

Michael LeVine
Pacific Senior Counsel, Oceana

Written Testimony on “NOAA’s Steller Sea Lion Science and Fishery Management Restrictions, ‘Does the Science Support the Decisions?’”

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Good morning, Mr. Chairman and Members of the Committee. Thank you for the invitation to participate in today’s hearing. My name is Michael LeVine, and I am Pacific Senior Counsel for Oceana. Oceana is an international marine conservation organization dedicated to using science, law, and policy to protect the world’s oceans. Our headquarters are in Washington, DC, and we have offices in five states as well as Belgium, Belize, Spain, Denmark, and Chile. Oceana has more than 500,000 members and supporters from all 50 states and from 150 countries around the globe. Our Pacific work is headquartered in Juneau, Alaska, and, together, our Pacific staff has more than 180 years of experience working and living in Alaska.

Oceana works toward healthy ocean ecosystems, sustainable fisheries, and vibrant communities. We have been active in issues surrounding the endangered Western Population of Steller sea lions since our inception because the health of that population and the management of the prey species on which it depends are an appropriate lens through which to evaluate progress toward those goals. Despite the contentious history and current controversy surrounding this issue, the facts are clear: the western stock of Steller sea lions has declined by more than 80% since the 1960s. Though management changes implemented in 2001 appear to have some beneficial effect, the population as a whole is not meeting established recovery criteria and, irrespective of its overall status, continues to decline sharply in the western Aleutian Islands.

While there may be other factors contributing to the ongoing decline and failure to recover, competition with fisheries for food is the only one we have the ability—and obligation—to mitigate directly. The best way to achieve this goal, while allowing for sustainable fisheries and supporting communities, is to move toward ecosystem-based management for our oceans. The North Pacific Fishery Management Council and National Marine Fisheries Service (NMFS) have made important strides in this direction, including preparing the Aleutian Islands Fishery Ecosystem Plan (AIFEP) and protecting important seafloor habitat from bottom trawling. The population of Steller sea lions, however, is telling us clearly that more can and should be done.

Ultimately, this conversation is about our oceans and the way we are managing large industrial fisheries. Accordingly, I will begin this testimony by discussing the importance and health of the North Pacific ocean ecosystems, with a particular focus on the Aleutian Islands, the Western Population of Steller sea lions, and the impacts of large-scale industrial fisheries. I will then outline the extensive process undertaken by NMFS, including the role played by the Council, and the justification and clear need for the management changes implemented by NMFS pursuant to the recent Biological Opinion (BiOp). Finally, I will discuss additional steps toward ecosystem-based management that should be implemented.

I. THE NORTH PACIFIC CAN SUPPORT AND MAINTAIN HEALTHY OCEAN ECOSYSTEMS, SUSTAINABLE FISHERIES, AND VIBRANT COMMUNITIES.

A. Oceans are Central to Our Well-Being, and the Aleutian Islands Ecosystem, in Particular, is Unique and Important.

Covering more than 70% of the world's surface, oceans and seas are our largest public domain, and good stewardship of our ocean resources is vital to our lives and livelihoods. As the U.S. Commission on Ocean Policy stated, "the importance of our oceans, coasts, and Great Lakes cannot be overstated; they are critical to the very existence and wellbeing of the nation and its people." An Ocean Blueprint for the 21st Century 1 (Sept. 20, 2004); *see also* Exec. Order No. 13547 (2010) ("America's stewardship of the ocean, our coasts, and the Great Lakes is intrinsically linked to environmental sustainability, human health and well-being, national prosperity, adaptation to climate and other environmental changes, social justice, international diplomacy, and national and homeland security."). Thus, we must be careful not to risk the long-term viability of our ocean resources by prioritizing short-term economic gains or making poorly informed decisions that could foreclose future opportunities to manage sustainably.

Nowhere are these statements and the management considerations they engender more important than Alaska and, in particular, the vast, productive expanses of the North Pacific Ocean. The North Pacific, including the Bering Sea, Aleutian Islands, and the Gulf of Alaska, contains some of the most productive waters on Earth and supports rich and diverse marine life.

