situation is designed to be reversible. The previous BiOp and many comments made by the NPFMC's SSC in the past point to this potential experiment as a way to clarify the relationship between fishing and Steller sea lion population growth rate.

**Lack of basis for proposed Pacific cod restrictions.** The case for Pacific cod as an important prey species for Steller sea lion is tenuous at best and as a result the basis for its inclusion in the RPA is unjustified. First, the basis for inclusion of Pacific cod in the RPA is based on the presence of this species in the diet based on evidence from scat samples. As discussed previously, critical assumptions regarding the importance of species, particularly Pacific cod, in the diet of western Aleutian Steller sea lions are untested and resultant conclusions should be viewed with skepticism. Available information suggests that 94% of sea lion scat samples collected during the summer (when major fisheries restrictions are proposed) contained no cod at all. Further, Pacific cod makes up a relatively small proportion of the overall biomass in the area of concern relative to Atka mackerel, and due to predation effects, any possible increase in the Pacific cod population could negatively affect the Atka mackerel population (which is a significantly more important prey species to Steller sea lions in this area). In addition, there is evidence to indicate that fisheries and sea lions have little overlap in terms of the size of the Pacific cod they target. Finally, the justification given for the complete closure of Area 543 is based on the feeding behavior of telemetered animals. However, as stated previously the number of telemetered animals is few and most are juvenile males (3 juvenile males that were tagged in central Aleutians). It is unknown whether juvenile male foraging behavior serves as a good proxy for adult female foraging behavior. Because the conclusions regarding Pacific cod are based on such limited data, there is little support for the proposed RPA in Area 543 outside of critical habitat areas.

## 6. A Less Restrictive RPA Should Be Considered

“When faced with a range of possible measures [that may avoid jeopardy or adverse modification], NMFS can pick amongst them based on other factors, including effects on the fishing industry.” *Greenpeace v. National Marine Fisheries Service*, 55 F. Supp. 2d at 1268. (citing *Southwest Ctr. for Biological Diversity v. U.S. Bureau of Reclamation*, 143 F.3d 515, 523 (9th Cir. 1998)). See also *Bennett v. Spear*, 520 U.S. 154, 176-77 (1997) (stating that an important purpose of the “best scientific and commercial data available” requirement is to avoid needless “economic dislocation produced by agency officials zealously but unintelligently pursuing their environmental objectives”). As the Ninth Circuit specified in *Southwest Ctr. for Biological Diversity v. U.S. Bureau of Reclamation*, if more than one RPA would avoid jeopardy to a species, “the Secretary must be permitted to choose the one that best suits all of its interests, including political or business interests.” 143 F.3d at 523 n. 5. In considering RPAs, the Secretary is not required to pick the alternative that would most effectively protect a species from jeopardy, the Secretary need only adopt an RPA that complies with the jeopardy standard and which can be implemented by the agency. *Id.* at 523.

The Draft BiOp concludes that large portions of fishing areas need to be closed or restricted in the Aleutian Islands to rebuild Steller sea lion prey biomass and eliminate the *theory* that nutritional stress is causing reduced natality in the western and central Steller sea lion subpopulations. The scale of the areas in the RPA that are fished compared to the scale of the area closed is mismatched. As noted above, the performance standards lack clarity with respect to the precise measures that would need to be attained to satisfy the intent. We suggest that a more local-scale solution could be found that would also satisfy the fishery management performance measures and achieve the desired conservation goal. The State supports the Council’s recommendation for the NMFS to consider a more narrowly-tailored RPA that focuses specifically on those prey species in those areas that are most likely to affect Steller sea lions in the western and central Aleutians. The RPA should include a two-year sunset provision given the high degree of uncertainty over whether Steller sea lions in the western and central Aleutians are in fact nutritionally stressed and whether the RPA will have any effect in reversing declining trends in these sub-regions.

