Colin C. O'Brien (AK Bar #1110701)
EARTHJUSTICE
441 W. 5th Avenue, Suite 301
Anchorage, AK 99501
T: 907.792.7103
F: 907.277.1390
E: cobrien@earthjustice.org

Brettny E. Hardy (AK Bar #1306043)
Eric P. Jorgensen (AK Bar #8904010)
EARTHJUSTICE
325 Fourth Street
Juneau, AK 99801
T: 907.586.2751
F: 907.463.5891
E: bhardy@earthjustice.org
E: ejorgensen@earthjustice.org

Attorneys for Plaintiffs Oceana, Inc. and Greenpeace, Inc.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

OCEANA, INC. and GREENPEACE, INC.,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Case No. 3:14-cv-00253-TMB
	)	
NATIONAL MARINE FISHERIES SERVICE, *et al.*,	)	
	)	
Defendants,	)	
	)	
and	)	
	)	
ALASKA SEAFOOD COOPERATIVE, *et al.*,	)	
	)	
Intervenor-Defendants.	)	
	)	

PLAINTIFFS' PRINCIPAL BRIEF ON SUMMARY JUDGMENT PURSUANT TO FED. R. CIV. P. 56 AND D.AK. L.R. 16.3

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INTRODUCTION

Each year, in the North Pacific Ocean, the National Marine Fisheries Service (NMFS) authorizes some of the biggest fisheries in the world. These fisheries are managed so that populations of fish are maintained at roughly 40 percent of historic levels, which is intended to maximize human use. Humans, however, are not the only consumers of North Pacific groundfish. The Atka mackerel, Pacific cod, and pollock targeted by these industrial fisheries also are important food for predators, including endangered Steller sea lions. As these major industrial fisheries grew, the Steller sea lion population crashed—by the late 1990s, it had declined nearly 90 percent from 1950s levels and was more than 80 percent lower than it had been in the 1970s.

NMFS has long understood the threat to Steller sea lions posed by competition for prey with the North Pacific groundfish fisheries. It was not until the agency was prodded by court orders, however, that NMFS in 2000 finally resolved to impose more significant restrictions on industrial fishing intended to provide Steller sea lions with adequate prey resources to survive, reproduce, and ultimately recover. Those measures were not implemented consistently over the Steller sea lion's range. Across most of the North Pacific, NMFS adopted important limits on fishing in Steller sea lion habitat, including near breeding, resting, and feeding areas. Though not sufficient to promote recovery of the population, these measures appear to have halted the decline in some areas. In the western Aleutian Islands, however, where NMFS approved much weaker protections for the Atka mackerel and Pacific cod fisheries, the precipitous Steller sea lion decline has continued and the population there now faces a significant risk of extinction.

In 2011, finally recognizing the severity of the ongoing decline in parts of the Aleutian Islands and the threat it posed to the Steller sea lion population overall, NMFS took action to implement stronger protections for sea lions in the western and central Aleutian Islands. NMFS restricted the Atka mackerel and Pacific cod fisheries because it determined these fisheries were a potential cause of the Steller sea lion's continuing decline and failure to recover. The emergency protections were upheld by this Court and the Ninth Circuit as appropriately fulfilling NMFS's obligation under the Endangered Species Act (ESA) to "insure" that the agency does not authorize actions likely to jeopardize the survival or recovery of Steller sea lions or adversely modify their critical habitat.

NMFS has now reversed course and authorized new measures that roll back the recent protections directed at the Atka mackerel and Pacific cod fisheries and even allow the pollock trawl

fleet to exploit sea lion critical habitat for the first time since 1999—all in an area where Steller sea lions are projected to go extinct in as few as 50 years. *See* 79 Fed. Reg. 70,286 (Nov. 25, 2014) (Final Rule). The agency premises its new direction on a 2014 biological opinion (2014 BiOp) that was roundly criticized by NMFS's foremost experts as unscientific and fundamentally flawed. The 2014 BiOp relies on novel analyses that allow it to conclude that there is no risk of competition between sea lions and fishing vessels unless there is certain proof that both are found in the identical place, at the same time, at the exact depth in the ocean, chasing fish of equivalent size. This extreme litmus test for gauging "overlap" of, and the potential for competition between, Steller sea lions and the commercial fisheries arbitrarily departs from 15 years of agency decision making and lacks any rational support in the record. By adopting a wholly new approach to overlap analysis without acknowledging or explaining the change, and by ignoring its own experts' advice and premising its findings on admittedly unreliable information, NMFS has rendered the 2014 BiOp arbitrary and capricious in violation of the Administrative Procedure Act (APA).

NMFS's approach to assessing overlap and the risk to endangered Steller sea lions also violates the ESA. The 2014 BiOp acknowledges the potential for the fisheries to deplete Steller sea lion prey and undermine their reproductive success, and it concedes that the possibility of harm cannot be ruled out. The 2014 BiOp nonetheless dismisses the likelihood of adverse consequences on the premise that there is too little definitive proof that they will occur. This approach is anathema to the ESA, which imposes on NMFS an affirmative duty to prevent jeopardy or adverse modification, requires the agency to give the endangered species the benefit of the doubt in the face of uncertainty, and prohibits issuance of a no jeopardy finding except when the agency can provide reasonable assurances that action will not undermine a species' prospects for recovery by tipping it too far into danger. Here, NMFS has unlawfully resolved uncertainty against Steller sea lions and in favor of new, intensive fishing within their critical habitat. It has done so without identifying the critical tipping point at which the admitted potential for competition turns into a risk of jeopardy. In so doing, the agency has violated the ESA's bedrock requirement that it must "insure" that it does not authorize actions likely to jeopardize the survival or recovery of Steller sea lions or adversely modify their critical habitat.

Further, because the substantial scientific criticism of the 2014 BiOp's conceptual approach to assessing overlap and its constituent analyses was not disclosed or responded to in the contemporaneously prepared final environmental impact statement (FEIS), NMFS also violated the National Environmental Policy Act (NEPA).

For these reasons, pursuant to Fed. R. Civ. P. 56(a) and D.Ak. L.R. 16.3, Plaintiffs Oceana, Inc. (Oceana) and Greenpeace Inc. (Greenpeace) respectfully request that the Court grant summary judgment in their favor and vacate the 2014 BiOp and associated Final Rule.

BACKGROUND

I. STELLER SEA LIONS IN THE WESTERN ALEUTIAN ISLANDS FACE LIKELY EXTINCTION.

The North Pacific Ocean, including the Bering Sea, Aleutian Islands, and Gulf of Alaska, contains some of the most productive waters on Earth and supports rich and diverse marine life. The marine environment of the Aleutian Islands, in particular, is "very dynamic and unique to the world's oceans." Ex. 28 at 87 (2014 BiOp at 1027638). The Aleutian Islands are home to or provide seasonal habitat for northern fur and harbor seals, many whale and porpoise species, sea otters, numerous species of seabirds, and Steller sea lions. Compl., Doc. 1 at 12, ¶ 38; Answer, Doc. 28 at 8, ¶ 38.

The Steller sea lion (*Eumetopias jubatus*) is the largest member of the family *Otariidae*, the "eared seals," and a top predator within the North Pacific ecosystem. Compl., Doc. 1 at 12, ¶ 39; Answer, Doc. 28 at 9, ¶ 39. The Steller sea lion's range extends around the North Pacific Ocean rim from southern California, Canada, Alaska, and into Russia and northern Japan. Ex. 28 at 34 (2014 BiOp at 1027585). Within the species' range in Alaska, NMFS defined a zone of 20 nautical miles around rookeries (breeding sites) and haulouts (resting sites) as "critical" habitat for Steller sea lions. 50 C.F.R. § 226.202; *see also* Ex. 33 at 92 (2010 BiOp at 1054453).

In the 1950s, the worldwide abundance of Steller sea lions was estimated to be hundreds of thousands of animals. Ex. 28 at 34 (2014 BiOp at 1027585). Population levels are dramatically lower now, especially within the United States. The steep decline coincided with the growth of commercial fisheries and other human activities in the sea lions' range. In addition to fishing, "one of the main concerns" before and during the 1980s "was that animals were being shot at from vessels nearby rookeries and haulouts." Ex. 36 at 11 (2001 BiOp at 6014168).

Initially listed as a single, threatened population under the ESA in 1990, Steller sea lions were reclassified by NMFS in 1997 as two distinct population segments (one "eastern" and the other "western") based on demographic and genetic differences. Ex. 28 at 34 (2014 BiOp at 1027585) (citing 62 Fed. Reg. 30,772 (June 5, 2007)). The range of the western distinct population segment in the United States, called the "Western Population" or "WDPS" herein, extends from Cape Suckling

in Alaska (144° W) westward to the westernmost of the Aleutian Islands, Attu Island. *Id*. The Western Population was listed as endangered in 1997 due to "data on population trends indicat[ing] that [it] is in danger of extinction throughout all or a significant part of its range." 62 Fed. Reg. 24,345, 24,354 (May 5, 1997).

During the 1980s, the rate of decline within the range of what is now recognized as the Western Population was as high as 15 percent annually. Ex. 28 at 34 (2014 BiOp at 1027585). Even after intentional killing stopped in 1990, counts continued to decline approximately 5 percent per year between 1990 and 2000, "resulting in a total reduction of almost 90% since the 1950s and 83% since the 1970s." Ex. 33 at 50-51 (2010 BiOp at 1054244-45). The Western Population is thought to have reached its smallest size in 2000. Ex. 25 at 51-52 (2014 BiOp 1027602-03). The most recent estimate of the size of the Western Population in the United States, issued for 2012, is approximately 52,200 sea lions. Ex. 28 at 39 (2014 BiOp at 1027590).