The Aleutian Islands ecosystem is one of the most vibrant, dynamic, productive and rare ocean environments in the world. At more than 1,000 miles, the Aleutian Islands form the longest archipelago in the world. These islands are stretched along a narrow shelf, and the bathymetry changes dramatically, from greater than 7,000 meters deep in the depths of the Aleutian Trench to the nearshore shallows, in a distance of less than 150 km. This unique geological setting creates rich habitat that draws millions of seabirds and hundreds of thousands of marine mammals each year.

The Aleutian Islands support more than 450 species of fish and shellfish, 260 species of migratory birds, and 25 species of marine mammals. Whales—humpback, blue, minke, bowhead, and orca—as well as sea lions, seals, and other marine mammals frequent these waters. More than 38 million seabirds—including a wide variety of geese, gulls, petrels, puffins, murre, auklets, and terns—flock to the islands to nest. The ocean waters support salmon, halibut, rockfish, cod, and crab, among other fish and shellfish.

The Aleutian Islands also harbor incredible aggregations of cold water corals. The density and diversity of these Alaskan corals rival tropical coral reefs, and there are deep-sea coral gardens that are unique to the Aleutian Islands. This living seafloor forms habitat that provides nurseries, places to feed, shelter from currents and predators, and spawning areas for many marine species.

This bounty in the Aleutian Islands has been overexploited. After the overhunting of sea otters and commercial whaling, early commercial fisheries in the Aleutians were characterized by a boom-and-bust cycle. *See* North Pacific Fishery Management Council, Aleutian Islands Fishery

Ecosystem Plan 9, 16-19 (December 2007) (hereinafter “AIFEP”). Currently, between 220 and 440 million pounds of groundfish, primarily Atka mackerel, Pacific cod, and Pacific ocean perch, are removed annually from the Aleutian Islands region. Much of this biomass is removed from important feeding habitat for marine mammals, including Steller sea lions.

B. The Decline and Continued Failure to Recover of the Western Population of Steller Sea Lions Tell an Important Story About the Health of North Pacific Ecosystems.

Despite its incredible productivity, not all is well in the North Pacific. The past several decades have witnessed significant declines in some marine mammal, bird, and fish populations. The continued decline and failure to recover of the Western Population of Steller sea lions, in particular, are telling an important story about the conditions under which large-scale industrial fisheries are authorized.

The Steller sea lion’s range extends around the North Pacific Ocean rim from northern Japan through the Aleutian Islands and Bering Sea, and south to California. Based on DNA analysis and other factors, the U.S. population is divided into a Western Population, consisting of animals in the Gulf of Alaska and the Bering Sea/Aleutian Islands, and an Eastern Population, which is primarily in Southeast Alaska and along the west coast of North America. Despite their expansive range, the Steller sea lions breed at only a handful of discrete locations. The Western Population now occupies only 48 breeding sites (or “rookeries”), 38 of which are in Alaska. *See* National Marine Fisheries Service, Endangered Species Act – Section 7 Consultation Biological Opinion on the Authorization of Groundfish Fisheries under the Fishery Management Plans for the Bering Sea and Aleutian Islands Management Area and the Gulf of Alaska 80, 85-86 (Nov. 24, 2010) (hereinafter “2010 BiOp”). As the Western Population has declined, the centers of production for the population have contracted and condensed. Now, twelve of the rookeries produce more than 60% of the population’s pups.

The worldwide abundance of Steller sea lions was estimated to be approximately 240,000 to 300,000 animals from the 1950s through the late 1970s; the vast majority of which were part of what is now recognized as the Western Population. That population declined precipitously, and it reached a low point in 2000, when it was estimated at 42,500 individuals—a decline of more than 80%. *Id.* at 80, 332. Much of this significant decline likely was caused by a combination of commercial and subsistence harvests and intentional shooting of the animals. *Id.* at 343. Though this direct mortality was largely ended in the early 1980s, the Western Population continued to decline.

