AGENDA C-3
Supplemental
APRIL 2013

Subject: Agenda Item C-3
From: "Tracy Chandler" <ttc3x3@gmail.com>
Date: 3/6/2013 3:44 PM
To: <npfmc.comments@noaa.gov>

January 27,2013

Re: Agenda Item C-3

Council Members:

My name is Tracy Chandler, I am writing as a member of the Kodiak Fishing Community. My family has fished the GOA out of Kodiak since the mid-seventies. Kodiak is my home.

The Magnusen-Stevens Fishery Conservation and Management Act Sec.301, 98-623, (2) states, "Conservation and management measures shall be based upon the best scientific information available".

I feel you have strayed from this mandate. You have allowed popular opinion to influence your management of Alaska's fisheries, which would be acceptable if it weren't in direct opposition to available science.

I'm sure it must be difficult at times to go against public opinion in favor of what is best for our fisheries. Your seats are appointed, instead of elected, for this very reason.

My family, as well as my community, rely on healthy, well-managed fisheries. Please stop playing politics with our livelihood and do the job you have been appointed to do.

Regards,

Tracy Tormala Chandler
Kodiak, Alaska

OCEANA | Protecting The World's Oceans.

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March 26, 2013

Mr. Eric Olson, Chair
North Pacific Fishery Management Council
605 W. Fourth Avenue, Suite 306
Anchorage, AK 99501-2252

Dr. James Balsiger, Regional Administrator
NOAA Fisheries, Alaska Region
709 West Ninth Street
Juneau, AK 99802-1668

Re: Agenda Item C-3: Steller Sea Lion EIS

Dear Chairman Olson, Dr. Balsiger, and Council Members:

The National Marine Fisheries Service (NMFS) has released its draft environmental impact statement (EIS) evaluating potential management changes in the BSAI groundfish fisheries. This draft considers only four alternatives—the status quo and three alternatives that reduce existing protections. As we made clear in previous testimony and correspondence, the choice to consider only alternatives that allow more fishing does not comply with the law or the Council and agency's stated commitments to moving toward ecosystem-based management. Moreover, by continuing the ongoing litigation and controversy about this issue, NMFS's approach is likely to divert attention and resources that could be used moving forward toward better management of our ocean resources. The Council still has the opportunity to prevent this from happening by encouraging NMFS to evaluate an alternative in the final EIS that includes additional protections, like those we have suggested previously, for sea lions and the ecosystem.

Our February 25, 2013 letter explainining these issues in more detail is attached. We look forward to working with you on this and other important issues related to restoring and maintaining the health, productivity, and biodiversity of the North Pacific marine ecosystem, fishing opportunities, and vibrant coastal communities.

Sincerely,

Susan Murray
Deputy Vice President, Pacific
Oceana

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February 25, 2013

Dr. James Balsiger, Regional Administrator
NOAA Fisheries, Alaska Region
709 West Ninth Street
Juneau, AK 99802-1668

Dear Dr. Balsiger:

The Alaska Region of the National Marine Fisheries Service (NMFS) has been a leader in the movement toward ecosystem-based management. As it prepares the environmental impact statement (EIS) evaluating potential management changes in the Bering Sea/Aleutian Islands (BSAI) groundfish fisheries, *see* 77 Fed. Reg. 22750 (April 17, 2012), the agency appears poised to take a substantial step backward. Rather than evaluating a broad range of alternative measures that include additional protections for Steller sea lions and encourage improvement in management of the marine ecosystem, NMFS will consider only four alternatives in the EIS—the status quo and three alternatives that reduce existing protections. This choice to consider only alternatives that allow more fishing contravenes the agency's clear mandate under the law, limits the agency's flexibility, and is almost certain to continue the cycle of litigation and controversy surrounding the impacts of the industrial groundfish fisheries on Steller sea lions. We encourage you to reconsider your decision and to include an alternative that would provide additional protections for Steller sea lions.

The National Environmental Policy Act (NEPA) makes it very clear that federal agencies must "rigorously explore and objectively evaluate all reasonable alternatives" to a proposed decision with potentially significant environmental consequences. 40 C.F.R. § 1502.14(a). The study of alternatives to an agency's proposed course of action is the "heart" of an EIS. *City of Carmel-by-the-Sea v. U.S. Dep't of Transp.*, 123 F.2d 1142, 1155 (9th Cir. 1997) (quoting 40 C.F.R. § 1502.14). Therefore, "'[t]he existence of a viable but unexamined alternative renders an environmental impact statement inadequate.'" *Natural Resources Def. Council v. United States Forest Serv.*, 421 F.3d 797, 813 (9th Cir. 2005) (quoting *Citizens for a Better Henderson v. Hodel*, 786 F.2d 1051, 1057 (9th Cir. 1985)); *see also Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 812-15 (9th Cir. 1999) (finding a decision arbitrary where the agency failed to consider an alternative that would meet the same basic policy objective). An agency cannot refuse to consider a viable alternative for arbitrary reasons. *See 'Ilio 'Ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1099-1101 (9th Cir. 2006) (where justifications for refusing to consider alternatives were invalid, the refusal to consider alternatives violates NEPA).

As we have made clear in previous correspondence and testimony, simply evaluating alternatives that alter or amend the existing protections to allow more fishing does not satisfy this obligation. The status quo management measures, which are the most protective alternative NMFS has included for analysis in the EIS, include new restrictions only in the far western Aleutian Islands. These measures were implemented as the reasonable and prudent alternative (RPA) resulting from the agency's conclusion in 2010 that the groundfish fisheries, as then managed, did not comply with the Endangered Species Act (ESA). There very clearly are different—and more

protective—measures that are consistent with the agency's stated purpose and need and that must be analyzed in the EIS. In fact, several of these measures were considered during the agency's consultation process.

Documents made available pursuant to the ongoing litigation challenging the current protections reveal that, during the consultation process, NMFS considered alternative measures that were more protective than those finally implemented. The RPA proposed in earlier drafts of the Biological Opinion (BiOp), for example, included several important management changes that were not carried forward to the final RPA. *See, e.g.*, NMFS Draft 2010 Groundfish Biological Opinion (March 2010).[1] For example, the RPA in the March 2010 Draft BiOp included additional restrictions for Atka mackerel and Pacific cod fishing in the western Aleutian Islands and reduced catches of pollock and cod in critical habitat around Kodiak Island to address the observed declines there. *Id.* at 8-15 to 8-16. This draft also reiterated the necessity of continuing to prohibit directed fishing for pollock in critical habitat in the Aleutian Islands. *Id.* at 8-17. Two of the four alternatives currently being considered by NMFS would allow fishing for pollock in critical habitat; these areas have been closed for at least a decade.

Importantly, the RPA in the March 2010 Draft BiOp also included a provision requiring the agency to "[r]evise the Harvest Management Strategy (e.g., optimum yield, harvest control rules, tier system) for exploited groundfish forage species (pollock, Atka mackerel, and Pacific cod) that explicitly incorporates the needs of non-exploited apex predators (e.g., marine birds, marine mammals), and in particular, the needs of ESA listed species to meet their recovery goals." *Id.* at 8-17. That RPA also required the agency to "[d]evelop a compensation mechanism to adjust the federal catch as state water catches increase, with the goal of ensuring overall adequate prey resources . . . for Steller sea lions." *Id.*

Further, the environmental assessment (EA) prepared by NMFS when it implemented the existing protection measures included four alternatives: the pre-2010 protections, the RPA as implemented, and two alternatives that would have provided for additional protections—the RPA described in the July Draft BiOp, and an "enhanced conservation" approach. *See* Revisions to the Steller Sea Lion Protection Measures for the Bering Sea and Aleutian Islands Management Area Groundfish Fisheries EA/RIR, *ii-vii* (November 2010). The RPA described in the July Draft BiOp includes restrictions above and beyond those ultimately implemented on the Atka mackerel and Pacific cod fisheries in the western Aleutian Islands. *Id.* at *iii-v*. The "enhanced conservation" alternative went even further and would have closed areas 542 and 543 to directed fishing for Atka mackerel and Pacific cod, closed directed fishing for Pacific cod in critical habitat in area 541, and closed directed fishing for Pacific cod in a critical winter period. *Id.* at *ii-iii*. The final RPA—the measures ultimately implemented and now the most restrictive alternative to be considered—were described in the EA as the measures from the July 2010 Draft BiOp as modified based on input from, among others, the North Pacific Fishery Management Council, and designed to "provid[e] additional opportunity for fishing inside critical habitat for the Atka mackerel and Pacific cod fisheries." *Id.* at *v*.