Though the Western Population appears to have stabilized overall, albeit at a substantially reduced level, there are still significant ongoing declines occurring in some parts of the species' range. NMFS tracks the health of the Western Population by monitoring trends within sub-regions. The western Aleutian Islands and central Aleutian Islands—considered as recently as the 1970s, along with the Gulf of Alaska, to be "the geographic center of the sea lions' distribution,"—each constitute one of the seven regions tracked. Ex. 36 at 13 (2001 BiOp at 6014170); Ex. 33 at 45 (2010 BiOp at1054239); Ex. 34 at 33 (Recovery Plan at 6014671); Ex. 28 at 37 (2014 BiOp at 1027588).

NMFS describes a "dire situation for the western Aleutian Islands sub-region," where the local Steller sea lion population still "is declining steadily at over 7 percent per year with the lowest abundance of all the sub-regions." Ex. 28 at 43 (2014 BiOp at 1027594). This negative trend appears likely to continue, as pup counts in the western Aleutian Islands have been declining at nine percent annually since 2000. *Id.* at 93 (2014 BiOp at 1027644). As a result, modeling conducted for the 2014 BiOp "predict[ed] a high probability of quasi-extinction of Steller sea lions in the western Aleutian Islands sub-region in 50 years and a near certain probability of reaching quasi-extinction in the next 100 years." *Id.* at 49 (2014 BiOp at 1027600).[1]

[1] "A quasi-extinction threshold is a population size greater than zero (ultimate extinction) that represents a minimum viable population size." Ex. 28 at 48 (2014 BiOp at 1027599). Below that threshold, factors such as "predation risk, mating failure, [and] genetic bottlenecks" will "doom the population to ultimate extinction." *Id*.

The trend in the central Aleutian Islands sub-region, likewise, is not positive. In the central Aleutian Islands, counts of adults from 2000 to 2012 are described as "stable" but the counts of pups are "declining slowly." *Id.* at 43, 93 (2014 BiOp at 1027594, 1027644).

II. COMMERCIAL GROUNDFISH FISHERIES SIGNIFICANTLY AFFECT THE ABUNDANCE AND DISTRIBUTION OF STELLER SEA LION PREY, INCLUDING BY CAUSING LOCALIZED DEPLETION.

A. Groundfish fishery management drastically reduces overall biomass.

The North Pacific waters inhabited by the Western Population of Steller sea lions, including the waters surrounding the Aleutian Islands, also support some of the largest commercial fisheries in the world. Compl., Doc. 1 at 14, ¶ 46; Answer, Doc. 28 at 9-10, ¶ 46. "Pollock, Atka mackerel, and Pacific cod are the focus of a groundfish fishery that catches more than four billion pounds of fish each year." Answer, Doc. 28 at 10, ¶ 46. The same fish species targeted by the groundfish fisheries, "are considered to be primary prey species for Steller sea lions in the WDPS." Ex. 28 at 82 (2014 BiOp at 1027633); *see also* Compl., Doc. 1 at 12, ¶ 39; Answer, Doc. 28 at 9, ¶ 39. "Concurrent with the decline of the Steller sea lion[,] Alaska groundfish fisheries underwent a period of unprecedented growth. Between the 1950's and 1990's, the total annual removal of groundfish in Alaskan waters increased from about 27,000 metric tons to 2.1 million metric tons, an increase of over 7,500 percent." *Greenpeace v. NMFS*, 106 F. Supp. 2d 1066, 1070 (W.D. Wash. 2000).

NMFS has long acknowledged that fishery removals at the scale of the Alaska groundfish fisheries can have significant effects on the marine ecosystem. Compl., Doc. 1 at 14, ¶ 47; Answer, Doc. 28 at 10, ¶ 47. "[T]he first major effect" of North Pacific groundfish fishery management is "an intentional, massive reduction of the groundfish biomass in the affected ecosystems." Ex. 24 at 2 (Marine Mammal Commission Comments at 3167484). This large reduction in biomass is by design: the goal of the fishery management strategy is, over time, to reduce the standing biomass of several groundfish stocks to approximately 40 percent of what the stock would be in the absence of fishing—a 60 percent reduction relative to the unfished level. Ex. 37 at 20, 22 (2000 BiOp at 6013728, 6013743). This approach, aimed at achieving a "consistent yield to the human population," *id*. at 29 (2000 BiOp at 6013756), can reduce substantially the available stocks of target species, altering the prey base available for animals such as sea lions that feed on those same species of fish. Compl., Doc. 1 at 14, ¶ 47; Answer, Doc. 28 at 10, ¶ 47.

For each of the three fish species targeted by the commercial fisheries in the Aleutian Islands and relied upon by Steller sea lion for prey, biomass currently is at a very low level. "Overall, the

pollock biomass in the Aleutian Islands is believed to be near historic low levels." Ex. 28 at 233 (2014 BiOp at 1027784). Aleutian Island pollock "declined significantly in abundance (~80%) between the mid-1980s and mid-1990s and has remained at these relatively low levels since then." Ex. 10 at 3 (Fritz Email at 1032261). This trend may not improve, as NMFS expects that "projected climate warming will lead to significant declines in walleye pollock recruitment." Ex. 28 at 71 (2014 BiOp at 1027622). For Atka mackerel, "[t]he abundance trend has been declining since the most recent peak in 2005," with "[t]he most recent Aleutian Islands biomass estimate from the 2012 Aleutian Islands bottom trawl survey . . . down 70% relative to the 2010 survey estimate." *Id.* at 97 (2014 BiOp at 1027648). Likewise, for Pacific cod, "[t]he biomass and numerical abundance data from the bottom shelf surveys indicate consistent declines . . . from 1991 to 2012." *Id.* at 110 (2014 BiOp at 1027661). One recent model suggests that Pacific cod has been subjected to overfishing several times in the Aleutian Islands during the past twenty years. Ex. 10 at 3 (Fritz Email at 1032261) (citing Thompson et al. 2013 (6004441)).

B. Industrial fishing can cause localized depletion of Steller sea lion prey.

NMFS recognizes that, apart from drastic, overall reductions in biomass, fishing also may result in localized depletions of the fish stock. Compl., Doc. 1 at 15, ¶ 48; Answer, Doc. 28 at 10, ¶ 48. Localized depletion refers to "rapid removals of large amounts of fish [that] can reduce their densities . . . below ecological thresholds for predators, prey, and competing species," resulting in "micro- or meso-scale competition." Ex. 37 at 35 (2000 BiOp at 6013762). "Fishing effort that targets schools of pollock or mackerel, and removes a significant percentage of a school, is likely to reduce the biomass remaining in the immediate area for at least a short period of time in a particular space." *Id.* at 73 (2000 BiOp at 6013947).

The North Pacific groundfish fisheries are prosecuted by vessels of a range of sizes using a variety of different gear types (e.g., trawl, pot, hook-and-line, and jig). However, "trawl fishing is the dominant gear" in the Bering Sea and Aleutian Islands, accounting for the majority of the overall catch, and the fishing fleet there "consists of much larger vessels than in the [Gulf of Alaska]." *Id.* at 26-27 (2000 BiOp at 6013747-48). For example, the pollock fleet includes giant factory trawlers up to 344 feet in length and the Atka mackerel fleet includes large vessels that use bottom trawls to capture huge quantities of fish by towing large nets for three to sixteen miles in a 150-foot wide or greater swath along the ocean floor. On average, the trawl boats remove more than 120 million pounds of Atka mackerel and more than 20 million pounds of Pacific cod each year from the

Aleutian Islands. Compl., Doc. 1 at 15, ¶ 49; Answer, Doc. 28 at 10, ¶ 49. No substantial directed fishing for pollock has taken place in the Aleutian Islands since trawl restrictions were adopted more than a decade ago. *See infra* at 9-10.

According to NMFS, trawls are more likely to cause localized depletions than other gear, such as hook-and-line and pot gear. *See* Ex. 37 at 27 (2000 BiOp at 6013748). As NMFS has observed, "the removal of a portion of a fish school by a trawl net must create at least a temporary localized depletion (i.e., a gap in the prey school)." Ex. 36 at 16 (2001 BiOp at 6014219). "[T]he behavior of the fishing fleet itself" also increases the likelihood of localized depletion. Ex. 37 at 73 (2000 BiOp at 6013947). NMFS explains that this is because trawl vessels generally "use fish finders and . . . search for prey until they have found schools or aggregations of suitable density." *Id.* at 18 (2000 BiOp at 6013720). The trawlers then "continue to trawl that school (or set of schools) until such time as their size or density is no longer sufficient to justify further trawling, and then to resume searching until another aggregation of suitable density is located." *Id*. While "Atka mackerel don't have a swim bladder and therefore are not evident on fish finders," the fishery is similarly likely to cause localized depletion because vessels "trawl the same locations repeatedly . . . ." *Id*.

III. LOCALIZED DEPLETION ADVERSELY AFFECTS STELLER SEA LIONS.

According to NMFS, industrial fishing has the potential to affect sea lions in several ways, including "overall ecosystem-wide reductions in prey biomass, local and temporal depletions of prey, and reduced quality (size, age and caloric value) of individual prey by selective removal of larger, older individuals." Ex. 33 at 72g (2010 BiOp at 1054362). Fisheries may negatively affect Steller sea lion prey availability over both the short- and long-term, with disproportionately severe impacts possible at a local scale owing to "localized depletions and spatial heterogeneity of prey habitat." *Id.* at 104 (2010 BiOp at 1054465). Trawling and other intensive fishing may disadvantage Steller sea lions not only by removing potential prey within their foraging areas, but also by disrupting the normal schooling behavior of the prey species. Compl., Doc. 1 at 15, ¶ 48; Answer, Doc. 28 at 10, ¶ 48.