Prior to 2000, NMFS had implemented only very limited protections for the Western Population. To address the continuing decline and its obligations under the Endangered Species Act, NMFS put in place new management measures in 2001. These new measures appear to have beneficial effects, and, overall the Western Population grew by approximately 3% annually from 2000 to 2004. According to NMFS, this brief period from 2000 to 2004 is the “the only increasing period observed since trend information began to be collected in the 1970s.” *Id.* at 287.

Unfortunately, this growth appears to have been temporary. From 2004-2008, the population was stable or slightly declining. Thus, as a whole, it is estimated that the Western Population grew by approximately 1.4 percent annually from 2000-2008. This growth, however, is not statistically significant, which means that we cannot tell whether it is actually increasing, decreasing, or staying steady. Thus, the population can be most appropriately described, overall, as stable.

Moreover, the population continues to experience significant declines in some areas. The most severe decline was observed in the western Aleutian Islands, where the already greatly diminished adult population declined an additional 45% from 2000 to 2008. In the central Aleutian Islands during the same period, the adult population declined by 11%. *Id.* at 333.

In addition to the declines observed in the western and central Aleutian Islands, the population of Steller sea lions is showing another sign of stress—decreased natality. Data collected in the last decade indicate that adult females are having many fewer pups than they did historically. The current birth rate estimated to be about 30% lower than it was before the population began to decline in the 1970s. *Id.* at xxviii. Although natality is low in the western and central Aleutian Islands—the areas in which population declines are ongoing—it appears to be down across the rest of the population as well. A female pup born ten years ago would be of prime breeding age, and she should have produced 3 or 4 pups by now. The decrease in natality, however, means that it is likely she has produced only 2 or fewer pups.

It is very likely that the small increase in the Western Population was due to increased survivorship. Pups are more likely to survive into adulthood than they were before the protection measures were put in place. Without a concurrent increase in natality, however, the growth of the population cannot be sustained. If pup production is not greater than mortality, the population will not grow. Further, the population will age as higher survival of adults and juveniles outpaces the lower birthrates. A population with this structure is less resilient to disturbance and cannot quickly recover from population fluctuations. Thus, the risk of extinction for the Western Population increases as it ages and birth rates stay low.

Significantly, in contrast to the Western Population, the once relatively small Eastern Population of Steller sea lions has doubled since the 1970s. The population has grown so substantially that NMFS currently is considering petitions to remove the population from the list of species protected by the Endangered Species Act. The Eastern and Western populations share similar characteristics and depend on some of the same prey species—including pollock and Pacific cod. The most apparent difference between these two distinct populations is that no high volume groundfish trawling occurs in Southeast Alaska.

C. Industrial Fishing in the North Pacific Has Significant Impacts on the Ocean Ecosystem.

In addition to ecological riches, the North Pacific also supports some of the largest fisheries in the world. Though these fisheries began in the 1920s, they started to take their current form in the 1950s. Currently, the Bering Sea/Aleutian Islands and Gulf of Alaska support fisheries that remove more than four billion pounds of groundfish each year. This exploitation has expanded

7,500 percent since 1950. *See Greenpeace v. NMFS*, 106 F. Supp. 2d 1066, 1070 (W.D. Wash. 2000). Of this catch, between 220 and 440 million pounds of fish are removed annually from the Aleutian Islands region.

The vast majority of the fish caught are groundfish, among them Atka mackerel, Pacific cod, and walleye pollock. These same species are important prey for top predators, including Steller sea lions. Approximately 90% of these groundfish are caught by large trawl vessels, most of which are owned by individuals and companies from outside Alaska. These trawl vessels can remove huge quantities of fish in a short time. One pass of a trawl can net 40 to 100 tons of fish.

Such intense fishing reduces fish populations significantly. Projections for 2011 show that important prey stocks have been reduced by between 50-70% from their historic, non-fished levels. Aleutian Island Atka mackerel is expected to be at 56% of historic biomass; Aleutian Island pollock at 30%; Gulf of Alaska pollock at 29%; Bering Sea pollock at 48%; Bering Sea/Aleutian Islands Pacific cod at 37%; and Gulf of Alaska Pacific cod at 48%. *See NMFS, North Pacific Groundfish Stock Assessment and Fishery Evaluation Reports for 2011, available at <http://www.afsc.noaa.gov/REFM/stocks/assessments.htm>*. These projections will be updated with information from this year's stock assessments in December.