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[1] This document is included in the administrative record for *Alaska v. Lubchenco*, No 3:10-cv-00271-TMB (D. Alaska Jan. 19, 2012), at BIOP015507-015941.

In sum, it appears that the suite of protections ultimately implemented by NMFS was the least restrictive even considered by the agency during the consultation process. As we have made clear in comment letters and other correspondence, these changes do not address lower natality across the population and represent only an incremental, minimum step to address the most serious declines. There is no persuasive reason to now treat them as the most restrictive measures.

Further, while measures other than those currently in place may satisfy NMFS's obligations under the Endangered Species Act, there is no scientific information about the fisheries or Steller sea lions that could justify new measures simply allowing more fishing without a coincident increase in other protections. In fact, conditions for Steller sea lions in some parts of their range appear to be worsening. The latest information shows that sea lions continue to disappear from the western Aleutian Islands, tagged sea lions are ranging further to feed than previously expected, and populations of Atka mackerel, cod, and pollock are declining. All four models prepared for the 2012 draft assessment for the stock of Pacific cod in the Aleutian Islands indicate a declining biomass trend, and all four suggest that there is a significant probability that the stock is currently overfished and possibly even below the B20 threshold. Similarly, the Atka mackerel population in the Aleutian Islands is on a downward trend, and the recent stock assessment suggests that the Allowable Biological Catches from the previous several few years were overly optimistic. Ultimately, it is likely that more protection, not more fishing, is needed.

Oceana and others have provided concrete suggestions for changes to the existing management that should be evaluated in the NEPA process. In particular, Oceana has participated in good faith during development of the EIS and has provided specific steps that could be evaluated as part of an alternative that moves toward determining how to account for the Aleutian Islands ecosystem as a whole in making management choices. This alternative would involve considering revisions to the harvest management strategy for important prey species, including the optimum yield calculation, harvest control rules, and tier system, to explicitly incorporate the needs of apex predators. Such an alternative would maintain the existing protection measures and include additional steps, such as:

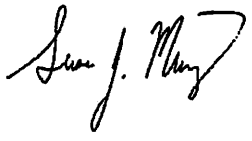
- Committing to managing Pacific cod in the Bering Sea and Aleutian Islands as two separate stocks;
- Establishing a maximum yield cap for the Aleutian Islands;
- For prey species in the Aleutian Islands, setting OY so that biomass is predicted to increase to B60 over a 20-year time horizon;
- Modifying the global control rule for prey species so that α is 0.75 and fishing is stopped at B30 for fisheries in the Aleutian Islands;
- Committing to a formal implementation strategy for aspects of the Aleutian Islands Fishery Ecosystem Plan, such evaluating options to incorporate predator needs in the TAC-setting process; and

- Protecting important habitat, such areas around rookeries and haulouts in the Pribilof Islands.

The refusal to consider measures like these is not consistent with NEPA and serves only to limit the agency's flexibility in selecting a preferred alternative while continuing the cycle of controversy and litigation. We hoped for better.

In light of all of the information about the Aleutian Islands ecosystem and the effects of large-scale fishing, neither the law nor common sense allows NMFS and the Council to analyze only alternatives that allow more fishing without measures to benefit sea lions. We encourage you to rethink your refusal to consider more protective measures and to take steps to move us forward toward a lasting a solution in the Aleutian Islands. The choices you make about how to address the impacts of large-scale commercial fisheries and how to protect Steller sea lions could continue your leadership and help to move toward ecosystem-based management in the Aleutian Islands as envisioned in the Aleutian Islands Fishery Ecosystem Plan. We look forward to working with you on this and other important issues related to restoring and maintaining the health, productivity, and biodiversity of the North Pacific marine ecosystem.

Sincerely,



Susan Murray
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March 26, 2013

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P.O. Box 21668
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Via Email and U.S. Mail

Re: April 2013 NPFMC Agenda Item C-3, Steller Sea Lion EIS

Dear Chairman Olson and Dr. Balsiger:

We write on behalf of Alaska Seafood Cooperative ("AKSC") to comment on the process for completing the environmental impact statement ("EIS") for Steller sea lion mitigation measures.

AKSC appreciates the opportunity to comment on this preliminary draft, but continues to have concerns that the process outlined for completion of the EIS may not lead to the development of a high quality EIS that clearly and objectively outlines the impacts of any future decision for the North Pacific Fishery Management Council ("Council") and the public. We hope that our comments will help with revisions in the draft EIS that lead to informed public comment and discussion. We summarize two key comments on the preliminary draft EIS ("PDEIS") below, and provide additional detail in the enclosed memorandum.

At its October 2012 meeting, the Council passed a motion requesting re-consultation under the Endangered Species Act ("ESA"), based on the significant new scientific information since the 2010 FMP Biological Opinion was issued, such as that provided by the independent scientific reviews and the post-2010 Steller sea lion surveys. In December 2012, AKSC provided the Council with a letter outlining its concerns about the interaction between the EIS and any new ESA consultation and the EIS scoping process. The Council took action at the December meeting requesting that NMFS provide a transparent and scientifically rigorous EIS. We understand that the Council is being asked by the agency to select a preliminary proposed alternative ("PPA") at this meeting. Having participated in the Steller Sea Lion Mitigation Committee ("SSLMC") meeting and reviewed the PDEIS, it appears to AKSC that the Council is

being asked to take that action without the benefit of the scientifically rigorous analysis that it requested in December.

The current preliminary draft of the EIS before the Council ignores the single largest area of controversy: the now discredited scientific methods and conclusions of the 2010 FMP BiOp as critiqued by the independent scientific peer reviews conducted on behalf of NMFS by the Center for Independent Experts and the Independent Scientific Review Panel convened by Alaska and Washington (collectively, the "Independent Reviews").

The PDEIS simply accepts and continues to rely upon the flawed science underlying the 2010 BiOp. NMFS continually refers to and incorporates by reference the scientifically flawed BiOp without any correction to the numerous deficiencies identified by the two review panels. In so doing, NMFS is not using the best science available in its analysis and is not providing the public and the Council the information needed to make a reasoned and informed choice between alternatives. This problem will be compounded by the approach used by NMFS in any ESA re-consultation.

Further, Protected Resources has affirmed that the standards by which they will be evaluating RPA alternatives will not be included in the EIS but would be part of a later biological opinion. This is inconsistent with NMFS' policy of coordinating and, where practicable, conducting ESA consultations simultaneously with NEPA reviews. NMFS has also indicated that they might be able to provide some guidance to the Council as to whether the PPA avoids jeopardy and adverse modification, but not until the October 2013 meeting—long after the comment period closes on the draft EIS and its alternatives.