As NMFS explains, because "Steller sea lions depend on temporally and spatially reliable concentrations of prey near rookeries and haulouts, . . . localized depletion of prey in important sea lion foraging areas could result in deleterious population-level consequences." Ex. 28 at 226 (2014 BiOp at 1027777). Steller sea lions, like other mammals in the *Otariidae* family, are vulnerable to localized depletion as consequence of their breeding strategy:

> Female otariids have long lactation periods and rely on food resources adjacent to the rookery or haulout where their offspring are located to meet their energy demands. This reproductive strategy is optimal where prey resources are concentrated and predictable near rookeries and haulouts but can render otariid populations susceptible to localized prey depletion.

Id. at 54 (2014 BiOp 1027605).

There is a high potential for competition between the commercial fisheries and Steller sea lions in the Aleutian Islands, owing to the topography and distribution of fish habitat. The "potential groundfish habitat occurs primarily in narrow bands around the island chain, with the majority of habitat within the 20 [nautical mile] critical habitat buffer around Steller sea lion haulouts and rookeries." *Id.* at 89 (2014 BiOp at 1027640). Consequently, in the Aleutian Islands, "almost all fishing activity that takes place within 20 [nautical miles] of land is within designated Steller sea lion critical habitat." *Id.* at 143 (2014 BiOp at 1027694). Further, the underwater habitat in the Aleutian Islands has been described as patchy, with physical features that support seasonal aggregations of fish in only certain locations—aggregations that likely "are highly important" to both fishermen and Steller sea lions. *See* Ex. 17 at 1 (Gerke Email); Ex. 44 at 3, 14 (Rotterman Comments at 1009861, 1009955); Ex. 5 at 10-12, 13-14 (Conners et al. 2013 at 6011405-07, 60011422-23 (Fig. 7)). At least one previous study found that "fishery harvest rates in localized areas may have been high enough to affect prey availability of Steller sea lions" in the Aleutian Islands. Ex. 28 at 102 (2014 BiOp at 1027653) (citing Lowe and Fritz 1997 (6003133)).

IV. FOR MORE THAN TWO DECADES, NMFS HAS ADOPTED MEASURES TO REDUCE COMPETITION BETWEEN THE FISHERIES AND SEA LIONS.

A. NMFS's modest, initial conservation measures to protect Steller sea lions from the fisheries may have slowed but did not stop the decline of the Western Population.

Since Steller sea lions were first listed as threatened in 1990, nearly 25 years ago, NMFS has consistently recognized the potential for fisheries competition and localized depletion, adopting measures of varying scope and degree intended to limit fishing within important Steller sea lion habitat. In 1990, in the Steller sea lion's initial listing notice, NMFS observed that "[s]ome data show a high negative correlation between the amount of walleye pollock caught and sea lion abundance trends in the eastern Aleutians and central Gulf of Alaska," suggesting that fishing "is a contributing factor in the decline." 55 Fed. Reg. 49,204, 49,208 (Nov. 26, 1990). NMFS therefore established a no-fishing buffer zone of three nautical miles around the principal rookeries in the Gulf

of Alaska and Aleutian Islands along with a prohibition on shooting Steller sea lions. *Id.* at 49,209; *see also* Ex. 33 at 72c (2010 BiOp at 1054358).

NMFS expanded this action in 1991, following an ESA consultation wherein the agency concluded that the Pacific pollock fishery would "jeopardize the continued existence or recovery of the threatened Steller sea lion," and adopted an emergency ban on pollock trawls within 10 nautical miles of 14 sea lion rookeries in the Gulf of Alaska. 56 Fed. Reg. 28,112, 28,112-15 (June 19, 1991); *see also* Ex. 33 at 72c (2010 BiOp at 1054358).

In the Aleutian Islands, management measures were adopted in 1993 to split the federal waters surrounding the islands into three fishery management zones: Areas 541, 542, and 543. 58 Fed. Reg. 37,660 (July 13, 1993); Ex. 33 at 72d (2010 BiOp at 1054359). The effect of the measures was to split the total allowable catch between the three areas; prior to this change, catch limits were set for the entire Bering Sea and Aleutian Islands region, allowing boats to harvest all of the catch for some species in relatively small areas. *See* 58 Fed. Reg. 21,695, 21,696 (Apr. 23, 1993). The goal of the split was to reduce "undesirable effects of highly concentrated effort," including "the potential for localized depletion of groundfish" and "intensified competition with marine predators for fishery resources." *Id.*

The institution of this modest patchwork of trawl restrictions in critical habitat during the 1990s appeared to slow, but did not halt, the decline of the Western Population. The Western Population "continued to decline at approximately 5% per year throughout its range" during the 1990s. Ex. 33 at 50 (2010 BiOp 1054244).

B. Continuing declines and court orders prompted additional protection measures for the Western Population.

Despite the continuing decline, neither NMFS nor the North Pacific Fishery Management Council (Council), a quasi-governmental organization comprised of fishing and state representatives, *see* 16 U.S.C. § 1852(b)(2)(B), (C), took additional action to address the continuing severe decline. As a result, several conservation groups, including Greenpeace and American Oceans Campaign, a predecessor of Oceana, initiated litigation in 1998 challenging NMFS's determination that it could authorize groundfish fisheries consistent with its obligation under the ESA and NEPA.

In the first of four cases in the Western District of Washington, the court reviewed a 1998 biological opinion (1998 BiOp) that assessed the effects of the pollock and Atka mackerel fisheries as proposed for 1999-2001. *Greenpeace v. NMFS*, 55 F. Supp. 2d 1248, 1252-53 (W.D. Wash. 1999) (*Greenpeace I*). The 1998 BiOp found that competition between the pollock fisheries and Steller sea

lions was likely and would result in localized depletion; it concluded "that the pollock fisheries were likely to jeopardize the continued existence of Steller sea lions and to adversely modify their critical habitat." *Id*. at 1256-57. The court upheld this conclusion against a fishing industry challenge, *id*. at 1262, and granted summary judgment on the conservation groups' claim that NMFS's reasonable and prudent alternative arbitrarily failed to provide sufficient new protections for Steller sea lions. *Id*. at 1264-67. On remand, NMFS adopted new restrictions on pollock fishing across the Western Population's range, including a complete closure of the Aleutian Islands to directed pollock fishing. Ex. 28 at 27, 120 (2014 BiOp at 1027578, 1027671).

Subsequently, the court ruled that NMFS unlawfully lacked a fisheries-wide biological opinion that comprehensively assessed the cumulative impacts of the agency's ongoing authorization of the North Pacific groundfish fisheries as a whole. In 2000, the court enjoined all groundfish trawl fishing in designated sea lion critical habitat until NMFS completed "a comprehensive opinion adequately addressing the full impact" of ongoing fishing authorizations in the North Pacific. *Greenpeace v. NMFS*, 80 F. Supp. 2d 1137, 1142-43, 1150 (W.D. Wash. 2000) (*Greenpeace II*) (merits); *Greenpeace v. NMFS*, 106 F. Supp. 2d 1066, 1080 (W.D. Wash. 2000) (*Greenpeace III*) (injunction).

The injunction remained in effect from July 2000 until November 2000, when NMFS finally issued a comprehensive, groundfish fishery-wide biological opinion. *Greenpeace v. NMFS*, 237 F. Supp. 2d 1181, 1186 (W.D. Wash. 2002) (*Greenpeace IV*). The 2000 biological opinion (2000 BiOp) concluded that, as then managed, the North Pacific groundfish fisheries were likely to jeopardize endangered Steller sea lions and adversely modify their designated critical habitat. *Id*. This conclusion reflected NMFS's identification of "[t]he high degree of overlap between these fisheries and the foraging needs of Steller sea lions" and finding that the fisheries therefore "compete with Steller sea lions for common resources." Ex. 37 at 39 (2000 BiOp at 6013766). The 2000 BiOp based its overlap analysis on a conclusion that overlap in any one of several different ways (e.g., size of prey, place, time, depth) created a risk of competition for important prey species. *See* Ex. 37 at 37-39 (2000 BiOp at 6013764-66); *see also id.* at 59 (2000 BiOp at 6013823) ("The greater degree of overlap . . . the greater concern that competitive interaction occurred."). As required by the ESA, NMFS then developed a reasonable and prudent alternative that added substantially more protective measures across the entire range of the Western Population. In addition to the existing Aleutian Islands pollock closure, NMFS "imposed a series of heightened regulations . . . including the complete closure of two-thirds of Steller sea lion critical habitat to all fishing for pollock, Pacific

cod, and Atka mackerel, seasonal catch limits within the remainder of critical habitat to spatially distribute the fishing, and a system of four seasons inside critical habitat and two seasons outside critical habitat to temporally redistribute the fishing." *Greenpeace IV*, 237 F. Supp. 2d at 1186.

C. Lesser Steller sea lion protection measures were adopted for the western and central Aleutian Islands.

The protective measures set forth by the 2000 BiOp were never fully implemented in all areas of the Western Population's range. A rider to an appropriations bill in Congress delayed implementation of the reasonable and prudent alternative and required NMFS and the Council to consult on protection measures. *See Greenpeace IV*, 237 F. Supp. 2d at 1186-87; Ex. 28 at 14-15 (2014 BiOp at 1027565-66). Measures designed by the Council and approved by NMFS were implemented beginning in 2002. 67 Fed. Reg. 56,692, 56,692-93 (Sept. 4, 2002).