Moreover, there have been significant local depletion of important prey species. These depletions began when sea otters were hunted to near extinction by fur traders, continued with several decades of unsustainable commercial whaling, and led, in the 1960s, to the rise of the first industrial fishery for Pacific Ocean perch, which were overharvested within 15 years. *See AIEP at 9, 16-19*. Around the same time, red king crabs were overexploited and have not yet recovered. In the late 1980s through the mid-1990s, the stock of pollock in the Aleutians was quickly depleted. *See Barbeaux, S. et al., "Assessment of the Pollock stock in the Aleutian Islands" 213 (Nov. 2009)*. Similarly, the stock of Atka mackerel in the Gulf of Alaska was overharvested in the late 1970s. *See Lowe, S. et al., "Assessment of Gulf of Alaska Atka Mackerel" 1166, Tbl 16.1 (Dec. 2009)*.

These fisheries are huge economic engines, and the companies that run them are very powerful. Indeed, the value of the pollock fishery alone is over \$1 billion dollars annually. Certainly, these fisheries provide economic benefit in Alaska, and Oceana supports commercial fisheries that are managed sustainably. Neither the economic benefit, nor the will of the companies receiving it, however, is a sufficient justification for allowing unsustainable fishing practices.

II. NMFS HAS UNDERTAKEN A DETAILED AND EXTENSIVE PROCESS, AND ITS ACTIONS ARE CLEARLY JUSTIFIED.

A. Fisheries are Managed By the Secretary of Commerce to Achieve the Greatest Benefit to the Nation.

The Magnuson Stevens Fishery and Conservation Management Act ("MSA"), 16 U.S.C. § 1801 *et seq.*, is the overarching statute governing fisheries management in United States waters. The first stated purpose of the statute is "to conserve and manage [] fishery resources," and it

makes the Secretary of Commerce responsible for fulfilling that obligation. The Secretary implements Fishery Management Plans that provide the measures necessary for the conservation and management of fisheries. These conservation and management measures are “all of the rules, regulations, conditions, methods, and other measures”

- (A) which are required to rebuild, restore, or maintain, and which are useful in rebuilding, restoring, or maintaining, any fishery resource and the marine environment; and
- (B) which are designed to assure that—
 - (i) a supply of food and other products may be taken, and that recreational benefits may be obtained, on a continuing basis;
 - (ii) irreversible or long-term adverse effects on fishery resources and the marine environment are avoided; and
 - (iii) there will be a multiplicity of options available with respect to future uses of these resources.

Id. § 1802(5). These measures define the fishery in terms of amount of fish caught, the time of year when fishery may occur, the gear types authorized, and other strictures. They are intended to provide the “optimum yield” from a fishery, which is defined as “the amount of fish which . . . will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems.” *Id.* § 1802(33). Thus, protection of the fish stocks and marine environment is a central consideration in making decisions to authorize commercial fishing.

In determining how best to meet these obligations and others under the statute, the Secretary of Commerce is advised by eight regional councils comprised of certain state and federal government representatives and other stakeholders that are nominated by the governors of affected states and are generally representatives of the commercial fishing industry. The North Pacific Fishery Management Council is the regional body that advises the Secretary about conservation and management of fisheries in Alaska.

The MSA, however, is not the only statute that affects fisheries. In making final decisions about fisheries management, the Secretary of Commerce must also ensure compliance with other substantive statutes—including the Endangered Species Act (“ESA”), 16 U.S.C. § 1531 *et seq.* The ESA is designed “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved,” and “to provide a program for the conservation of such . . . species.” *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978) (quoting 16 U.S.C. § 1531(b)). The statute reflects “a conscious decision by Congress to give endangered species priority over the ‘primary missions’ of federal agencies.” *Id.* at 184.