The agency is setting up a process where the public's comments, and the Council's evaluation of alternatives and development of an RPA, will be done before all of the information needed to make an informed decision are available to the Council and the public. If this path continues to be followed, it threatens to turn this EIS into an empty exercise.

Recommendation

We again recommend that the draft EIS include an analysis of the potential impacts of fishing on sea lions, their prey, and critical habitat, and incorporate the findings and recommendations of the Independent Reviews into this analysis in a clear and concise manner. Such an analysis is required in order for the EIS to meet the order to "take a hard look at the environmental effects" of the Interim Final Rule and each of the alternatives. We also strongly request that the draft EIS include a stand-alone summary of the Independent Reviews, and a point by point response to the issues raised by the reviews. Without these analyses, the EIS will not be based on the best scientific information; nor will the decisions that flow from the EIS analysis.

In short, the current preliminary draft of the EIS does not yet present the information necessary to understand the environmental impacts of the alternatives, and fails to sharply define the issues and provide a clear basis for choice among the alternatives.

We appreciate the continued hard work by NMFS and Council staff on these difficult and complex issues, and AKSC and its members look forward to continuing to work with you on development of the EIS.

Sincerely,

Linda R. Larson

Linda R. Larson

Enclosure

ALASKA SEAFOOD COOPERATIVE
Wild Seafood Harvested Responsibly

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To:	North Pacific Fishery Management Council and NOAA Fisheries
From:	Alaska Seafood Cooperative
Date:	March 26, 2013
Subject:	April 2013 NPFMC Agenda Item C-3, Steller Sea Lion EIS

Alaska Seafood Cooperative's Background and Interest

Alaska Seafood Cooperative ("AKSC"), formerly the Best Use Cooperative, is a group of catcher processor fishing companies interested in working to improve the management of Bering Sea flatfish and other non-pollock groundfish fisheries. AKSC comprises most companies involved in the Bering Sea flatfish fishery. They include Fishermen's Finest, Inc., Cascade Fishing Co., Ocean Peace, O'Hara Corporation, Iquique US, and United States Seafoods.

Criticisms of the Preliminary Draft Environmental Impact Statement: Overview

AKSC appreciates the opportunity to provide pre-preview comment on this preliminary draft. We hope to help identify concerns as the process continues so those can be addressed before the draft EIS is issued. Toward that end, we provide the following general criticisms of NMFS' Preliminary Draft Environmental Impact Statement (the "PDEIS") on SSL Protection Measures for BSAI Management Area Groundfish Fisheries, dated March 2013. Specific support for each of these criticisms is provided below, in Sections I-VI.

1. **Failure to analyze or incorporate findings of the independent scientific reviews of the 2010 FMP BiOp.** In the PDEIS, NMFS mentions but fails to actually incorporate the scientific substance of the independent scientific peer reviews conducted on behalf of NMFS by the Center for Independent Experts ("CIE") and the Independent Scientific Review Panel convened by Alaska and Washington (collectively, the "Independent Reviews" or "Reviews"). Those two separate scientific peer review processes, conducted by seven independent scientists (the "Independent Reviewers"), were highly critical of the scientific methods and findings of the 2010 FMP BiOp. NMFS has yet to adequately explain its basis for accepting or rejecting those Reviews, or for continuing to rely on the controversial and unsupported science underlying the 2010 FMP BiOp.

2. **Omission of critical information.** The PDEIS omits key metrics—namely, which criteria will guide the agency's ESA "jeopardy" and "adverse modification" ("JAM") determinations. Those criteria will in turn define the scope of "reasonable" alternatives to be considered in the EIS. The agency's backwards sequence—EIS, then re-consultation—threatens to render the NEPA process meaningless, and certainly of little use to a future ESA consultation. Per NEPA regulations and NMFS' NEPA guidance, re-consultation should occur concurrently with the EIS process. Neither the Council nor the public have any way of determining whether the alternatives are "reasonable" under NEPA when the relevant metrics are withheld from public view. NMFS must clearly identify those metrics before requiring the Council to make any decisions regarding preferred alternatives. Not doing so would disrupt the NEPA process, compromise the goal of informed decisionmaking and public evaluation, and violate the statute and Judge Burgess' orders.

3. **Failures in public process.** Previously, NMFS failed to respond to and meaningfully incorporate public comments on the draft 2010 FMP BiOp (as promised). NMFS also failed to do a CIE review on the draft BiOp (as scheduled). NMFS incorporated very little of the Council motion into the final BiOp (the final BiOp/RPAs were largely unchanged from the draft). NMFS also failed to respond to public comment on the Interim Final Rule ("IFR"). Since the imposition of the IFR, there have been several major public processes (Independent Scientific Review Panel, a belated CIE Review, SSLMC/NPFMC process, and the EIS scoping process). Each of these public processes has brought forth significant new scientific information and analyses that NMFS has failed to meaningfully incorporate into the PDEIS. NEPA requires the agency to "*rigorously explore and objectively evaluate*" and "*devote substantial treatment to each alternative in detail...so that reviewers may evaluate their comparative merits.*" The PDEIS fails to meet that mandate as well as the Alaska federal district court's admonition to take a "hard look" at the action and involve the public in the decisionmaking process.

Specific Criticisms of the PDEIS

I. The PDEIS is too narrow

On January 18, 2012, Alaska Federal District Court Judge Burgess ruled "*NMFS violated NEPA by failing to prepare and EIS and adequately involve the public in the agency's decision making process.*"[1] On March 5, 2012, the Court held that "*NMFS did not take a 'hard look' at the environmental consequences of the action or adequately involve the public in its decision-making process as Congress intended.*"[2] The Court ruled that these NEPA violations by NMFS were significant and caused irreparable harm and that "*the harm is exacerbated by the fact that the restrictions may continue indefinitely.*"[3] The Court determined that the conclusions by NMFS regarding the potential effects of the action were both highly controversial and uncertain. The Court instructed the defendants to prepare an EIS that complies with applicable law and

[1] *Alaska v. Lubchenco*, No. 10-271, Dkt. 130 at 3-4, 55 (Jan. 19, 2012).
[2] *Alaska v. Lubchenco*, No. 10-271, Dkt. 142 at 6 (March 5, 2012).
[3] *Id.*

addresses the deficiencies in the summary judgment order. The Court also stated that "*if it were to completely excuse NMFS's violations here, such lack of compliance might very well become routine, further undermining Congress's intent in enacting NEPA.*"[4] That routine appears to be occurring again now.

To meet NEPA's requirements, draft EISs must be prepared "in accordance with the scope decided upon in the scoping process" and, to the greatest extent possible, meet requirements for final EISs.[5]

In our October 15, 2012 scoping comments, we raised multiple issues necessary for consideration in the EIS. Many of these relate to the Independent Reviews, which qualify as "significant new scientific information" under the ESA. As explained last year, the Reviews required the agency to re-initiate consultation under the ESA last year, concurrently with its development of the EIS.

While the agency did not follow that procedure, its scoping report does identify the Independent Reviews, providing that they "were considered by NMFS in the development of this EIS and for future biological opinions."[6] However, neither the Independent Reviews nor the other significant new scientific information that has resulted from multiple public processes were sufficiently incorporated into the scoping report or the PDEIS. The PDEIS does not correct the deficiencies, reduce uncertainty, or reflect meaningful evaluation of alternatives.