Under the 2002 rule, NMFS and the Council left in place many of the measures contained in the 2000 BiOp, but substantially reduced restrictions intended to reduce competition with the groundfish fisheries in the western and central Aleutian Islands. For example, the Council authorized substantial fishing for both Atka mackerel and Pacific cod within sea lion critical habitat in the central and western Aleutian Islands, *see* Ex. 35 at 18-19 (2003 Supp. BiOp at 6014420-21), even though the 2000 BiOp would have completely closed critical habitat to all trawl fishing in these two sub-regions. Ex. 33 at 122a (2010 BiOp at 1054802, Fig. 2.19). Further, the closure of the entire Aleutian Islands to pollock fishing, adopted in 1999 "due to concerns for Steller sea lion recovery," was eased to allow directed pollock fishing in the Aleutian Islands in areas outside of critical habitat. Ex. 28 at 120 (2014 BiOp at 1027671).

These changes meant that, as of 2002, the measures in place to protect Steller sea lions from the effects of the Atka mackerel and Pacific cod trawl fisheries were much less stringent in the central and western Aleutian Islands (i.e., west of 178° W longitude) than elsewhere in the Western Population's range. *See*, *e.g.*, Ex. 33 at 117 (2010 BiOp at 1054524) (stating "[f]ishery measures implemented in 2002 west of 178° W for Atka mackerel in Steller sea lion critical habitat were not as conservative as they were to the east" because "a greater percentage of critical habitat was open to groundfish fisheries"); *id*. at 122b (2010 BiOp at 1054803, Fig. 2.20) (showing partial trawl restrictions in critical habitat west of 178° W but full trawl exclusions eastward); Ex. 36 at 8 (2001 BiOp at 6014149-50) (describing a partial closure for Atka mackerel west of 178° W but no fishing for mackerel in critical habitat east of that line); *id*. at 21 (2001 BiOp at 6014283) (same); Ex. 35 at

20 (2003 Supp. BiOp at 6014422) (showing a much smaller percentage of critical habitat closed to the Pacific cod trawl fishery in the Aleutian Islands (23%) than other management areas (51-70%)).

V. NMFS ADOPTED NEW STELLER SEA LION PROTECTION MEASURES FOR THE WESTERN AND CENTRAL ALEUTIAN ISLANDS IN 2010.

From 2000 to 2008, following the institution of heightened Steller sea lion protections beginning in 2000, the overall Western Population appeared to stabilize—though at a fraction of its historic level. Ex. 35 at 50 (2010 BiOp at 1054244). But serious declines of four to seven percent annually continued unabated in the western and central Aleutian Islands (west of 178° W), where protection measures were the weakest. *Id*. at 34, 52 (2010 BiOp at 1054154, 1054246). At the request of the Council, NMFS reinitiated ESA consultation in 2006. Ex. 33 at 22 (2010 BiOp at 1054142).

A. NMFS's 2010 BiOp determined that additional fishing restrictions were required to protect Steller sea lions in the western and central Aleutian Islands.

In the face of the significant ongoing decline in the Aleutian Islands, NMFS issued a new biological opinion for the Bering Sea/Aleutian Islands and Gulf of Alaska Fishery Management Plans in 2010 (the "2010 BiOp"). Continuing a long line of similar findings, the 2010 BiOp found that ongoing federal authorization of the North Pacific groundfish fisheries, as then prosecuted, was likely to jeopardize the continued existence and recovery of the Western Population of Steller sea lions and adversely modify the species' designated critical habitat. Ex. 33 at 32, 34-35, 111-115 (2010 BiOp at 1054152, 1054154-55, 1054508-12).

The 2010 BiOp expressed a heightened concern for Steller sea lions in the western and central Aleutian Islands. It noted particularly severe ongoing declines in the western Aleutian Islands and the risk of local extirpation if demographic trends continued there unabated. *Id.* at 52, 112, 116 (2010 BiOp at 1054246, 1054509, 1054523). NMFS assessed these declines using the criteria described in a 2008 recovery plan for the Western Population (Recovery Plan), which emphasized the importance of maintaining healthy Steller sea lion populations across "all parts of the range," including in the western Aleutian Islands sub-region. *See* Ex. 34 at 32-34 (Recovery Plan at 6014670-72).[2] Consistent with the analysis in the Recovery Plan, the 2010 BiOp found that the extirpation of Steller sea lions in the western Aleutian Islands would be significant to the Western

[2] A recovery plan includes objective, measurable criteria against which an agency may assess an endangered species' progress toward recovery and potential for eventual de-listing. *See* 16 U.S.C. § 1533(f)(1)(B).

Population as a whole, and would be expected to appreciably reduce the likelihood of the Western Population's overall survival and recovery in the wild. Ex. 33 at 112 (2010 BiOp at 1054509).

The 2010 BiOp acknowledged that "specific mechanisms related to competitive interactions" between sea lions and commercial fisheries are difficult to verify empirically. *Id.* at 32 (2010 BiOp at 1054152); *see also id*. at 103 (2010 BiOp at 1054464) ("We acknowledge that the elusive cause-effect connection between the catch of fish in 'Boat A' and response of 'Steller sea lion B' will likely never be made."). Nonetheless, NMFS relied on the substantial evidence that such a connection between the industrial fisheries and Steller sea lion decline exists. For example, the 2010 BiOp identified a "high degree" of overlap between the pollock, Atka mackerel, and Pacific cod fisheries and the foraging needs of Steller sea lions. *Id.* at 72k (2010 BiOp at1054366).

To assess overlap, the 2010 BiOp employed "a simplified version" of "qualitative criteria . . . used by NMFS" previously, including in the 2000 BiOp. *Id*. at 72j (2010 BiOp at 1054365). Undertaking "a step-wise approach," the 2010 BiOp identified important Steller sea lion prey species (based on the frequency of occurrence within their scat), and then assessed, for each important prey species, whether available information indicated overlap between the fishery and Steller sea lion foraging behavior in (i) size of prey, (ii) depth of prey species, (iii) spatial overlap, *or* (iv) temporal overlap; the analysis also assessed whether the relevant fisheries could be described as (v) "compressed."[3] *Id*. at 72g, 72j, 74-79, 123 (2010 BiOp at 1054362, 1054365, 1054399-404, 1054852). Consistent with NMFS's previous finding that overlap is not necessary in all dimensions to "contribute to jeopardy or adverse modification," Ex. 37 at 38-39 (2000 BiOp at 6013765-66), and NMFS's recognition of "confound[ing] . . . factors" that can make overlap "difficult to judge," the 2010 BiOp identified any fishery overlapping in at least three of the five potential categories as potentially affecting Steller sea lions. Ex. 33 at 74, 123 (2010 BiOp at 1054399, 1054852). The 2010 BiOp's conclusion that there is a high degree of overlap between the pollock, Atka mackerel, and Pacific cod fisheries and Steller sea lions matches the conclusions reached by NMFS previously. *Id.* at 72g (2010 BiOp at 1054362) ("The overlap between groundfish fisheries and Steller sea lions and their designated critical habitat is well established through the extensive formal consultation history on these fisheries.").

[3] The 2010 BiOp describes "compressed" fisheries as "concentrate[ed] in time and space," with a high percentage of catch taken in a small number of high-catch areas. Ex. 33 at 78-79 (2010 BiOp at 1054403-04). According to NMFS, fisheries with "higher catch rates would be more likely to result in localized depletions . . . ." *Id*. at 79 (2010 BiOp at 1054404).

The 2010 BiOp also observed that Steller sea lion populations have fared better in some regions than others, and the areas of improvement coincide with areas where more protective measures have been implemented. *Id.* at 85, 96, 111, 114-115 (2010 BiOp at 1054446, 1054457, 1054508, 1054511-12). Conversely, in those areas where there are fewer fishing restrictions and where a high proportion of the total catch is removed within critical habitat—particularly west of 178° W longitude, including the western and central Aleutian Islands—population numbers continue to decline. *See, e.g., id.* at 32, 96, 105, 114-115 (2010 BiOp at 1054152, 1054457, 1054502, 1054511-12). "From these data and observations, NMFS conclude[d] that the relative intensity of groundfish fisheries as [then] prosecuted in the western and central Aleutian Islands sub-regions, particularly within critical habitat, is negatively associated with Steller sea lion population trends since 2000 . . . ." *Id*. at 32 (2010 BiOp at 1054154).

Ultimately, the 2010 BiOp found that competition from the fisheries "is likely one component of an intricate suite of natural and anthropogenic factors affecting Steller sea lion numbers and reproduction." *Id.* at 38, 119 (2010 BiOp at 1054158, 1054538). NMFS found that the weight of scientific evidence continued to support a connection between fisheries and Steller sea lion declines in the western and central Aleutian Island sub-regions and concluded that the possibility that fishery removals of prey in these areas "may be one of several primary causes of the observed declines in non-pup counts cannot be eliminated." *Id.* at 112 (2010 BiOp at 1054509); *see also id.* at 38 (2010 BiOp at 1054158). Unable to rule out fisheries as the cause of Steller sea lion decline and lack of recovery, NMFS concluded that the groundfish fisheries were "likely to jeopardize the continued existence of the [Western Population] of Steller sea lion" and "likely to adversely modify" the species' designated critical habitat." *Id*. at 112, 115 (2010 BiOp at 1054509, 1054512).