In taking positions and participating and voting before the NPFMC, the State reserved all of its rights in exercising its discretion to take independent positions in later administrative proceedings, including these comments from the State on the draft Biological Opinion and draft EA/RIR. The revised RPA developed by the Council presents one option for an alternative RPA approach that NMFS needs to consider, and one which has a good documentary record supporting that alternative RPA. The Council’s development of this alternative RPA further supports the point that NMFS’ RPA presented in the draft BiOp must be reconsidered and revised. The rationale provided by the Council in support of the amended RPA demonstrates that NMFS needs to consider that amended RPA in its further Biological Opinion analysis.

## **VI. Comments on EA/RIR**

### **A. The EA/RIR is Incomplete and Inadequate to Fulfill NEPA's Purposes**

NEPA requires federal agencies to prepare an EIS for all “major federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). NEPA’s twin goals are to: (1) foster informed decisionmaking by “ensur[ing] that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts,” and (2) promote informed public participation by requiring full disclosure of and opportunities for the public to participate in governmental decisions affecting environmental quality. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349-50 (1989). To determine whether an EIS is necessary, an agency may first prepare an EA. *See* 40 C.F.R. §§ 1501.4(c), 1508.9. An EA must contain sufficient information and analysis to determine whether the proposed action is likely to have significant impacts, thus requiring preparation of an EIS. *See id.* § 1508.9. If the EA results in a finding of no significant impact (“FONSI”), an EIS need not be prepared.

The review draft EA/RIR for the proposed RPA is deficient for NEPA’s purposes of facilitating informed agency decisionmaking and public comment. Entire analyses are missing from the document. For example, Chapter 9 (Environmental Conclusions) is entirely blank. NMFS also chose not to obtain the information necessary for a thorough analysis of socioeconomic effects, declining to analyze changes in possible employment numbers resulting from loss of and restrictions on fisheries, without complying with NEPA’s requirements for incomplete or unavailable information. *See* EA/RIR, at 10-88; 40 C.F.R. § 1502.22. Nor is there any assessment of cumulative impacts to local communities or potential mitigation measures to ameliorate the effects of the RPA, given the variety of factors affecting fisheries and economies in the Aleutian Islands. *See* EA/RIR, Chapter 10.

The NPFMC is required to consider impacts to coastal communities when taking action under MSA. The EA/RIR fails to differentiate impacts on coastal communities from gross revenue estimates overall. Coastal communities in the BSAI and Gulf of Alaska will incur direct, indirect, and induced effects as noted by analysts. We understand the limitations of current input-output models to quantify these effects, but do expect additional qualitative description. Typically, EA/RIR analyses include a description of the fleet beyond gear and operation type. Vessel length, home port, vessel ownership, permit holder, crew size, and dependence on other fisheries are often summarized. Examining LLP holdings by affected vessels will better inform likely impacts of proposed actions on other fisheries.

It is reasonable to assume fishing operations affected by proposed actions will attempt to make up for lost revenue by increasing effort in fisheries where they are already permitted to do so, or where no costly permit is necessary. For example, if a vessel fishing the Aleutian Islands Pacific cod fishery exclusively inside three miles of the coastline is displaced and does not hold a federal license, they are likely to focus on other fishing opportunities inside three miles, such as the

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Western Gulf of Alaska, where federal permits are not required, but there is already an established fleet dependent on the fishery in that area. The EA/RIR does note that vessels that simply move to the Bering Sea are likely to encounter higher bycatch rates, but again they will also impact the established fleet in that area. In addition to bycatch rates, gear conflicts and inconsistencies with issues under examination by the NPFMC, such as crab bycatch in the Bering Sea groundfish fisheries, do not receive sufficient treatment.

The State also supports and hereby incorporates by references the comments of the Scientific and Statistical Committee in its Draft Report dated August 16-17, 2010, at pages 4-6, which are set out below.

**EA/RIR – Revisions to the Steller Sea Lion Protection Measures for the Aleutian Islands Atka Mackerel and Pacific Cod Fisheries**

Melanie Brown (NMFS-AKR) and Ben Muse (NMFS-AKR) presented the draft Steller sea lion EA/RIR. Public testimony was given by Jon Warrenchuk (Oceana), Dave Fraser (Adak Community Development Corporation, ACDC), Kenny Down (Freezer Longline Coalition), John Gauvin (Alaska Seafood Cooperative) and Frank Kelty (City of Unalaska).