II. The PDEIS Lacks an Adequate Evaluation of the Largest Area of Controversy: The Independent Criticisms of the Science Underlying and Conclusions Made in the 2010 FMP BiOp

A. NMFS Must Adhere to the Rigorous Scientific Standards Imposed by NEPA and Other Environmental Review Statutes

In the EIS process, NMFS must "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."7 During this process, "agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement."[8]

The Independent Reviews are vital to the agency's ability to fulfill this mandate. Yet they are not incorporated in the PDEIS. They are not included as appendices to the PDEIS. The PDEIS

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[4] *Id.*
[5] 40 C.F.R. § 1502.9(a).
[6] NMFS, SSL Scoping Report (Nov. 2012) at 11.
[7] 42 U.S.C. § 4332(2)(E).
[8] 40 C.F.R. § 1502.24.

does not provide even cursory summaries of their contents. It only provides a meaningless hyperlink to the Independent Reviews. The Executive Summary does not include a single reference to the Independent Reviews—even in the section describing the history of the events leading to the EIS. Chapter One devotes only one page to the Reviews. In fact, in the entire PDEIS, there appears to be only one quote from Independent Reviewers.[9]

The Independent Reviewers were harshly critical of the 2010 BiOp. They concluded that the JAM determination and conclusions in the BiOp were not supported by the best available scientific information (the "Best Science") and that the RPAs (fishery management restrictions) were not warranted. The Reviewers also found no evidence of fishery-induced nutritional stress (i.e. no risk to SSLs from fishing).

B. NMFS Continues to Rely on Studies and Conclusions Now Known to be Deeply Flawed

The PDEIS simply accepts and continues to rely upon the flawed science underlying the 2010 BiOp. NMFS continually refers to and incorporates by reference the scientifically flawed 2010 BiOp without any correction to the numerous deficiencies identified by the two review panels. Without providing scientific evidence, NMFS then determines that the indirect effects of fishing still pose a threat to SSLs. This assertion is attributed to the 2008 Recovery Plan: "*competition with fisheries is believed to be a threat to the survival and recovery of the western SSL population (NMFS 2008).*"[10] This "belief" does not represent the Best Science, nor does it reflect recent information and population trends.

This "belief" (without scientific evidence) then becomes the basis of the PDEIS: "*This NEPA analysis assumes that fisheries removal of prey may adversely affect the western population of the SSL as determined by NMFS (2010a* –i.e. the 2010 BiOp)."[11] So the document (2010 BiOp) that was found fundamentally flawed by both scientific peer reviews is the basis for the belief becoming the assumption. Again the 2010 BiOp does not represent the best scientific information nor recent information and population trend.

NMFS then takes this flawed logic train to the next station and states: "*Our logic further assumes that incremental increases in prey removals and opening more areas of critical habitat, relative to status quo, could have incremental adverse effects on prey availability for SSLs.*"[12]

In light of the Independent Reviews, these assumptions are without scientific basis. NMFS then states, "*At this point it is not possible to determine the population level effects to SSLs from the indirect effects of fishing from prey removal through this NEPA analysis.*"[13]

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[9] *See* PDEIS at 5-101 and 5-102 (Stokes, on using caution in the use of the 10 statistical studies in Bernard 2011).
[10] PDEIS at 5-71.
[11] *Id.*
[12] *Id.*
[13] PDEIS at 5-70.

The difficulty in determining or quantitatively measuring the effect may be due to the fact that there is no effect—as was found by the Independent Reviewers:

Bowen: *"Overall, I conclude there is no evidence for the hypothesized indirect effects of the identified fisheries on the availability of food to SSL."* (p. 8). *"There is no direct evidence that by removing fish, these fisheries compete with the western population of SSL in the central and western Aleutians or elsewhere."* (p. 9)

Stewart: *"There was no new data presented to support the hypothesis that the commercial groundfish fisheries in the BSAI and GOA have caused, are causing or may cause nutritional stress to SSLs. This hypothesis remains unsupported."* (p. 13)

Stokes: *"It is found that the evidence for fishery-induced nutritional stress is weak."*(p.3). *"Evidence against* [nutritional stress] *is essentially dismissed while evidence not inconsistent with the hypothesis is given weight."* (p. 15)

In the PDEIS, NMFS declined to quantitatively assess the impacts, so there is no measure of the significance or even the presence of a measurable impact on SSLs due to the indirect effects of fishing on prey removal. Without establishing the presence or quantification of the impacts, the PDEIS contains no valid method of comparing the relative merits of the alternatives. Instead, the PDEIS assumes there is an impact based on NMFS' prior "belief." Further, the PDEIS finds the significance or magnitude of the impact is irrelevant, and the belief that it may exist at any level (no matter how insignificant) is sufficient.

The resulting comparison of alternatives made by NMFS (more likely/less likely) is then without any meaningful scientific or real world reference. Without any quantification of the impact, the comparison might as well be "more ridiculous/less ridiculous".

The NEPA handbook states that quantification of impacts is standard practice for many types of impact analysis and numerical measurement can highlight the differences in impacts between various alternatives. While NEPA regulations do not mandate quantitative analysis "*EISs are most useful when federal agencies strike a balance between quantitative analysis and qualitative judgments when drawing conclusions about the significance of environmental impacts.*"

The PDEIS strikes no such balance. The assumption by NMFS that there is an effect from indirect effects of fishing on the prey field is contravened by the Best Science (the Independent Reviews). Even if NMFS wants to assume there is a potential adverse effect, it is not relieved from assessing the significance of the effect. The qualitative only method provided for comparing the impacts of the alternatives in the PDEIS does not provide reviewers with the ability to evaluate the comparative merits of the alternatives.

C. NMFS' Discussion of the Independent Reviews Falls Far Short of NEPA Compliance

NMFS acknowledges the existence of the Reviews in the PDEIS.[14] The agency states that it "considered" the Independent Reviews and their contents in the PDEIS.[15] However, the PDEIS reflects no meaningful consideration.

These scientific peer reviews were consistent in their strong criticism of the scientific information, analytical methodologies, performance standards, and findings of the 2010 FMP BiOp. Despite their significant critiques, NMFS states in the PDEIS that "[n]o new information was identified during scoping on this EIS that would lead to different performance standards."[16] The meaning of this statement is unclear. Does the agency mean that, based on its review of data available through December 14, 2012—including the Independent Reviews—NMFS' performance standards for measuring jeopardy risk remain unchanged? Does it mean that NMFS considers the remainder of its conclusions in the FMP BiOp to be valid, despite the serious and well-supported criticisms leveled by each Independent Reviewer? If so, NMFS must explain its reasoning in a clear and concise manner in the PDEIS. If not, NMFS must significantly revise the PDEIS to reflect a more substantive evaluation of the Independent Reviews and how those Reviews have changed NMFS' conclusions in the 2010 BiOp.

In Chapter 5, NMFS provides some superficial discussion of the independent reviewers' criticisms of and disagreements with the FMP science—possibly only to presage its likely rejection of the studies underlying the Independent Reviews.[17] NMFS acknowledges the conflicting results and disagreement over whether fisheries have an impact on SSL prey resources, and states that it is "currently undertaking a review and analysis for the preparation of future Section 7 consultations."[18] The agency states its intention to "perform a small simulation . . . to test" the analyses used in the Independent Reviews.[19] It will not apparently consider "additional concerns" raised by the Independent Reviews, however, until "future ESA Section 7 consultations."[20]

Yet in the same sentence, the agency states that such additional, unstated concerns "have been considered in the development of this EIS."[21] If the agency evaluated specific criticisms identified in the Reviews, then it must disclose its conclusions and analysis on those issues early

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[14] *See, e.g.*, PDEIS at 1-11 to 1-13, 1-17 to 1-21.
[15] *See* PDEIS at 1-17 to 1-18.
[16] PDEIS at 1-21.
[17] *See* PDEIS at 5-98 to 5-102.
[18] PDEIS at 5-100 to 5-102. The PDEIS only ranks the alternatives simplistically (i.e., assuming that fishing in SSL critical habitat without doubt causes more negative effects on SSL). Thus, NMFS ignores (or rejects, without explanation) the Independent Reviewers' challenges to the science behind the 2010 BiOp's argument that fishing is harming SSLs.
[19] PDEIS at 5-102.
[20] *Id.*
[21] *Id.*

in the NEPA process to inform the public. NEPA requires an agency to explain the reasoning and analysis for its conclusions, not just state the conclusions and sources used.