As a result, the 2010 BiOp included a reasonable and prudent alternative to the then-existing fishery management regime in the North Pacific, focused on changes necessary to limit fishery competition in the western and central Aleutian Islands. *Id.* at 35-39 (2010 BiOp at 1054155-59). In Area 543, corresponding to the western Aleutian Islands sub-region, "restrictions for the Atka mackerel and Pacific cod fisheries were greatly increased . . . effectively eliminating fishing for these species in this Area," both within and outside of critical habitat. Ex. 28 at 130 (2014 BiOp at 1027681). In the central Aleutian Islands sub-region, "[r]estrictions on Atka mackerel and Pacific cod harvests . . . were greatly increased inside critical habitat" in Area 542. *Id*. at 130 (2014 BiOp at 1027681). In Area 542, NMFS also imposed an overall reduction in the amount of Atka mackerel that could be caught, and limited the fraction of that new, reduced catch that could be taken. Ex. 33

at 36-37 (2010 BiOp at 1054156-57). In Area 541, increased fishery restrictions for Pacific cod were implemented in critical habitat. Ex. 28 at 130 (2014 BiOp at 1027681). NMFS determined that measures adopted were all "necessary" and at least minimally "sufficient." Ex. 33 at 38-39 (2010 BiOp at 1054158-59).

The 2010 BiOp concluded that the reasonable and prudent alternative "must be implemented quickly in order to halt the immediate effects of the fisheries on the acute population decline" in the western and central Aleutian Islands. Ex. 33 at 35 (2010 BiOp at 1054155). NMFS therefore implemented it by issuing an interim final rule that took effect on January 1, 2011. 75 Fed. Reg. 77,535 (Dec. 13, 2010) (Interim Final Rule).

NMFS's issuance of the 2010 BiOp followed reviews by the Council and its Scientific and Statistical Committee and Advisory Panel, "an internal Agency review . . . by NMFS scientists familiar with Steller sea lions, the North Pacific Ocean ecosystem, and the commercial fisheries," and a public comment period during which more than 10,000 comments were received, "including many extensive scientific reviews of the document and the scientific underpinnings of its conclusions." Ex. 33 at 22 (2010 BiOp at 1054142).

B. The 2010 BiOp was validated by this Court and the Ninth Circuit.

The State of Alaska and various fishing industry entities brought a lawsuit in this Court challenging the 2010 BiOp, Interim Final Rule, and a contemporaneously-issued environmental assessment. *See Alaska v. Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 130 at 1-3 (D. Alaska, Jan. 19, 2012). The Court concluded that the 2010 BiOp and accompanying sea lion protection measures were premised on application of the proper ESA standards. *Id*. at 3, 32 n.159. The Court also found that sufficient evidence supported the 2010 BiOp's conclusions that—without adoption of a reasonable and prudent alternative—the North Pacific groundfish fisheries were likely to jeopardize the continued existence of the Western Population and adversely modify the species' critical habitat. *Id*. at 3. The Court noted NMFS's acknowledgement "that the evidence is not definitive," but observed that the ESA "does not require definitive proof of causation" owing to "the agency's duty to affirmatively prevent jeopardy or adverse modification." *Id.* at 32-33 & n.159.

Both the 2010 BiOp and this Court's decision upholding it were affirmed by the Ninth Circuit Court of Appeals. *See generally Alaska v. Lubchenco*, 723 F.3d 1043 (9th Cir. 2013). The Ninth Circuit confirmed that NMFS "utilized appropriate standards to find that continuing previous fishing levels in [the western and central Aleutian] sub-regions would adversely modify the critical

habitat and jeopardize the continued existence of the entire [Western P]opulation." *Lubchenco*, 723 F.3d at 1047.

While this Court upheld the 2010 BiOp and NMFS's Interim Final Rule in all respects, it found that NMFS had not complied with NEPA. *Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 130 at 49-52. More specifically, the Court ruled that NMFS's conclusion that an environmental impact statement (EIS) was not required was "unreasonable," owing to anticipated impacts on the human environment from the action, including "significant beneficial effects" on the Western Population of Steller sea lions. *Id*. at 49-50. The Court remanded the matter to NMFS, entered a narrow injunction requiring it to prepare a full EIS, and left in place the new protection measures for the western and central Aleutian Islands. *Id*. at 54-56; *see also Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 142 (D. Alaska Mar. 5, 2012).

VI. THE DRAFT EIS REFLECTED THE COUNCIL'S FOCUS ON INCREASING FISHING IN THE ALEUTIAN ISLANDS.

Following the schedule adopted by this Court, NMFS issued a draft EIS (DEIS) in May 2013. *See generally* Ex. 30 & 31 (DEIS volumes 1 and 2). During the scoping and drafting process for the DEIS, NMFS did not independently develop and evaluate different fishing alternatives, but instead relied on the Council to develop all the alternatives. Ex. 30 at 24 (DEIS at 3187585). From the start of the process, both NMFS and the Council directed attention toward increasing the amount of fishing allowed in the Aleutian Islands. The stated purpose of the DEIS, in fact, was to reduce economic impacts caused by fishing protections to the extent practicable "while still providing necessary protection to Steller sea lions." *Id.* at 35 (DEIS at 3187649). In essence, the Council and agency viewed the NEPA process as a mechanism to increase fishing opportunities as much as possible. *See id.*

In the DEIS, NMFS evaluated the environmental impacts of five alternative sets of Steller sea lion protection measures for the western and central Aleutian Islands. *Id.* at 24 (DEIS at 3187585). The first alternative, or "no action" alternative, assessed the protection measures set forth as the "reasonable and prudent alternative" in the 2010 BiOp and implemented by the Interim Final Rule, and the other four alternatives evaluated protection measures that allowed more fishing. *Id.* at 25 (DEIS at 3187586).

Alternative 5 was described as the preliminary preferred alternative and it contained a set of fishing measures that substantially increased fishing both within and outside critical habitat. *Id.* at 41-45 (DEIS at 3187773-77). It allowed for pollock fishing within critical habitat in the Aleutian

Islands for the first time since the directed pollock fishery was closed there in 1999. *Id.* at 35, 46-48 (DEIS at 3187649, 3187778-80); Ex. 28 at 232 (2014 BiOp at 1027783) ("For the first time since 1999, the proposed action [Alternative 5] would open select portions of critical habitat to the directed pollock fishery, presumably to increase the viability of the Aleutian Islands pollock fishery given the dismal catches outside of critical habitat since 2005."). It also allowed for substantially more directed fishing for both Atka mackerel and Pacific cod within and adjacent to critical habitat as compared to the Interim Final Rule. Ex. 30 at 27-28, 41-44 (DEIS at 3187599-3187600, 3187773-76). For example, it reversed the 2010 BiOp's and the Interim Final Rule's complete ban on retention of Atka mackerel and Pacific cod anywhere in Area 543, authorizing fishing inside and outside of habitat there. Compare *id.* at 40 (DEIS at 3187730) with *id.* at 48 (DEIS at 3187780). Alternative 5 also opened critical habitat in Areas 541 and 542 to directed fishing for Atka mackerel and Pacific cod in areas that were off limits under the 2010 BiOp and Interim Final Rule and eliminated the reduction in overall Atka mackerel harvest. *Id.*

In a memorandum dated May 28, 2013, NMFS Protected Resources Division provided initial feedback on Alternative 5 and advised that "the Council may wish to consider modifications to the proposed action to protect the conservation value of critical habitat." Ex. 32 at 16 (PRD Initial Feedback at 1003387). NMFS recognized that the Council chose Alternative 5 in order to increase fishing and to pressure the agency into rolling back conservation measures. Ex. 8 at 1 (DeMaster Email at 1030321) ("Well - it appears an overwhelming majority of the Council . . . would like to test the Agency's willingness to use its discretion under the ESA to back away from the existing conservation measures. The Council adopted [Alternative 5] as the preferred alternative - which is the one . . . [that] pushes the conservation measures back to something akin to pre-2011."). Because the preferred alternative eliminated fishing restrictions that were in place under the status quo and had the net effect of increasing fishing inside of critical habitat as compared to the action analyzed in the 2010 BiOp, Ex. 28 at 16 (2014 BiOp at 1027567), NMFS re-initiated consultation under the ESA. *Id*.

On January 10, 2014, NMFS requested that this Court amend its earlier scheduling order and extend the court-ordered dates established for publication of the required EIS and for issuance of a new final rule—with the goal of allowing additional time to refine the proposed alternative in an effort to insure compliance with both NEPA and the ESA. *See Lubchenco*, No. 3:10-cv-00271-TMB, Defs.' Mot. to Extend, Doc. 171 (filed Jan. 10, 2014). As the basis for its request, NMFS indicated that the forthcoming biological opinion might conclude that the preliminary preferred alternative

jeopardized Steller sea lions, in which case an extension of the court-ordered deadlines would better allow NMFS to involve the Council and the public in the modification of the preferred alternative based on information in the biological opinion. The court granted NMFS's motion to extend the deadlines. *Lubchenco*, No. 3:10-cv-00271-TMB, Joint Order on Defs.' Mot. to Extend Time, Doc. 193 (D. Alaska Feb. 20, 2014).

VII. NMFS'S 2014 BIOP CONCLUDES THAT THE PROTECTION MEASURES ADOPTED IN 2010 ARE NO LONGER NECESSARY AND THAT NEW FISHING CAN BE ALLOWED FOR POLLOCK INSIDE CRITICAL HABITAT.