To effectuate this purpose, the ESA places on all federal agencies the substantive obligation to “insure that any action . . . is not likely to jeopardize the continued existence of any endangered species . . . or result in the destruction or adverse modification of habitat for such species.” 16 U.S.C. § 1536(a)(1). Agencies must engage in a consultation process with the appropriate expert wildlife agency on the impacts of any federal action to listed species. As it evaluates the BSAI and GOA groundfish fisheries, NMFS is both “action” and “expert” agency: “NMFS’s

Office of Sustainable Fisheries is the ‘Action’ Agency” because it is responsible for authorizing the fisheries, “and NMFS’s Office of Protected Resources is the ‘Expert’ Agency” because it provides the opinion about whether those fisheries comply with the ESA. *See Greenpeace v. National Marine Fisheries Serv.*, 237 F. Supp. 2d 1181, 1185 n.2 (W.D. Wash 2002). These consultation processes are completed in NMFS’s regional offices and are signed by the Regional Administrator, who oversees the regional divisions of both Protected Resources and Sustainable Fisheries. The agency, therefore, must pay particular attention to its procedural obligations and must take all necessary precautions to protect the scientific process within the Office of Protected Resources, as expert agency, as it prepares a BiOp.

NMFS’s obligation to prevent jeopardy and adverse modification includes not just ensuring survival of the species but also allowing for recovery—an action can cause jeopardy or adverse modification when it does not allow for the recovery of the listed species. *See Gifford Pinchot Task Force v. U.S. Fish and Wildlife Serv.*, 378 F.3d 1059, 1069-70 (9th Cir. 2004). Recovery means an “improvement in the status of listed species to the point at which” the protections of the statute are no longer necessary.

Thus, in determining whether to authorize fisheries and under what conditions, the Secretary of Commerce and NMFS, as advised by the Councils, must strive to “provide the greatest overall benefit to the Nation” while “taking into account the protection of marine ecosystems” and ensuring that the actions do not cause jeopardy to species protected under the ESA or adversely modify critical habitat.

B. NMFS Has Undertaken a Detailed and Extensive Process To Ensure That the Groundfish Fisheries Comply With the MSA and ESA.

Difficulty in balancing the complementary legal obligations for management of the groundfish fisheries in Alaska and controversy about competition with Steller sea lions are not new phenomena. In fact, this hearing is another chapter in a conversation that goes back two decades. The population declines explained above led the Western Population to be listed under the ESA as a threatened species in 1990. Critical habitat was designated for the species in 1993, and in 1997, it was reclassified as endangered. At that time, NMFS had concluded that the groundfish fisheries were not likely to cause jeopardy to Steller sea lions or adversely modify their critical habitat. The rationale for that conclusion was the subject of lengthy and often contentious litigation beginning in 1998. *See Greenpeace*, 237 F. Supp. 2d at 1184. In the course of that litigation, the court repeatedly rejected the agency’s rationale and even enjoined all trawl fishing in designated critical habitat from July through August 2000.

NMFS issued a revised BiOp in 2000 which concludes that the groundfish fisheries, as managed under the Bering Sea/Aleutian Islands and Gulf of Alaska FMPs are likely to jeopardize endangered Steller sea lions and adversely modify their designated critical habitat by competing with Steller sea lions for prey. It, therefore, proposed a reasonable and prudent alternative (RPA), which was subsequently amended. That Amended RPA includes measures designed to reduce competition with Steller sea lions and was the subject of a 2001 BiOp. The 2001 BiOp was supplemented in 2003 with additional analysis of the RPA. The 2003 Supplement was not subject to court challenge and, therefore, concluded that consultation process.

Those analyses all reached the same conclusion—the groundfish fisheries compete with Steller sea lions for prey and that competition may cause jeopardy to the species and adversely modify its critical habitat. Accordingly, management measures are needed to address that competition and ensure the viability and recovery of the population.

Further, NMFS worked to revise the recovery plan for the species and, in 2008, issued a revised Recovery Plan for the Steller Sea Lion. *See* <http://www.fakr.noaa.gov/protectedresources/stellers/recovery/sslrpfinalrev030408.pdf> (hereinafter “Recovery Plan”). That plan establishes very clear demographic criteria for recovery of the Western Population of Steller sea lions. To be considered for delisting, the population must have “increased (statistically significant) for 30 years (at an average annual growth rate of 3%), based on counts of non-pups (i.e., juveniles and adults).” *Id.* at V-21. In addition, the population also must be stable or increasing “in at least 5 of the 7 sub-regions. The population trend in any two adjacent sub-regions can not be declining significantly[,] and the population trend in any sub-region can not have declined by more than 50%.” *Id.* At this time, those criteria represent the best available scientific understanding about the changes in the population that are necessary to ensure recovery.