Without a review of the science underlying the 2010 FMP BiOp and the criticisms thereof, neither the public nor the Council can understand the biological basis for the alternatives. "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action."[22] Thus, at minimum, the DEIS should contain a section identifying the findings of the 2010 BiOp and the criticisms set forth in the reviews, followed by the agency's resolution of each controverted issue and its reasoning therefor.

The Reviews must be reflected in and meaningfully incorporated into the EIS process as well as future consultations. Not doing so in the NEPA process violates the statute and court orders, and is arbitrary and capricious.

III. NEPA Requires Agencies to Disclose Relevant Information and Standards Before They Make Decisions

NEPA mandates that its:

> procedures must insure that environmental information is available to public officials and citizens **before decisions are made and before actions are taken.** The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.[23]

NEPA requires EISs to "inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment."[24] The alternatives section, "the heart of the [EIS]," must "present the environmental impacts of the proposal and the alternatives in comparative form, . . . sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public."[25] EISs must "[i]dentify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference."[26]

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[22] 40 C.F.R. § 1502.9(a).
[23] 40 C.F.R. § 1500.1(b) (emphasis supplied).
[24] 40 C.F.R. § 1502.1.
[25] 40 C.F.R. § 1502.14.
[26] 40 C.F.R. § 1502.14(e). *See also* NOAA Admin. Issuance 216-6, Environmental Review Procedures for NEPA Implementation at section -.04(b)(3) (May 20, 1999) ("NAO 216-6") ("When preferred alternatives do not exist, the document must provide a range of alternatives or other indication of the

A. ESA Consultation Must Run Concurrently with EIS Development, and Both Processes Must Include Review and Analysis of the Independent Reviews

Agencies must "[i]ntegrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively."[27] Accordingly, "[t]o the fullest extent possible, agencies shall prepare draft [EIS]s concurrently with and integrated with environmental impact analyses and related surveys and studies required by the . . . the [ESA] . . . and other environmental review laws and executive orders."[28]

NMFS has not yet meaningfully assessed the Independent Reviews or re-evaluated the 2010 BiOp based on their contents; nor has it apparently decided what criteria will guide its JAM conclusions. The agency explains that there is controversy over interpretation of science and law in fisheries management, and commits to consider specific "areas of controversy" identified at page ES-59 (including, among others, SSL foraging ratios and fisheries' effects on SSL prey).[29] Yet the agency goes on to state that:

> the primary unresolved issue is whether the preferred alternative in the EIS meets NMFS's mandate to ensure the proposed action is not likely to jeopardize [SSL]s or adversely modify critical habitat. The proposed action is based on the preferred alternative that would be a combination of management measures analyzed in this EIS. This is an issue that cannot be resolved by this EIS alone. This EIS presents the environmental impacts of the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among the alternatives. However, it is the consultation process under the ESA that determines whether a specific proposed action is not likely to jeopardize an ESA-listed species or adversely modify critical habitat. NMFS determined in the FMP biop that the status quo alternative in this EIS ensures the management of the groundfish fisheries in the Aleutian Islands is not likely to jeopardize [SSL]s or adversely modify their critical habitat. To understand whether the preferred alternative recommended from this EIS process ensures the management of the Aleutian

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alternatives most likely to be selected, thus informing the public of the likely final action and its environmental consequences. The public is thus able to more effectively focus its comments.").

[27] 40 C.F.R. § 1500.2(c).

[28] 40 C.F.R. § 1502.25(a). NMFS' NEPA guidance also encourages concurrent processes to ensure complete and orderly public review. If NMFS is delaying publication of key standards to allow for ESA consultation on those standards, that timing is inconsistent with the agency's guidance. *See* NAO 216-6 at -.04(b)(c) ("Environmental review and procedures should run concurrently with other public review and comment periods (e.g., the FMP development and review process). The DEIS should be ... made available for public comment no later than publication of other required documents (e.g., the public hearing draft FMP/amendment).").

[29] PDEIS at ES-59, tbl. ES-17.

> Islands groundfish fisheries is not likely to jeopardize [SSL]s, NMFS will conduct an ESA consultation on the proposed action.[30]

This disjointed approach threatens to render the NEPA process meaningless. Review and analysis of the Independent Reviews must be part of the ESA *and* EIS process. The agency must re-evaluate the BiOp in light of the Independent Review findings, and publish the metrics that will determine whether various alternatives are reasonable (i.e., not likely to cause JAM). Stalling re-initiation of consultation and withholding those metrics would lead to the unnecessarily iterative process that NMFS describes and amount to arbitrary and capricious decisionmaking.

B. The PDEIS Does Not Include the Relevant JAM Criteria

The PDEIS does not include the criteria by which the alternatives will be evaluated for a JAM determination. Therefore, the SSLMC and Council have no ability to assess and select a PPA that would potentially avoid JAM, as the criteria are simply not part of the PDEIS. Without the criteria, the scenario to pick a PPA is "bring us a rock, and we will tell you if it is the right rock." Any selection would then be arbitrary—particularly given the absence of any quantified impact from fishing.

Yet somehow, NMFS has already determined that status quo (ALT 1) will not cause jeopardy (ES-60)—despite the Independent Reviews and all of the new information since 2010. Therefore, the criteria must exist, as NMFS has already made a determination for at least one alternative. Not including these criteria in the EIS appears to contradict the ruling of the court to involve the public in the decisionmaking process.

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[30] PDEIS at ES-60. It continues:

> The ESA consultation on the proposed action will be led by the NMFS Protected Resources Division (PRD). To help resolve this issue, PRD is scheduled to provide an evaluation of the preliminary preferred alternative before the Council takes final action in October 2013. The purpose of the preliminary evaluation is to assist the Council in making a choice among the alternatives and recommending a preferred alternative with a greater chance of ensuring the proposed action is not likely to jeopardize [SSLs]. This preliminary evaluation will not contain the final conclusions of the ESA consultation; however, it is intended to inform the Council about aspects of the preliminary preferred alternative that may not be adequate to ensure the proposed action is not likely to jeopardize Steller sea lions. Therefore, the selection of the proposed action is an iterative process based on the analysis in this EIS, consideration of public comments, and agency analysis through the ongoing ESA consultation process.

Id.; see also PDEIS at 1-5 ("New information is available to evaluate and potentially revise the [SSL] protection measures to reduce the economic impacts to the extent practicable on the fisheries while still providing necessary protection to Steller sea lions."); PDEIS at 1-9 ("A new Section 7 consultation may be required, depending on what type of information becomes available during the development of this EIS and how that information that affects NMFS conclusions in the EIS.").

C. "Reasonable" NEPA Alternatives Cannot be Determined Unless the PDEIS Identifies the JAM Criteria that NMFS will Apply to those Alternatives

Throughout the PDEIS, NMFS mentions that "it is not possible to determine," for example, "population-level effects to [SSLs] from the indirect effects of fishing on prey availability through this NEPA analysis for Alternatives 2, 3, and 4"—reasoning that only Alternative 1, adopted as the RPA for the FMP BiOp, withstood the agency's JAM analysis.[31] Now, however, the agency is apparently changing the metrics by which it will determine JAM. These metrics must be disclosed to the public and the Council prior to selecting a PPA, because they are inextricably intertwined with the central questions to the NEPA process. It is not possible to determine what alternatives are "reasonable" under NEPA without knowing what standards NMFS will use to decide whether an alternative will comply with the ESA.