NMFS Protected Resources Division issued the 2014 BiOp addressing the increased fishing in Steller sea lion habitat authorized by Alternative 5 on April 2, 2014. *See generally* Ex. 28 (2014 BiOp). Many of the findings in the 2014 BiOp on the potential impacts of the groundfish fisheries on Steller sea lions hew closely to the findings of the 2010 BiOp which, according to NMFS, "remains valid." 79 Fed. Reg. at 70,296; *see also* Ex. 1 at 2 (Balsiger Memo at 1026836) ("The 2014 BiOp does not reverse the conclusions of the 2010 BiOp."). The 2014 BiOp does, however, conclude that NMFS lawfully could authorize a significant increase in fishing in the western and central Aleutian Islands. This conclusion was premised upon a new approach to assessing the overlap of Steller sea lion foraging and the fisheries that was criticized heavily by NMFS scientists.

A. The 2014 BiOp acknowledges the risk of localized depletion and adverse population-level effects on Steller sea lions.

Unlike the 2010 BiOp, which broadly analyzed ongoing authorization of the groundfish fisheries under the fishery management plans and overall management framework for the Bering Sea, Aleutian Islands, and Gulf of Alaska, the 2014 BiOp focuses narrowly on the western and central Aleutian Islands (i.e., Fishery Management Areas 543, 542, and 541) and the effects there of Alternative 5, the preliminary preferred alternative. Ex. 28 at 16-17 (2014 BiOp at 1027567-68). The 2014 BiOp concludes that Alternative 5 will not jeopardize Steller sea lion survival or recovery or adversely modify the species' critical habitat. *Id.* at 250 (2014 BiOp at 1027801).

Following two external reviews of the 2010 BiOp,[4] NMFS "identified areas that warranted further analysis" and began work on several new scientific studies, the results of which are

[4] One review was commissioned by NMFS through the Center for Independent Experts; the other was organized by the states of Washington and Oregon. Ex. 28 at 6 (2014 BiOp at 1027557). The state review was deemed "external" but not "independent" by NMFS because state officials selected the review co-chairs themselves. *Id.* at 8 n.2 (2014 BiOp at 1027559).

incorporated into the 2014 BiOp. *Id*. at 6 (2014 BiOp at 1027557). As a result of these studies, NMFS did not rescind or even change the 2010 BiOp. According to NMFS, "[t]he analysis contained in the 2010 FMP BiOp remains valid," and the agency still relies upon it as the current, comprehensive biological opinion for the North Pacific groundfish fisheries. 79 Fed. Reg. at 70,296.

Although Alternative 5 was specifically developed to "replace the [reasonable and prudent alternative] from the 2010 BiOp," Ex. 28 at 134 (2014 BiOp at 1027685), and ultimately authorizes more fishing than the 2010 BiOp deemed lawful pursuant to the ESA, much of the information and analysis in the 2014 BiOp closely track that set forth in the 2010 BiOp. For example, consistent with both the Recovery Plan and 2010 BiOp, the 2014 BiOp acknowledges "the significance of each sub-population . . . to the continued existence of the [Western Population]." *Id.* at 246 (2014 BiOp at 1027797). Accordingly, like the 2010 BiOp before it, the 2014 BiOp adopts the view that "if the proposed action is likely to reduce the survival or recovery of any sub-population (sub-region)," then NMFS must conclude that the agency "had not ensured that the proposed action was unlikely to reduce the survival and recovery of the [Western Population]." *Id*.

As was the case in 2010, the 2014 BiOp confronts the "dire" situation in in the western Aleutian Islands sub-region, with a population that is the lowest of all the sub-regions and declining more than 7 percent a year, along with a population in the central Aleutian Islands sub-region where pup counts are declining slowly. Ex. 28 at 43, 93 (2014 BiOp at 1027594, 1027644). The 2014 BiOp even predicts that there is a high probability the population in the western Aleutian Islands sub-region will be extinct in 50 years and a near certain probability of extinction in 100 years. *Id.* at 49 (2014 BiOp at 1027600).

Like the 2010 BiOp, the 2014 BiOp proceeds from the premise that "fisheries have the potential to reduce the availability of food to Steller sea lions, and thus the potential to indirectly affect the birth rate of Steller sea lions." *Id.* at 54 (2014 BiOp at 1027605). Again, like its predecessor, the 2014 BiOp therefore focuses on "whether the groundfish fisheries compete with sea lions by creating localized depletions of fish stocks." *Id.* at 226 (2014 BiOp at 1027777). According to the 2014 BiOp, localized depletion could cause "chronic nutritional stress where reduced food resources result in increased maternal investment into juveniles at the expense of high reproduction." *Id.* at 244 (2014 BiOp at 1027795). The 2014 BiOp's "effects analysis" therefore assessed "whether the proposed groundfish fisheries are likely to result in local depletions of prey in times and areas that are important to sea lions, with an emphasis on adult females in winter and spring." *Id.*.

In line with recent studies confirming the fisheries' potential to create localized depletions, *see id.* at 227 (2014 BiOp at 1027778), NMFS identified considerable cause for concern with Alternative 5, finding that all three proposed groundfish fisheries, as they would be authorized, pose a risk of localized depletion. For example, with respect to Area 543, the 2014 BiOp concludes that "NMFS cannot rule-out the potential for the Area 543 pollock fishery to create a localized depletion of pollock," as "[t]he fishery would occur in an apparent critical time and area for Steller sea lions . . . ." Ex. 28 at 233 (2014 BiOp at 1027784). NMFS reached a similar conclusion with respect to the pollock fishery in Areas 542 and 541, stating it "may create temporary localized depletion of pollock inside critical habitat in winter that may reduce the numbers and reproduction of sea lions in the immediate vicinity of the fishery." *Id.* at 245-46 (2014 BiOp 1027796-97). The 2014 BiOp also found that Atka mackerel "may be more susceptible to localized depletion" than pollock and cited a previous study which found that Aleutian Island "harvest rates in localized areas may have been high enough to affect prey availability of Steller sea lions." *Id.* at 210, 102 (2014 BiOp at 1027761, 1027653). With respect to Pacific cod, the 2014 BiOp cited "[a]necdotal reports from industry indicat[ing] that Pacific cod are abundant and in dense, highly localized concentrations in February and March," and found that "given potentially high localized exploitation rates, it is unknown whether the fisheries cause local and temporal depletion of . . . Pacific cod. *Id.* at 117, 210 (2014 BiOp at 1027668, 1027761).

B. Relying on a new framework and novel supporting analyses, the 2014 BiOp concludes that a lack of Steller sea lion and fisheries overlap will prevent or mitigate the harmful effects of localized depletion.

Despite the 2014 BiOp's findings that the fisheries' expansion into Steller sea lion critical habitat poses a risk of localized depletion and negative "population-level consequences," Ex. 28 at 226 (2014 BiOp at 1027777), the opinion nonetheless concludes that the fisheries are unlikely to jeopardize the survival or recovery of Steller sea lions or adversely modify their critical habitat. *Id.* at 250 (2014 BiOp at 1027801). This no-jeopardy conclusion is premised on NMFS's fundamentally new approach to evaluating the degree to which Steller sea lion foraging behavior and the fisheries overlap. *Id*. at 246-49 (2014 BiOp at 1027797-800); *see also* Ex. 20 at 1 (Kurland Email at 1025686) (citing "new analyses to examine the extent of spatial and temporal overlap between the fisheries and sea lions" as a reason "why we are coming to a no jeopardy or adverse modification conclusion this time."); Ex. 1 at 2 (Balsiger Memo at 1026837) (noting "no-jeopardy conclusion" reflects an analysis "about the degree to which fishery harvests coincide in space and time with feeding sea lions.").

1. The 2014 BiOp institutes a new analytical framework and new data analyses for evaluating overlap and the potential for competition.

Unlike the framework used in previous biological opinions, including the 2000 and 2010 BiOps, the 2014 BiOp assumes that competition for prey resources is *only* a concern when sea lion foraging behavior and fishing can be demonstrated to overlap in *all four* of the four potential dimensions—time, space, depth, and size of prey. *See* Ex. 28 at 212 (2014 BiOp at 1027763, Fig.5-42); *see also supra* at 13 (discussing 2010 BiOp). The 2014 BiOp does not acknowledge that its approach is new, it does not offer any reasons why a change is necessary or appropriate, nor does it explain why it requires overlap in all four dimensions of time, space, depth, and size as a perquisite to finding potential competition between Steller sea lions and the fisheries.

In addition to the 2014 BiOp's new conceptual framework for assessing overlap and the potential for competition, the 2014 BiOp also uses available data in a novel way to evaluate overlap within some of the four individual dimensions. For example, to assess the potential for spatial (or "place") overlap, the analysts responsible for the BiOp used a geographic information system (or GIS) to plot observed Steller sea lion locations against historic fishing locations for the Atka mackerel and Pacific cod fisheries and areas proposed to be open to the pollock fishery. Ex. 28 at 156 (2014 BiOp at 1027707). The data on Steller sea lions came from two sources: telemetry data from 45 tagged Steller sea lions and so-called "Platforms of Opportunity" data—i.e., historic records of Steller sea lion sightings that were made opportunistically "outside the framework of a formal sampling design" from fishing, military, tourist and other vessels as well as aircraft and some shore stations. *Id.* at 156-57 (2014 BiOp at 1027707-08); Ex. 18 at 4-5 (Himes Boor & Smith 2012 at 6042221-22). The 2014 BiOp compared this limited Steller sea lion data to known or expected fishing locations "to provide a snapshot of the available Steller sea lion at-sea location information and to examine how many of the sea lion sightings or locations overlap each fishery in each Area." Ex. 28 at 156 (2014 BiOp at 1027707).