The SSC recognizes that the EA/RIR was developed under a compressed timeframe and therefore several sections were incomplete (e.g., placeholder text on ecosystem considerations and cost and earnings data presented during the staff presentation are not incorporated in analysis). **Consequently, the SSC finds that the draft analysis does not presently provide a fully sufficient basis for public review of the likely environmental, economic, or social impacts of the alternatives.** During staff presentations, the analysts indicated their intention to replace placeholder text, backfill missing sections, clarify labels and legends on figures and tables and to rewrite some sections. Moreover, we note that other alternatives could be constructed that might achieve the intent of the RPA provided in the draft FMP BiOp. The SSC anticipates that the EA-RIR will undergo a substantial revision prior to final action in October and therefore **the SSC requests to review this document again at the October meeting.**

To assist the authors in their revisions we offer the following specific comments and suggestions.

Section 1.1.1. The SSC recognizes that additional alternatives may be submitted during the comment period. To assist the public, it would be useful to provide some guidance on how to interpret performance standards for fishery management measures used to develop the RPA in the FMP BiOp (listed on page 1-2). In particular, it would be useful to provide instructions on how the public should interpret the term “*conserve*” used in bullets 2, 3, and 5. Alternatives 2 and 3 use the standard of “*at least as protective as the RPA in the FMP BiOp*”. The authors should clarify whether this standard would require all alternatives to prohibit all targeted fishing for Atka mackerel and Pacific cod in area 543 or whether other alternatives that would “conserve” Steller sea lion forage in area 543 would be considered. Likewise it would be useful to clarify in section 1.1.1 whether NMFS will consider any proposal that allowed fishing for Atka mackerel within critical habitat.

Section 3.3.1.2 – 3.3.1.3. These sections focus on direct impacts on Atka mackerel and Pacific cod. The impact of the action on Pacific cod abundance could also impact Atka mackerel abundance through predation effects and should be incorporated into the analysis and discussion. These impacts are

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discussed in Doug Kinzey's dissertation (University of Washington, School of Aquatic and Fisheries Science) and other papers by the same author. Likewise, Ivonne Ortiz (University of Washington, School of Aquatic and Fisheries Science) addresses the species interactions of fish found in the Aleutian Islands.

Section 3.4.3. The document should include a discussion of the impact of the action if the NPFMC finds sufficient evidence that Pacific cod in the AI and EBS are separate stocks and should be managed as such for conservation purposes. The SSC has reviewed several white papers on the subject of Pacific cod stock structure and the SSC and Groundfish Plan Teams have formed a working group to provide guidance on stock structure of BSAI/GOA groundfish stocks.

Section 4.4. This section addresses direct impacts of the action on forage fish; however, indirect impacts could occur through changes in the foodweb, particularly the expected biomass increase in Pacific cod and arrowtooth flounder, both are major predators of Atka mackerel. Some consideration of indirect impacts of the action should be included in this section.

Section 8. The Ecosystem Impacts section needs considerable improvement. The SSC was informed that this section was a placeholder and will be revised in the final version. When considering revisions, the SSC encourages the authors to utilize the FEP framework for risk assessment.

The current version of the EA contains sections of the 2009 Ecosystem Considerations. Several bullets refer to changes from 2008 and 2009. These are not particularly relevant to assessing the impacts of this action. The authors should strive to focus their discussion of climate and environmental trends that are within a time frame relevant to the action.

....

While the SSC acknowledges limitations in data available for analysis and limitations associated with confidentiality of some of the data that is available, there is nevertheless a need to provide a more detailed discussion of the likely impacts of the alternatives on the communities of Adak, Atka, and Unalaska. The impacts on these communities are distinct from impacts on the four fishing fleets discussed in the RIR. Additional discussion is also needed on how MRA's, PSC's and possible fishing ground interactions may be factor precluding sectors from re-deploying elsewhere in an effort to maximize catch and minimize losses.

The SSC urges the analysts to carefully qualify the values reported for changes in revenues, costs, and nonmarket values so that the public is not misled into inappropriate direct comparisons of these values. Where possible, the values should be expressed in similar time frames. Similar care should be given to community-level impacts, such as employment and income multipliers.