"Federal agencies shall to the fullest extent possible: . . . Implement procedures to make the NEPA process more useful to decisionmakers and the public; to reduce paperwork and the accumulation of extraneous background data; and to emphasize real environmental issues and alternatives. Environmental impact statements shall be concise, clear, and to the point, and **shall be supported by evidence that agencies have made the necessary environmental analyses.**"[32]

Here, the agency's evaluation of the Independent Reviews and identification of the standards that will guide the JAM determination are "necessary environmental analyses" for purposes of NEPA compliance. They must be provided as early in the process as possible, and certainly before the SSLMC or NPFMC is required to select a PPA. Making up the rules after the fact would be arbitrary and capricious.

D. Requiring the Council to Select a PPA Without Knowing the Relevant JAM Criteria Would Preclude Informed and Orderly Decisionmaking

Judge Burgess ordered NMFS to issue a final EIS by March 2, 2014 "that complies with the applicable law and addresses the deficiencies identified in the Court's summary judgment order. Depending on the results, Defendants may also have to revisit the IFR, but those results are unknowable at this time."[33]

In the EA that Judge Burgess rejected as insufficient, NMFS had declared, with no analysis or discussion, that the Council alternative selected in 2010 did not meet the final BiOp's performance standards. (According to NMFS, the alternative would have allowed levels of Atka mackerel and Pacific cod harvests similar to historical practices or at levels greater than allowed by the performance standards.) Thus, if the Council selects a PPA before knowing the JAM criteria, NMFS may very well again reject that PPA (or PA) at a later stage of decisionmaking

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[31] PDEIS at ES-31.
[32] 40 C.F.R. § 1500.2(b) (emphasis supplied).
[33] *Alaska v. Lubchenco,* Dkt. 142 at 9.

for failure to meet those unknown standards. Such backwards timing makes no sense and wastes Council and agency time and resources.

The Council is scheduled to review the PDEIS in April 2013 "and identify a [PPA] for the public review of the draft EIS. NMFS will publish the draft EIS for a 60-day public review period in early- to mid-summer 2013."[34] The Council cannot make an informed selection of or among alternatives—much less "[r]igorously explore and objectively evaluate all reasonable alternatives"—without knowing the actual standards against which PRD will judge the effects of these alternatives for purposes of the ESA, and reasonableness for purposes of NEPA. Nor can the Council or agency, "for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated" without knowing those standards.[35] Withholding key standards will thwart the Council's ability to "evaluate the comparative merits of alternatives."[36]

Each step of the NEPA decisionmaking process must be made based on the most complete record available incorporating the Best Science, regardless of whether that information shows more or less environmental impacts from a proposed action. Requiring the Council to pick a PPA before it knows the relevant metrics could also limit available alternatives, violating the NEPA mandate that no action limit the choice of reasonable alternatives.[37]

The Council's decision on the PPA and subsequent PA must be informed by the primary metric against which "reasonableness" will be measured. While the regulations provide mechanisms for the agency to supplement NEPA documents and add previously unavailable information,[38] they do not allow for selective inclusion or exclusion of known information. Rather, "**[i]f the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives** and the overall costs of obtaining it are not exorbitant, **the agency shall include the information in the [EIS].**"[39]

Not disclosing those key standards to the Council before the Council must choose a PPA will not allow the Council to make an informed decision. It will instead result in an inadequate and disjointed NEPA process, marred by multiple supplements and "do-overs" because the agency didn't follow the proper sequencing and left the Council in the dark at a critical juncture.

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[34] PDEIS at 1-12.
[35] 40 C.F.R. § 1502.14.
[36] *Id.*
[37] *See, e.g.*, 40 C.F.R. § 1506.1(a). The agency may supplement NEPA documents, *see* 40 C.F.R. § 1502.9, but practically speaking, preliminary and draft NEPA documents often limit the range of alternatives that receive meaningful consideration. The initial documents should contain the largest feasible range of reasonable alternatives to ensure informed decisionmaking on the part of the Council and the agency.
[38] *See* 40 C.F.R. § 1502.22.
[39] 40 C.F.R. § 1502.22(a) (emphasis supplied).

E. Requiring the Council to Select a PPA Without Complete Information Would Grossly Undermine the Public Comment Process

If NMFS withholds the actual standards that it intends to use until after the draft EIS is published, the agency also runs the risk of violating NEPA again for one of the same reasons Judge Burgess found agency misconduct in the first place: "failing to provide the public with a sufficient information and opportunity to comment on its decision-making process."[40] The district court considered the agency's disclosure obligations in the context of an EA. EAs are not subject to the rigorous public disclosure requirements of EISs. Even in the comparatively lax context of EA public review, Judge Burgess still explained that:

> The applicable regulations require agencies to involve the public in NEPA procedures. This includes making documents available for public review and holding public hearings. Although there is no set minimum level of public participation that an agency must provide, a complete failure to involve or inform the public is plainly unacceptable. Circulation of a draft EA is not required in every case, although an agency "can never go wrong" by doing so. Moreover, "**[a]n agency**, when preparing an EA, **must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the agency decision-making process.**"[41]

The relevant JAM criteria dictate the scope of reasonable alternatives under NEPA. Thus, they are some of the most important metrics underlying the Council's and NMFS' decisionmaking process under both NEPA and the ESA. Failing to disclose such standards is akin to "a complete failure to involve or inform the public" and the Council of standards critical to the decisionmaking process.[42]

IV. NMFS Inconsistently Defines "Best Available Science" in NEPA and ESA Documents

A. NMFS' Use of Unpublished Studies is Arbitrary

NMFS acknowledges that:

> Two statu[t]es define the type of information to use in this analysis. The first statute is the Magnuson-Stevens Act. National Standard 2 of the [MSA] requires conservation and management of the fisheries to be based on the best scientific information available. In this EIS, we use the best scientific information available related to the fisheries and conditions of the affected environment to inform the analysis of the effects of the fisheries. Because NEPA requires the analysis of

[40] *Alaska v. Lubchenco*, Dkt. 130 at 55.
[41] *Id.* (emphasis supplied).
[42] *Id.*

> human impacts on the environment, the best scientific information available is information that informs the decision-maker of the impacts of the alternatives, including the proposed action, on the human environment . . . .[43]

NMFS does not apply this standard consistently. For example, it has not adequately reflected the contents of the Individual Reviews in the PDEIS. It has also based large portions of its analyses in Chapter 5 of the PDEIS on unpublished studies and studies conducted and/or completed after the December 14, 2012 cut-off date. These include Fritz L, Sweeney K, Johnson D, Lynn M, Gilpatrick J. 2013. Aerial and Ship-Based Surveys of Steller sea lions (*Eumetopias jubatus*) Conducted in Alaska in June-July 2008 through 2012, and an Update on the Status and Trend of the Western Stock in Alaska.[44]

As of March 18, 2013, the "Johnson and Fritz, in prep" study had not been completed. Yet it is cited at least 17 times throughout chapter 5. The agency informed us that the analysis will "accurately reflect the reports," but the reports won't be published until the final EIS. This precludes careful consideration of this scientific information by the Council, its Scientific and Statistical Committee, and the public.