This plan was subject to extensive review. A draft was reviewed by the public and peer reviewers in 2006, and it was subsequently revised and updated. The Draft Revised Recovery Plan was again reviewed by the public in 2007, underwent an independent scientific review by the Center for Independent Experts and a North Pacific Fishery Management Council Review (contracted to the North Pacific Research Board), and was then revised and updated again.

Throughout this time, significant time and money was dedicated to research about Steller sea lions and the causes of the continued decline and failure to recover. All told, more than \$100 million was spent on research into these questions. Much of this research, however, has been designed to look for causes other than commercial fishing for the ongoing decline and failure to recover. Relatively little funding was directed toward a better understanding of the effects on predators of removing large volumes of prey.

In 2006, perhaps in response to encouraging signs in the population trend, the Council encouraged the NMFS Office of Sustainable Fisheries to request a re-initiation of ESA consultation. The Office of Sustainable Fisheries did so, and the NMFS Office of Protected Resources agreed to start a new consultation process to revisit the conclusions in the 2000 BiOp, as amended in 2001 and 2003, about the effects of the groundfish fisheries on Steller sea lions. In 2008, the NMFS Office of Protected Resources agreed to delay the BiOp in order to allow for consideration new survey data.

In August 2010, NMFS released a draft BiOp. That draft concluded that the management measures put in place in 2001 were not sufficient to prevent jeopardy to Steller sea lions or to prevent adverse modification of their critical habitat. It, therefore, included an RPA further restricting fishing in the far western Aleutian Islands, where the significant population declines continued.

The release of a draft was unusual, as the ESA does not contemplate public comment on draft BiOps. Nonetheless, public comment was accepted on that by the agency until September 3, 2010. In addition, the Council held a special meeting in August 2010 to discuss that draft. NMFS also made a presentation regarding the BiOp process at the Council's normal October meeting, and the agency stated that it would consider the Council's input from that meeting.

The agency's actions should not have come as a surprise. As explained above, there was clear population information showing the continued decline and failure to recover; these data were publicly available and were presented to the Council. Throughout this process, the Council could have recommended changes to the groundfish fisheries management in an effort to address the problems with the population. *See* 18 U.S.C. § 1853(c) (stating that a council may submit proposed regulations it "deems necessary or appropriate"). It, however, did not do so.

NMFS completed the consultation process in December 2010 with issuance of the final BiOp and interim final rule. *See* 75 Fed. Reg. 77535 (Dec. 13, 2010). The rule implements the proposed RPA with minor changes; it puts in place badly needed protections for the portion of the Western Population in the far western Aleutian Islands that is still declining significantly. NMFS accepted public comment on the interim final rule, and it will eventually be supplanted by a final rule.

Currently, NMFS is beginning a review of the BiOp by the Center for Independent Experts (CIE). That review is part of the agency's normal process for scientific documents like this one. The CIE is equipped to undertake a true scientific peer review, using reviewers who have the requisite scientific expertise and who are independent of the various stakeholders in the process. By contrast, the review panel organized by the States of Washington and Alaska cannot be considered an independent scientific review. Indeed, the State of Alaska has a clearly established position with regards to the current status and trend of the Steller sea lion and has made that position clear in its legal challenge to the BiOp and interim final rule. *See Alaska v. Lubchenco*, No. 3:10-cv-00271-TMB (D. Alaska, filed Dec. 14, 2010)

Oceana supports decisions based on sound science and encourages agencies to gather and review basic information at all stages of the decision-making process. We also support established processes, have participated in those processes to the extent we are permitted or able, and will continue to do so.