Critical to understanding the context under which this SSL management action will be implemented is a recognition that Amendments 79/80 (GRS and Co-ops) have been, and are presently in the process of being, amended (e.g., FMP A.93). While the Amendment 93 analyses supporting the proposed structural changes in Amendment 80 cooperative formation criteria are substantially advanced, that action is not final. Therefore, Amendment 93 will very likely be delayed until the amendment analysis is brought into agreement with the SSL action.

## **B. The EA Considers An Inadequate Range of Alternatives**

NEPA requires federal agencies, to the fullest extent possible, to consider the environmental impact of major federal actions significantly affecting the quality of the human environment, *as well as alternatives* to proposed actions. 42 U.S.C. § 4332(2)(C)(i), (iii). NEPA regulations explain that the alternatives analysis is “the heart of the environmental impact statement” and that agencies should “[r]igorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. § 1502.14(a). The analysis must include a “no action” alternative, as well as reasonable alternatives beyond the jurisdiction of the agency. *Id.* § 1502.14(c)-(d). NEPA’s alternatives requirement is independent of and broader than the EIS requirement. *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1229 (9th Cir. 1988). *See also* 42 U.S.C. § 4332(2)(E) (requiring consideration of alternatives for unresolved resource conflicts).

The Ninth Circuit has held that “a viable but unexamined alternative renders [an environmental analysis] inadequate.” *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813 (9th Cir. 1999) (internal quotation marks omitted). Where a large number of alternatives is available, the agency must consider “a range of alternatives that covers the full spectrum of possibilities.” *Sierra Club v. Watkins*, 808 F. Supp. 852, 872 (D.D.C. 1991).

Here, the EA/RIR considered only three alternatives: (1) the No Action or “Status Quo” alternative, under which the fisheries would continue to be managed under existing policy; (2) the “Enhanced Conservation Approach,” which would be even more protective than the RPA by closing larger areas to fishing; and (3) the “RPA Specific Approach,” which would implement the RPA as specifically set out in the BiOp. As the State explained in Section V.6 above, NMFS does not provide a reasoned or quantified basis for recommending an RPA that closes area 543 and is restrictive of fishing in areas 542 and 541.

On August 20, 2010, the NPFMC offered an additional alternative, recommended by the Advisory Panel and supported by industry groups, that includes less restrictive measures still designed to support the survival and recovery of the Steller sea lion and the conservation value of its critical habitat. The proposed alternative, as explained above, is supported by the science available to NMFS and provides a reasonable alternative with less impact to Aleutian Island fishermen and their communities. The State requests that NMFS consider such an alternative that incorporates the changes recommended by the Council and prepare an EIS evaluating the effects of this and other alternatives.

## **C. The FONSI Is Unsupported Given Potentially Significant Impacts to Local Economies and Alaskan Natives**

Whether an action will have “significant” impacts requires consideration of both the context and intensity of the effects. 40 C.F.R. § 1508.27. Context requires consideration of the significance of the action to society as a whole, the affected region, the affected interests, and the locality. *Id.* § 1508.27(a). Intensity refers to the severity of the impacts. Factors considered in evaluating

intensity include impacts that may be both beneficial and adverse, unique characteristics of the geographic area (such as proximity to historic or cultural resources, park lands, wetlands or ecologically critical areas), the degree to which the effects on the quality of the human environment are likely to be controversial, the degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks, the degree to which the action may establish a precedent for future actions, whether the action is related to other actions with individually insignificant but cumulatively significant impacts, and the degree to which the action may adversely affect an endangered or threatened species or its critical habitat. *Id.* § 1508.27(b). The presence of just one of the intensity factors “may be sufficient to require preparation of an EIS in appropriate circumstances.” *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 846, 865 (9th Cir. 2004).