In contrast, the agency has ignored telemetry data (i.e., from certain females tagged in 543 and 542 over the past two years) as "not published." Even though these data are routinely posted on the agency's website, NMFS has refused to incorporate such information into prior BiOps or this PDEIS.[45]

For purposes of the Best Science inquiry, NMFS set a cutoff date for new information of December 14, 2012. Yet the PDEIS includes references such as "Johnson and Fritz, in prep" and "Fritz et al 2013," and refers to numerous documents in prep. If the reference materials are dated after the cutoff date or are not complete, the public is unable to evaluate the PDEIS.

The agency's selective use of scientific data and its heavy reliance on unpublished and incomplete studies for a critical chapter of the PDEIS is inconsistent with the agency's past

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[43] PDEIS at 1-19.

[44] PDEIS at 5-209.

[45] NMFS has tagged a small number of females in AI sub-areas 543 and 542 over last two years. The PDEIS largely ignores the telemetry data from these animals as "not published" and anecdotal data. This new standard of telemetry data being published is surprising. In BiOps issued during and before 2010, the agency routinely made use of essentially unpublished telemetry data (e.g., data summarized in powerpoint presentations or internal agency documents) pertaining to the movements of 3 tagged juvenile males in AI sub-areas 542 and 543. Now the tagged females are exhibiting feeding behavior that is very nearshore in 543 (within 3 miles) or way offshore in areas which are way too deep for groundfish. NMML personnel have stated that these females are feeding on non-groundfish species outside of CH (squid, juvenile salmon, and lantern fish) which are the only fish in these abyssal waters. But now the agency appears to be saying that the PDEIS cannot make use of the new telemetry data because it is "unpublished" or preliminary. In other areas, however, the EIS cites and makes conclusions based on unpublished papers (e.g. Johnson and Fritz, 2013, in prep).

practice and was a chief criticism made by the Independent Reviews. The agency has not explained how an unpublished study and selective use of other scientific information constitutes the Best Science under NEPA or the MSA.

B. NMFS Must Include All Relevant Analyses That It Deems the Best Science

The PDEIS does not include analyses that NMFS apparently considers highly relevant.

Ten statistical studies in the ISRP (Bernard 2011) found no negative statistical associations with fishing and SSL populations:

> *Results for years after 2000 are unequivocal. No statistically significant associations consistent with harm by fisheries were found: 100% of the tests resulted in statistical outcomes consistent with groundfish fisheries having had no impact on sea lion demographics.*

The CIE also found these analyses compelling:

> *They* [(the ten studies)] *do represent the best test of the hypothesis that fisheries negatively affect SSL trends. On the basis of my review of these studies and the independent review of Bernard et al (2011), I conclude that these studies provide no evidence for the hypothesized negative effects of fishing.*[46]

The PDEIS contains a brief discussion of these statistical studies.[47] However, NMFS states that it will be conducting "*a simulation experiment to determine whether methods used in the literature (Bernard et al 2011) have adequate power to determine whether a fisheries effect can be determined.*" This "new" analysis is not included in the PDEIS and therefore not available to the public.

These studies have been around for a number of years (some were commissioned by NMFS) as well as the summation in Bernard 2011. There is no excuse for NMFS failing to previously consider these studies in the 2010 BiOp and now again in the EIS. As Stokes noted, these studies are at the heart of the risk analysis, and NMFS appears to have failed to consider these studies. It is preparing a new yet-to-be conducted analysis that is unavailable. This is arbitrary and capricious, and unacceptable under NEPA, the MSA and basic administrative law.

V. Specific examples of deficiencies in the PDEIS

In addition to the foregoing legal, scientific and analytical faults, the PDEIS also contains the following specific failures:

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[46] Bowen at 7.
[47] PDEIS at 5-99 through 5-102.

- **Extent of overlap with fisheries in terms of size of prey; depth; etc.** The PDEIS provides no quantitative extent of overlap with fisheries that amounts to one page (p. 5-96 and 5-97). This has been an extensive subject of criticism on the draft BiOp; the IFR; by the ISRP; SSLMC; NPFMC; and CIE. Considerable information on fish size is available but NMFS refuses to consider it. The PDEIS only includes one statement on 5-96 that alludes to considerable overlap in pollock and Atka mackerel (51%) but without providing any reference to area or graphics. The PDEIS contains NO information on size overlap with p-cod. Additionally, despite extensive public comment, the dive depth overlap is depicted in a misleading manner. Commenters have requested that dives be done via histograms (proportion of dives at depth) instead of maximum dive or mean dives – neither of which effectively quantifies extent of overlap with fisheries. Inexplicably, the PDEIS focuses on mean dive depth and maximum dive depth. The CIE expressed dismay over the lack of quantification of overlap, and once again, that is what is in the PDEIS.

Bowen: *"However the discussions of prey size and depth overlap between SSL and the fisheries do not provide the reader with any quantifiable basis for the yes/no decision."* (p. 32) *"Quantitative analyses to support decisions about exposure overlap of SSL habitat to fisheries would have been more informative."* (p. 7)

-- **Frequency of Occurrence (FO) and Diet:** The arbitrariness of the use of FO by NMFS, FO thresholds (10%), and the limitations of FO have been the subject of considerable criticism in the reviews of the 2001 BiOp and the 2010 BiOp by the CIE and ISRP. NMFS has taken none of these criticisms to heart. Conversely, NMFS in the PDEIS appears to add another arbitrary threshold (5% on 5-36 and 5-96); presents FO as a metric of diet (presence or absence) without quantifying proportion of diet ; provides no explanation as to the bias and shortcomings of using FO; and incorporates the flawed 2010 BiOp by reference. Though requested in scoping, the PDEIS does not include the entire prey field for SSLs in the Aleutians by area (and proportions) so a reviewer could evaluate the relative importance of diet items.

Bowen: *"The metric used to describe the diets of SSLs is FO – well known as the least informative estimate of what is consumed.....I conclude that the identification of both important and principal prey species of SSL is flawed as no attempt has been made to correct for known biases associated with the use of FO as a measure of importance. It is my opinion that the estimates of SSL diet composition reported in the BiOp cannot be considered accurate."*

"As a consequence, it is almost certain that the conclusions about the species composition of SSL diets are seriously biased and the importance of pollock, Pacific cod, and Atka mackerel as prey of SSL has been overestimated." (p. 9)

"I have several concerns here. The first is that FO is not a reliable basis for determining the energy contribution of prey species to the diet." (p. 19)

Stokes: *"Frequency of occurrence is a poor measure of actual diet content....Using frequency of occurrence can thus lead to biased estimates of diet composition."* (p. 22)

The 2001 BiOp Review Panel also noted that, "*The reliance on frequency of occurrence as the measure of the relative importance of prey is fraught with problems and more informative and reliable measures should be sought.*"

- **Forage ratios:** The draft BiOp put great weight on forage ratios. However when the ratios were re-calculated for the final BiOp, the resulting ratios did not support the unfounded assertion by NMFS that the Aleutians were forage–poor. As been the case, whenever a study does not support a NMFS "belief" it is either dropped or great pains are taken to marginalize the study (the Maniscalco effect). In the PDEIS, forage ratios are now dropped (p. 5-102) because they are "contentious" (i.e. does not support the belief).