C. The Conclusions in the BiOp are Justified and the Management Changes Clearly Are Necessary.

As explained above, the Western Population of Steller sea lions is not recovering and, in fact, continues to decline significantly in the far western Aleutian Islands. The population is not growing at a statistically significant rate, and, whether stable or slightly increasing, is not close to the 3% annual growth needed to meet the delisting criteria established in the Recovery Plan. Moreover, since 2000, the population has declined by more than 45% in the far western Aleutian Islands. Based on this information, NMFS concluded appropriately that the management changes implemented in 2001 were not sufficient to prevent jeopardy to Steller sea lions or to

prevent adverse modification of their critical habitat. As the law requires, NMFS addressed that problem by increasing protections in the western Aleutian Islands. The agency's conclusion and subsequent action clearly are justified, and challenges to the cause of the decline or necessity of the management changes implemented are not credible.

As it has in every analysis since 2000, NMFS based the 2010 BiOp and interim final rule on its well-documented rationale that commercial fisheries adversely affect sea lions by competing with them for food. *See* 2010 BiOp at 197-202. The large-scale industrial fisheries described above remove incredible quantities of fish that otherwise would be available to Steller sea lions as prey. Much of this fishing effort occurs in important areas for Steller sea lions, and a significant amount of prey is removed from their designated critical habitat. It is difficult to imagine that reducing the availability of prey by 60 or 70 percent would not affect the population's ability to grow.

Moreover, there is evidence that such interactions are occurring. For example, sea lion populations have fared better in some regions than others, and the areas of improvement coincide with areas where conservation measures have been implemented. Conversely, the areas of sharpest Steller sea lion declines coincide with areas where sea lion protection measures are the fewest and fishing intensity within critical habitat is the greatest. *See* 2010 BiOp at 389, 392. The most likely mechanism for this correlation is nutritional stress resulting from the competition and leading to low birth rates, or "natality." As explained above, natality is down across the population. Further, pup counts in the central Gulf of Alaska have not increased significantly since 1998. *Id.* at Tbl 3.2. Rookery counts in the central Gulf are possibly stable or declining, and pup counts are declining rapidly in several major rookeries. *Id.* at Fig. 3.10. These declines correspond with substantial fisheries in critical habitat for important prey species.

It may very well be true that other factors, such as changing ocean conditions, contribute to the ongoing decline and failure to recover. The existence of those factors, whether or not they are contributing to the decline or failure to recover, does not in any way affect our obligation to manage the one—commercial fishing—that we can control. The law requires it; in the face of scientific uncertainty, the ESA requires federal agencies "to provide the benefit of the doubt to the species concerned with respect to such gaps in the information base." NMFS and US Fish and Wildlife Service, "Consultation Handbook" 1-7 (March 1998) (citing H.R. Conf. Rep. No. 697, 96th Cong., 2nd Sess. 12 (1979)). Scientific information supports it; other stresses on the population may result in cumulative impacts that make it even more important to ensure sufficient prey for sea lions. And, such action is good policy; protection for top predators is one important step toward better management and a healthy ecosystem.

Once NMFS found that the groundfish fisheries, as currently managed did not adequately protect the Western Population of Steller sea lions, the agency was required to take action to address that failing. In light of the clear, continuing, and significant decline of the Steller sea lion population in the western Aleutian Islands and the evidence that nutritional stress may be contributing to it, the additional closures in the far western Aleutian Islands clearly are warranted.

The new measures are not draconian. They are targeted only to that portion of the Steller lions' range in which the most significant declines are occurring and still allow for extensive

commercial fishing. There are new closures only in the westernmost portion of the Aleutian Islands, and the total allowable catch is reduced only for the Atka mackerel fishery. Even that reduction will not close the fishery; the allowable Atka mackerel catch will be reduced in 2011 by only 23% from 2010 levels. Moreover, the Pacific cod quota will not be reduced, and the pollock fishery is not affected by the new measures at all. Further, an earlier version of the BiOp required significant reductions in pollock catch around Kodiak to address low natality there. Ultimately, those protections were not implemented.

Contrary to the assertions that the management changes are unnecessary, it is clear that more should be done to address the ongoing failure to recover of the Western Population and to move toward ecosystem-based management.