The 2014 BiOp employs the same process and data to assess overlap in time; sea lion locations were plotted over the known locations of fishing vessels in summer and winter to determine how much overlap occurred in each season. *Id.* at 157-73 (2014 BiOp at 1027708-24).

To assess depth overlap, the BiOp uses "the data from the small number of juvenile and adult female Steller sea lions that have been fitted with telemetry tags," along with a handful of other literature and analyses on Steller sea lion diving depth, for comparison with recorded fishery depths. *Id.* at 173, 177 (2014 BiOp at 1027724, 1027728). For example, the 2014 BiOp compared the

percentage of Steller sea lion dives that overlapped with mean trawl depths, drawing conclusions about the degree of overlap between Steller sea lion foraging behavior and the fisheries. *See*, *e.g.*, *id.* at 179 (2014 BiOp at 1027730) ("If Steller sea lions in the central and western Aleutian Islands behave similarly to the animals studied in Loughlin et al. (2003) and shown in Figure 5-22, about 15% of Steller sea lion dives would overlap in depth with about 25% of the Atka mackerel trawl hauls in the Aleutian Islands.").

Finally, to assess the potential for overlap with respect to size of prey, the 2014 BiOp draws on studies estimating the length of Steller sea lion prey—and the frequency of occurrence of certain lengths—using bones and otoliths (inner ear structures) recovered from scat samples at rookeries and haulouts. *Id.* at 186-87 (2014 BiOp at 1027737-38). Scientists then estimated the average length and weight of fish taken in the groundfish fishery using data from the fishery observer program, and compared those to the estimated prey sizes that the sea lions consumed in order to evaluate potential overlap. *Id*. at 187-89 (2014 BiOp at 1027738-40).

2. The 2014 BiOp identifies overlap for each fishery in three of the four dimensions evaluated but concludes that Steller sea lions are unlikely to be exposed to localized depletion.

The 2014 BiOp acknowledges at least some overlap in all four dimensions for all of the fisheries assessed. Ex. 28 at 221 (2014 BiOp at 1027762). A "high degree" of overlap was identified in at least two of the four dimensions for all three fish species. *Id.* at 209 (2014 BiOp at 1027760) ("[f]or the proposed Atka mackerel fisheries we found a qualitatively high degree of time (summer and winter) and size overlap"); *id.* at 210 (2014 BiOp at 1027761) ("[f]or the proposed Pacific cod fisheries we found a qualitatively high degree of time (winter) and depth overlap"); *id.* ("For the proposed pollock fishery we found a qualitatively high degree of time (winter) and size overlap"). The 2014 BiOp also identifies at least one dimension for each fishery where the overlap is "low" or merely partial. *See, e.g.*, *id*. at 210 (2014 BiOp at 1027761). The 2014 BiOp does not explain the degree of overlap that corresponds to designations such as "high" or "low." *See* Ex. 22 (Logerwell Memo) (stating that overlap analysis "raises the question as to what [are] the criteria for 'minimal', 'little', 'relatively low', 'moderate' etc. overlap"). The BiOp refers to low or partial overlap as "partitioning" between the fisheries and Steller sea lions. Ex. 28 at 210 (2014 BiOp at 1027761).

Although NMFS's analysis demonstrated considerable overlap between Steller sea lion foraging activity and the fisheries, the 2014 BiOp relies on predicted lower overlap or so-called "partitioning" in one of the four overlap dimensions, depending on the species, to conclude that

localized depletion will not jeopardize Steller sea lions or adversely modify their critical habitat. *See*. *e.g.*, Ex. 28 at 228 (2014 BiOp at 1027779) (stating that "available depth data . . . indicate some partitioning between sea lion dive depth and Atka mackerel fishing depth" that would "likely mitigate" the effects on sea lions should the Atka mackerel catch "taken from critical habitat in winter result in a localized depletion"); *id.* at 229 (2014 BiOp at 1027780) (stating in section on "Effects of the Pacific Cod fishery" that "[i]t seems reasonable to assume some size partitioning between the fishery and sea lions"); *id*. at 232 (2014 BiOp at 1027783) (noting that the pollock "fishery may still be active . . . when pregnant, lactating sea lions have high energy requirements" but concluding that "[t]he observed partitioning of depth likely mitigates any localized depletion"); *id*. at 233 (2014 BiOp at 1027784) ("NMFS cannot rule-out the potential for the Area 543 pollock fishery to create a localized depletion of pollock . . . [but] NMFS expects a high degree of depth partitioning between adult female and juvenile sea lions and the pollock fishery.").

C. NMFS scientists criticized the 2014 BiOp's approach to assessing overlap as fundamentally flawed.

The 2014 BiOp was written, in large part, by a single analyst under the supervision of the Director of the NMFS Alaska Region's Protected Resource Division. Ex. 21 (Kurland Email). Many other scientists within NMFS—though they may have conducted studies or contributed analyses that were cited in the document—were not asked to review a draft of the 2014 BiOp until three weeks before it was due for public release. *See* Ex. 16 (Gerke Email); Ex. 9 at 1 (Fritz Email at 1032250). Those scientists, including NMFS's Steller sea lion coordinator and staff at the National Marine Mammal Lab and the Alaska Fisheries Science Center's Resource Ecology and Fisheries Management Division, were given one week to provide comments on the first six chapters of the draft BiOp. Ex. 16 (Gerke Email); *see also* Ex. 2 (Bengtson Email) (referring to "the short time made available" for review); Ex. 38 at 1 (NMML Memo at 1030862) (stating "[t]he short amount of time provided precludes a detailed and extensive review"). These internal agency reviewers were given only one business day to review chapter 7 on "Synthesis and Conclusions" and some scientists apparently were instructed not to comment on the ultimate conclusion. Ex. 15 at 1-2 (Gerke Email at 1017104-05); Ex. 12 (Gelatt Email at 1016885); Ex. 13 at 1 (Gelatt Email at 1016591).

Even within that limited timeframe for review, scientists with NMFS's National Marine Mammal Laboratory expressed grave concerns with the 2014 BiOp's overarching framework for identifying potential competition. These scientists rejected the notion that the lack of full overlap in

a single dimension is sufficient to conclude that the groundfish fisheries and Steller sea lions do not compete for prey resources: They advised:

> This risk analysis hinges on this overlap analysis, and the authors look at overlap in at least [four] dimensions. There is an acknowledgment that [Steller sea lions] eat Atka mackerel, cod and pollock, so that's one of the dimensions. The others are spatial, size of prey, and depth. Authors conclude . . . that there's one dimension for each fishery where it doesn't overlap with [Steller sea lions], with the implicit assumption being that one dimension of partitioning ('some') is all that's necessary to conclude that there is no resource competition and that the likelihood of reduced prey resources is small. We believe this conclusion is dangerously simplistic.

Ex. 38 at 8 (NMML Memo at 1030869). NMFS's Steller sea lion coordinator expressed a similar concern, referring to the draft 2014 BiOp's discussion of overlap and partitioning as "unsupportable." Ex. 44 at 1 (Rotterman Comments at 1009672). The final 2014 BiOp does not address these concerns; it lacks any explanation for its requirement that overlap must be demonstrated in all four dimensions as a predicate to finding competition for prey.

With respect to the specific data and analysis employed by the 2014 BiOp to assess spatial (or place) overlap, scientists in both NMFS's National Marine Mammal Laboratory and the Alaska Fisheries Science Center's Resource Ecology and Fisheries Management Division, along with NMFS's Steller sea lion coordinator, voiced concerns over the extremely limited telemetry data used in the analysis, which they cautioned were of little or no analytical value. *See*, *e.g.*, *id.* at 4 (Rotterman Comments at 1009871) (stating "[y]ou cannot draw conclusions . . . from sample sizes like these"); Ex. 38 at 6 (NMML Memo at 1030867) ("[T]elemetry data from such a limited data set should not be used in this form for this type of analysis . . . ."); Ex. 22 (Logerwell Memo) ("With such a small number of observations, or samples, the power to detect a relationship statistically, and even qualitatively, is very low.").

Another agency scientist who reviewed the draft 2014 BiOp expressed the same concern that "the estimates of spatial overlap using the available [Steller sea lion] telemetry may be very sensitive to sample size" such that "doubling the number of tagged [sea lions] might change your conclusions considerably." Ex. 7 at 1 (DeMaster Email at 1025808). He encouraged NMFS to perform a "simulation analysis . . . to look at how robust the conclusions are with the available number of tagged animals," *id.* at 3 (DeMaster Email at 1025810), and advised that "[i]f the results are sensitive to sample size, I would take them out." *Id.* at 1 (DeMaster Email at 1025808). NMFS did not perform the recommended analysis; the 2014 BiOp's lead author said there was "insufficient time for

a simulation analysis" before the opinion was due to be finalized. Ex. 14 (Gerke Email at 1025869). In its conclusion, the 2014 BiOp states that "telemetry data from more animals . . . are needed for a more complete understanding of sea lion at-sea habitat use" but nonetheless relies on an assessment of spatial overlap. Ex. 28 at 247-49 (2014 BiOp at 1027798-800).