- **Multi-species food web model:** While the PDEIS still includes that an area specific AI model would likely show that reducing cod mortality in the WAI may be deleterious to SSLs (p. 7-27), the PDEIS conversely assumes that there is no benefit from p-cod fishing which would reduce predation on Atka mackerel (p. 5-103)

- **Population Trend:** While the PDEIS is improved over the 2010 BiOp, it is still difficult to derive overall growth and trend. While there is a table for trends for non-pups, there are no corresponding tables for pups. Additionally, the PDEIS should include the complete historic survey counts (not just the trend sites) similar to what was received by the SSLMC

The entire WDPS population was estimated to be 50,000 in 2000 (p. 5-5) and 79,300 in 2012 (p. 5-6) or an increase of **+58.6%** (2000-2012) or an average annual increase of +4.9% per year (2000-2012). The Russian population was estimated at approximately 13,000 in 2000 (p. 5-8) making the total US WDPS population approximately 37,000 in 2000 and 52,200 in 2012 or an increase of **+41.1%** (2000-2012) or an average annual increase of +3.43% per year. Somehow the average annual growth of the WDPS and US WDPS and pups is missing from the PDEIS and should be included.[48]

Holmes: The PDEIS again puts considerable weight on Holmes et al 2007 which had declining natality in the CGOA to 2004. The reduced natality was the only positive criteria for the hypothesized nutritional stress which the CIE did not find credible. The population growth in the CGOA has sharply increased since 2004 for pups and non-pups. Pup counts at trend rookeries in the CGOA have increased **+29%** and **+33%** in the EGOA since 2004. The 2011 non-pup survey in the CGOA (45% of sites surveyed) was 15% larger than the 2008 survey (100% of sites surveyed).

[48] On pages 5-7, the PDEIS states that only 60% of SSLs are hauled out and available for counting during breeding season so it is more likely that the total populations derived from pup multipliers are conservative estimates. For example, in 2011 (not a complete non-pup survey), 30,555 non-pups were counted and 11,600 pups were counted in US WDPS. If the 60% only applies to non-pups, the adjusted non-pup count would be 50,925 plus the 11,600 = 62,525 total population US WDPS (or +10,325 greater than the estimate from a 4.5 pup multiplier – 52,200).

- **Harvest rates:** There appears to be no attempt in the PDEIS to re-calculate the harvest rates for p-cod that were in error in the 2010 BiOp (which is incorporated by reference in the PDEIS).

- **Movement analysis:** The section on movement could be much improved if graphics were used to describe portions of populations immigrating and moving (as in Burkanov pie diagrams for adult males; adult females; juveniles etc). The narrative is not very informative. For example, how many brands were seen at St. Lawrence and what proportions were from what locations?

- **Boor and foraging habitat:** Undue emphasis is given to Boor—which is mischaracterized as an experiment to observe SSL movement and offshore fisheries (p. 5-100) when the dataset is opportunistic sampling from all sorts of vessels in a very spotty and dated series of observations. The limitations of the POP dataset are not mentioned in the PDEIS. Additionally, when SSLs with telemetry are discussed in these offshore areas, there is no discussion of the pelagic prey available in those areas.

- **Questionable comparative analyses:** NMFS also reviewed certain proposed alternatives under a questionable analytical framework. The way that NMFS analyzed the SSLMC's proposal for mackerel fishing inside 542 critical habitat ("CH") provides one example.

At the SSLMC level, Alternatives 2 for Atka mackerel utilized information from NMFS' FIT division studies as a basis for the amount of inside CH 542 fishing, where the amount of removal would be less than 5% of local mackerel biomass. This rationale was stripped out of the SSLMC's alternative, however, under the rationale that the agency could not analyze it. Instead, NMFS recommended that the SSLMC propose in Alternative 2 to catch 65% of ABC and no more than 50% in CH. This came out to <5% of mackerel biomass in the areas we proposed to allow fishing inside 542 CH. The SSLMC also proposed to close the area around Amchitka (part of CH in 542), consistent with the findings of the FIT study. In the PDEIS, NMFS now apparently concludes that this small amount of inside CH mackerel fishing in 542 is a big increase relative to the baseline (2004-2010). The agency has apparently made this preliminary conclusion by characterizing that amount of catch, as small as it is, as an increase for the specific area that remains open in our alternatives. Ironically, if the SSLMC had proposed to leave Amchitka open within this alternative, the analysis would then have viewed this as a net decrease in inside CH fishing, hence better for SSL.

VI. Conclusion

The PDEIS' deficiencies identified herein must be corrected in order for the Council to make an informed decision regarding alternatives, including selection of a Preliminary Preferred Alternative ("PPA"). Their correction is also the only way for the public to be informed of the effects of the various alternatives, and therefore be able to provide meaningful comment on those alternatives. It would be an arbitrary and capricious action to select a PPA at this stage without this crucial information, and would violate NEPA and Judge Burgess' orders.

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March 26, 2013

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Dr. Jim Balsiger, Regional Administrator
NOAA Fisheries, Alaska Region
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RE: Agenda item C-3a

Bering Sea and Aleutian Islands Pacific cod ABC/TAC split

Dear Chairman Olson, Dr. Balsiger, and Council Members:

It is clear that you have a legal and scientific responsibility to manage the stock of Pacific cod in the Aleutian Islands separate from the stock of Pacific cod in the Bering Sea and address the serious conservation concerns of the status quo. The Science and Statistical Committee gave notice in December 2012 that it will adopt separate AI and EBS Pacific cod OFLs and ABCs for the 2014 fishing season. We urge NMFS and the Council to take this opportunity to improve ecosystem-based fishery management in the Aleutian Islands. Debate over sector and processing allocations must not delay necessary actions.

Management decisions must use the best indicators of the status of the cod stock in the Aleutians, and prevent overfishing, localized depletion, and minimize the ecological impacts from fishing on that stock. Discussion of Pacific cod in the Aleutian Islands and supporting NEPA documents should not be limited to analyses of "processing sideboards" and ways to retain historical sector allocations. While these issues are certainly important to some stakeholders, and resolution of the management implications are likely necessary, NMFS and the Council must not take a myopic focus on economic impacts. First consideration should be to ecological impacts, including overfishing, localized depletion and subsequent cascading effects in the ecosystem.

Going forward, NMFS and the Council must take a hard look at the ecological impacts of fishing, particularly the impacts of current and historical sector allocations. Simply justifying a large allocation to trawl fisheries because trawling is only feasible when cod are aggregated, spawning, and 'trawlable', is no longer excusable. The overall fishing mortality and the historical sector allocations for Pacific cod and other species are not the most appropriate or optimal for minimizing ecosystem impacts. For example, an intense trawl fishery targeting spawning aggregations is an inappropriate management strategy given the declining Pacific cod biomass in the Aleutian Islands. Fisheries targeting spawning aggregations can disrupt the behavior of spawning, disperse schools and potentially decrease reproductive output of the stock.[1] Further, skipped spawning may overestimate stock production, and may be more

[1] Dean, J.M., W.S. Hoffman, and M.P. Armstrong. 2012. Disruption of an Atlantic Cod Spawning Aggregation Resulting from the Opening of a Directed Gill-Net Fishery. North American Journal of Fisheries Management 32: 124–134.

prevalent in teleost fish than previously thought.[2] Taken together, spawning disruption and skipped spawning could have serious implications for current fishery management assumptions.

Further, we encourage NMFS and the Council to work with the State of Alaska to help determine a sustainable Guideline Harvest Limit (GHL) for Pacific cod in the nearshore waters of the Aleutian Islands. The harvest limit should be responsive to the ecological conditions and status of the cod stock in the Aleutian Islands, not as it is currently related to the Bering Sea stock. Additionally, gears that minimize impacts on bycatch and habitat, as well as the seasonal timing and areas open to fishing need to be considered.

We urge NMFS and the Council evaluate these issues and develop alternatives for Aleutian Islands groundfish management in time for the December 2013 NPFMC meeting to set harvest specifications for Pacific Cod in the Aleutian Islands. We will continue to work with you on this issue.

Sincerely,

Susan Murray
Deputy Vice President, Pacific
Oceana

[2] Skjæraasena, J.,E., et.al. 2012. Frequent skipped spawning in the world's largest cod population. PNAS, Vol. 29, no. 23.