III. ADDITIONAL PROTECTIONS ARE LIKELY WARRANTED, AND ADDITIONAL STEPS ARE NEEDED TO MOVE TOWARD ECOSYSTEM-BASED MANAGEMENT.

While the management changes in the far western Aleutian Islands clearly are necessary, they are likely not sufficient. For example, and as explained above, we have not addressed low natality in all regions. There are several steps that could be taken to further move toward ecosystem-based management.

The most obvious place to start is by determining how to allow for the needs of top predators, like Steller sea lions, when fishing levels are set. Currently, the stock-assessment models on which catch levels are based simply assume a level of mortality for the fish species (for Atka mackerel, for example, it is 30%) and then assume that all consumers—other than the fisheries—can survive on that percent of the population. As evidenced by the ongoing decline of the Steller sea lion population, these assumptions are not sufficient.

Thus, we should implement the suggestion in the AIFEP to address predator-prey interactions and work toward an integrated management approach in which ecosystem considerations and the needs of predators, such as Steller sea lions are considered as fishing levels are set. An earlier version of the BiOp sought to implement such a process as part of the new management regime. *See* Endangered Species Act — Section 7 Consultation Draft Biological Opinion Final PRD Version 375 (May 3, 2010) (requiring, as part of the RPA, a revision to “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”). In addition to more effective management under the MSA, such a process would help meet the ESA’s policy of protecting ecosystems and would be an important step toward implementing the AIFEP.

Further, we must move toward viable sustainable fisheries, that could include fixed gear fisheries such as longline, pots, and jigs, that can support local communities. Where tradeoffs are possible, NMFS should favor these more sustainable alternatives. The agency cannot simply weaken necessary protections to allow additional fishing for Steller sea lion prey, but it can consider strengthening other protections to allow these fisheries to continue and to continue to

develop in a sustainable manner. For example, NMFS could strengthen protections by addressing overall harvest levels, further reducing the biomass taken from the western Aleutian Islands by the cod and Atka mackerel trawl fisheries.

It is important to note that current allocation of Atka mackerel catches in the Aleutians do not allow for any of that catch to be delivered and processed in Alaskan communities. Almost no Atka mackerel quota is caught by Alaskan residents. Through Amendment 80 to the Bering Sea/Aleutian Islands Fishery Management Plan, almost all of the Atka mackerel quota has been allocated to a handful of factory trawl vessels which catch and process Atka mackerel offshore. The Atka mackerel quota does not provide processing opportunities for the fish processing plant in Adak or elsewhere in the Aleutians.

In addition, the overfishing of Aleutian Islands pollock described above ended a substantial portion of the large-scale commercial fishing opportunities in the Aleutian Islands. In addition to sea lions, the fish processing plant in Adak, which was built to rely on a congressional allocation of fish from an Aleutian pollock stock that can no longer support sustainable fisheries, is another victim of this unsustainable management. While it may be unfortunate that the remaining large-scale fisheries that target Steller sea lion prey must bear the brunt of recovery efforts, that process is not the appropriate mechanism through which to address the Adak processing plant. Oceana supports efforts to maintain communities like Adak and to provide sustainable Alaskan fisheries. Together, we can find a way to do that without sacrificing our ocean resources.

Finally, as we move toward ecosystem-based management, all Alaskans should insist on the best available science and process. We cannot let political considerations—at the federal, state, or local level—get in the way of decisions about our oceans, and we must let the experts fulfil their obligations under the MSA and ESA.

IV. CONCLUSION

With an extensive coastline and many cultural, recreational, subsistence, and commercial benefits inextricably linked to our oceans, all Alaskans should support healthy ocean ecosystems, sustainable fisheries, and vibrant communities. The Western Population of Steller sea lions provides a lens through which we can evaluate our progress toward those goals. The science is clear—the Western Population of Steller sea lions is not recovering and continues to decline in some areas. The law is clear—we cannot authorize fisheries that may cause jeopardy to a listed species or adversely modify critical habitat. And, the policy is clear—Steller sea lions are telling us that if we want to manage oceans sustainably, we must change the way we manage fisheries to account for the prey needs of apex predators.