Through the NEPA process a federal agency must take a “hard look at the potential environmental consequences of a proposed action.” *Oregon Natural Resources Council v. U.S. Bureau of Land Mgmt.*, 470 F.3d 818, 820 (9th Cir. 2006). “If an agency . . . opts not to prepare an EIS, it must put forth a ‘convincing statement of reasons’ that explain[s] why the project will impact the environment no more than insignificantly.” *Ocean Advocates*, 402 F.3d at 864 (quoting *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998)). When reviewing an agency’s decision not to prepare an EIS, the Ninth Circuit has held that “[a]n agency *must* prepare an EIS if substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor.” *Wetlands Action Network v. U.S. Army Corps of Engineers*, 222 F.3d 1105, 1119 (9th Cir. 2000) (quotations omitted) (emphasis added, ellipsis by court). A party challenging an agency decision not to prepare an EIS need only raise a substantial question as to whether a project *may* have a significant effect on some human environmental factor; it need not demonstrate that such an effect will definitively result. *Center for Biodiversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1219 (9th Cir. 2008).

Here, the EA/RIR indicates that impacts to wildlife and other biological and ecological resources will be minor or insignificant, given the beneficial impacts of closing some and restricting other fishing areas. By contrast, the loss of revenue to the fishing industry may be great. NMFS’ own documents acknowledge that the agency lacks complete information to assess the range and depth of impacts to the fishing industry in this area. Draft EA/RIR at 10-87. Yet the EA still estimates, even based on this incomplete information, that gross revenue in the Aleutian Islands may be reduced by as much as \$102 million a year under the Enhanced Conservation alternative and \$66 million a year under the RPA alternative. Draft EA/RIR at viii, 10-88. Fishing and processing jobs will also be lost. NMFS anticipates that the economic impacts, however, will be mitigated to an unknown extent as the fishing fleet redeploys vessels to other fisheries in the Bering Sea. *Id.*

These socioeconomic impacts, which are interrelated with the physical impacts to the environment (changes in the fisheries management plan that will have on-the-ground effects for wildlife and ecosystems), will be significant in the context of the local communities that will be

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dramatically affected by the loss of jobs and income. *See Ashley Creek Phosphate Co. v. Norton*, 420 F.3d 934, 944 (9th Cir. 2005) (quoting 40 C.F.R. § 1508.14) (requiring consideration of socioeconomic effects in determining whether impacts of the proposed action are significant require preparation of an EIS); *see also Geertson Seed Farms v. Johanns*, 2007 WL 518624, \*7 (N.D. Cal. Feb. 13, 2007) (unpublished) (same).

In particular, the central Aleutian Islands communities of Atka and Adak could be significantly affected by fisheries closures and restrictions. The NPFMC recognized these communities' dependence on the processing of Pacific cod in their December 2009 RIR that would have established Aleutian Islands Pacific cod processing sideboards. NPFMC, Initial Review Draft RIR/EA/Initial Regulatory Flexibility Analysis for a Regulatory Amendment to Establish Aleutian Islands Pacific Cod Processing Sideboards (Dec. 2009), *available at* [http://www.fakr.noaa.gov/npfmc/current issues/pcod/AIcodsideboards1209.pdf](http://www.fakr.noaa.gov/npfmc/current%20issues/pcod/AIcodsideboards1209.pdf). Community representatives from Adak and Atka state throughout NPFMC proceedings that processing Pacific cod in high volume is necessary for cod operations to be viable, regardless of whether processing occurs onshore or on a floating processor, and that processing capacity is necessary for long term viability of the community.

The processing sideboard RIR describes efforts of the Aleut Corporation to develop Adak into a "commercial center and civilian community with a private sector" as "focused heavily on commercial fishing." Dec. 2009 RIR at 37. The existing onshore processing facility in Adak has been heavily reliant on Pacific cod processing, with 75% of its revenues coming from the A season Pacific cod fishery supporting a year-round market in the area. Additionally, raw fish tax on Pacific cod was the main source of revenue for the City of Adak. Fuel sales also provide an important revenue stream and support for local fuel requirements. This economic activity could be lost if the local fisheries are insufficient to support a market in the area.

Although not as dependent as Adak and Atka on Pacific cod from the area affected by the proposed RPA, other communities in the region, such as Dutch Harbor and Akutan in the Aleutian Islands and King Cove, Sand Point, and Chignik in the Gulf of Alaska benefit from catcher vessel deliveries of Pacific cod from the Aleutian Islands area and will be affected by associated economic impacts of closing and restricting fisheries.

The EA/RIR also fails to adequately address Alaskan Native and environmental justice concerns that are likely to be significant in this case. Of the fisheries that will be closed or restricted under the proposed RPA, a percentage of total allowable catch is allocated to the Community Development Quota ("CDQ") Program designed to improve the social and economic conditions in western Alaska communities by facilitating participation in the Bering Sea and Aleutian Island fisheries. EA/RIR, at 10-25. Sixty-five communities participate in the program. *Id.* These communities are home to 27,000 people, of whom 87% are Alaskan Native. *Id.* at 10-26. The communities participating in the program have few economic opportunities, chronically high unemployment rates, and are economically depressed. The CDQ program provides some relief by allowing these communities to benefit directly from fisheries by investing resources in

necessary community infrastructure and providing employment opportunities to local residents. *Id.*

The EA/RIR acknowledges that groups receiving CDQ funds are likely to be adversely affected by the closure of and restrictions on fisheries, particularly the Atka mackerel fishery. *Id.* at 10-81. However, there is no discussion of what this loss of funding will mean for the 65 communities that benefit from the CDQ program and more specifically Alaskan Native populations. NMFS has not fully considered the potentially significant environmental justice implications of the proposed RPA, which may disproportionately affect low-income, minority populations in the western and central Aleutian Islands. *See* Executive Order 129898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7629 (Feb. 11, 1994); CEQ, Environmental Justice, Guidance Under NEPA (Dec. 10, 1997).

NMFS must take a “hard look” at these significant socioeconomic and environmental justice concerns in an EIS, providing appropriate notice and opportunity for public comment before implementing the proposed RPA or any other alternative with potential to devastate local economies and possibly an entire region.

## **VII. Conclusion**

Thank you for the opportunity to comment on the NMFS’ Draft BiOp for BSAI and GOA groundfish fisheries. The State’s fundamental concern is that NMFS’ jeopardy and adverse modification findings apply an incorrect legal standard and are not supported by the available information. That information indicates that declines in Stellar sea lion numbers in the western and central Aleutian Islands are not a result of nutritional stress caused by federal fisheries management measures. NMFS’ nutritional stress theory, and as a result its proposed RPA, are based on speculation without an adequate rational basis in the record documenting the required rational relationship between the facts found and the decision made by NMFS. Further, the jeopardy and adverse modification opinions are based on effects to only two sub-populations of the western Stellar sea lion DPS, in violation of the ESA, NMFS policy, and applicable case law.

Despite the lack of data supporting NMFS’ nutritional stress theory, NMFS has proposed an RPA with real and severe consequences for the small coastal communities in the Aleutian Islands that depend on local fisheries to support the economic base. NMFS’ EA/RIR for the proposed RPA, which is admittedly incomplete, fails to take a “hard look” at these potentially significant socioeconomic impacts. The EA/RIR also fails to consider reasonable alternatives more narrowly tailored to conserve fishery resources for Stellar sea lions while providing opportunities for local fishing fleets.

The State of Alaska requests that NMFS reconsider its jeopardy and adverse modification opinions in light of the available scientific information. At the very least, the State requests that NMFS prepare a revised RPA more narrowly focused on those fishery resources that are most

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likely to provide a prey base for the western and central Aleutian Steller sea lion populations. NMFS must also prepare an EIS to consider the significant impacts to local fishing economies of its revised RPA. Finally, NMFS should provide an additional opportunity for review of the revised RPA and EIS that allows sufficient time for meaningful public comment. Any final rule promulgating revisions to groundfish fisheries management must be made pursuant to required APA and MSA “notice and comment” rulemaking procedures.

The State of Alaska looks forward to continuing to work collaboratively with NMFS to manage fisheries for the conservation of listed species. If you have questions about these comments or would like further clarification, please contact me by email at [douglas.vincent-lang@alaska.gov](mailto:douglas.vincent-lang@alaska.gov) or by phone at (907) 267-2339.

Sincerely,



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cc: Randy Ruaro—Deputy Chief of Staff  
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