NMFS scientists also objected to the 2014 BiOp's use of the opportunistic "platform" sightings data in the spatial analysis. As the scientists from the National Marine Mammal Laboratory explained, such "data have rarely been used at all for more than simple indications of range" "primarily because no effort data were collected along with the sighting data." Ex. 38 at 5 (NMML Memo at 1030866). In other words, such opportunistic platform data are not appropriate for evaluating special overlap because, as a consequence of how such data are obtained, "it is impossible to know which areas have no sea lions because there were no sea lions observed, or because no platforms were present." *Id*. The scientists at the National Marine Mammal Laboratory therefore concluded that the 2014 BiOp's "technique of using raw [Platforms of Opportunity] data in this exposure analysis is not defensible and is a misuse of this type of data." *Id*.; *see also* Ex. 44 at 7 (Rotterman Comments at 1009874) ("This whole section has absolutely overinterpreted and wrongly treated these telemetry data and [Platforms of Opportunity] data."). The final 2014 BiOp notes that, based on platform data NMFS "cannot infer that [an] area is not used by sea lions," although the 2014 BiOp's spatial overlap analysis is premised on making inferences of this sort to infer low spatial overlap. *See* Ex. 28 at 156, 247 (2014 BiOp at 1027707, 1027798).

Separately, NMFS scientists voiced concerns over the 2014 BiOp's assessment of depth overlap. According to the scientists at the National Marine Mammal Laboratory, a fundamental problem with the BiOp's approach is that a summary of Steller sea lion dive data does not offer any insight into which depths are successful foraging depths, *see* Ex. 38 at 7 (NMML Memo at 1030868)—i.e., which depths are significant for localized depletion and potential competition with the fisheries. The fundamental limitation upon dive depth data is that the frequency of dives to a particular depth do not necessarily correspond to the importance of those depths for foraging. This discrepancy between dive percentage and foraging success was born out by a study of Steller sea lions in Russia, where the most successful dives for prey accounted for a relatively small percentage of dives. *Id.* (NMML Memo at 1030868). *See also* Ex. 30 at 78 (DEIS at 3187937); Ex. 4 at 4 (Burkanov et al. 2010 at 6024671).

Accordingly, the National Marine Mammal Laboratory scientists cautioned that "[w]e are unaware of any precedent for the logic that if a sea lion or predator has not been recorded at a

specific depth of a fishing net in the past then there is no potential for 'overlap' or 'influence' of one on the other in the future," and that "[p]artitioning the water column into a 3-dimensional space with all users separate seems like quite a leap." Ex. 38 at 7 (NMML Memo at 1030868) NMFS's Steller Sea lion coordinator went one step further, declaring that "[t]his whole line of argument pretends we know things we don't know;" she "recommend[ed] ditching this whole argument, unless the nets are only catching fish well below where adult sea lions can dive." Ex. 44 at 9 (Rotterman Comments at 1009876). In its analysis and conclusions about depth overlap, the 2014 BiOp does not cite or discuss the relevant Russian study identified by the National Marine Mammal Laboratory scientists or address the scientists' criticisms of the way depth data are used. *See* Ex. 28 at 173-76 (2014 BiOp at 1027724-7).

A senior official at NMFS headquarters in Washington, DC also identified a significant scientific concern with the draft 2014 BiOp, inquiring whether the document could support its assertion that overall pollock biomass levels in the Aleutian Islands would not jeopardize the Western Population. He observed that "this year we've got a really substantial decrease in estimated pollock abundance – over 40%" and requested that the 2014 BiOp's authors supply him with their "reasoning [why] this decrease doesn't undermine our finding based on the 2003 study when there was higher abundance." Ex. 43 at 3 (Rauch Email Thread at 1026627). The BiOp's authors responded that they were unclear about the origin of the 40 percent figure, *see id*. at 1 (Rauch Email Thread at 1026625). The senior official subsequently directed the 2014 BiOp's authors to a page in their own draft noting that the "survey abundance" for pollock in the Aleutian Islands "was at a record low" in 2012, and the 2014 BiOp authors pledged to "take another look at this and clarify." *Id*. The final 2014 BiOp does not address the potential impact of low overall biomass in the Aleutian Islands on competitive interactions between Steller sea lions and the fisheries.

D. After the 2014 BiOp was issued, it was heavily criticized by a marine mammal expert.

Tim Ragen, former Steller Sea Lion Recovery Coordinator for NMFS Alaska Region and former Executive Director of the Marine Mammal Commission, also was critical of the 2014 BiOp in his public comments. He declared that the 2014 BiOp failed to provide a "sound, scientific basis" with which to conclude there would be no jeopardy or adverse modification. Ex. 42 at 14-15 (Ragen Comments at 1047332-33). In particular, Mr. Ragen noted several shortcomings with NMFS's size, depth, and special overlap conclusions, finding the spatial analysis to be the most unsatisfactory component. *Id*. at 1-5 (Ragen Comments at 1047319-23). He concluded that the size, depth, and

spatial overlap analyses, together, "fall well short of insuring that fishing in the central and western Aleutian Islands will not jeopardize the western distinct population segment or adversely modify its critical habitat." *Id*. at 5 (Ragen Comments at 1047323).

VIII. NMFS SELECTED ALTERNATIVE 5 IN THE FEIS AND ADOPTED A FINAL RULE AUTHORIZING MORE FISHING.

NMFS issued the FEIS on May 13, 2014. Exs. 26 & 27 (FEIS volumes 1 and 2); 79 Fed. Reg. 29,759 (May 23, 2014). Oceana and Greenpeace submitted comments on the FEIS, stating the FEIS was unlawful because it contained inadequate analysis and failed to reveal and discuss critical scientific information bearing directly upon its impact analysis. Ex. 40 (Oceana FEIS Comments). In the FEIS, NMFS stated the 2014 BiOp found that Alternative 5 was not likely to cause jeopardy or adverse modification. Ex. 26 at 30 (FEIS at 3160384). Based on that determination, NMFS selected Alternative 5 as its preferred alternative in the FEIS. *Id.*[5]

NMFS incorporated analysis from the 2014 BiOp—including its overlap analysis—to evaluate the environmental effects that Alternative 5 might have on Steller sea lions with regard to competition from the fisheries. *See id.* at 51 (FEIS at 3160445). The FEIS does not directly evaluate whether groundfish harvests under the action alternatives would have significant impacts on prey availability for Steller sea lions or whether the indirect effects of fishing under the action alternatives might have population level effects for Steller sea lions. *Id.* at 69 (FEIS at 3160926). Rather, the FEIS cites the analysis in the 2014 BiOp as demonstrating that the preferred alternative would not have population-level effects and thus would not cause jeopardy. *Id.* at 32, 53, 57 (FEIS at 3160404, 3160451, 3160455).

The FEIS discussed some of the controversial views and opinions surrounding the 2010 BiOp, including reviews of the 2010 BiOp and controversy about the effects of fishing on Steller sea lions evaluated in that opinion. *Id.* at 28, 40-41, 45, 65 (FEIS at 3160370, 3160431-32, 3160439, 3160713); Ex. 27 at 19 (FEIS at 3162257). In contrast, the FEIS did not disclose or discuss the reasonable opposing views of agency scientists and the significant concern that existed regarding the usefulness and scientific integrity of the 2014 BiOp's overlap analysis for evaluating the environmental impacts of more intensive fishing in the western and central Aleutian Islands and heightened competition with Steller sea lions for prey.

[5] For the FEIS, NMFS added an alternative (Alternative 6) that would not have allowed any directed fishing for pollock, Atka mackerel, or Pacific cod in the Aleutian Islands, Ex. 26 at 59-60 (FEIS at 3160582-83). Alternative 6 is an extreme approach that had not been suggested by any stakeholder.

On July 1, 2014, NMFS issued a proposed rule to implement Alternative 5 from the FEIS, the proposed action evaluated in the 2014 BiOp. 79 Fed. Reg. 37,486, 37,491-92 (July 1, 2014). Oceana and Greenpeace submitted timely comments on NMFS's proposed rule and the flaws of the 2014 BiOp upon which it was based. Ex. 39 (Oceana Proposed Rule Comments). The Final Rule was issued on November 25, 2014, adopting Alternative 5 with only minor changes. 79 Fed. Reg. at 70,291-92. At the same time, NMFS issued its record of decision (ROD) selecting Alternative 5, the preferred alternative, as its choice for action. Ex. 25 (ROD).

PLAINTIFFS' INTERESTS

Oceana and Greenpeace are conservation organizations, each with a mission to protect the environment, including marine ecosystems. They have worked for decades to improve the sustainability of the groundfish fishery in the North Pacific, including reducing nutritional stress and prey competition for endangered Steller sea lions. Members of Oceana and Greenpeace work, study, and recreate in and around the Aleutian Islands, and enjoy endangered Steller sea lions that are suffering harm from increased fishing activities through NMFS's most recent action. *See, e.g.,* Exs. 46-50 (Standing Declarations). Oceana's and Greenpeace's members are injured by NMFS's final actions because increased fishing threatens to harm and potentially eliminate Steller sea lions in the Aleutian Islands, compromising the aesthetic, recreational, and scientific interests that Oceana's and Greenpeace's members have in Steller sea lions and the Aleutian Islands' marine ecosystem. *See* Exs. 46-50 (Standing Declarations). Oceana and Greenpeace have standing to bring this action because they and their members will suffer injuries in fact, those injuries are traceable to Defendants' actions, and they would be redressed by a favorable decision of this Court setting aside Defendants' arbitrary and unlawful actions. *See Friends of the Earth v. Laidlaw Envtl. Servs.*, 528 U.S. 167, 180-84 (2000).

ARGUMENT

I. STANDARD OF REVIEW

Judicial review of Plaintiffs' claims is governed by the Administrative Procedure Act (APA), 5 U.S.C. § 706. *See Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 992 (9th Cir. 2004) (NEPA); *Turtle Island Restoration Network v. NMFS*, 340 F.3d 969, 973 (9th Cir. 2003) (ESA). Under the APA, courts are to set aside agency action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706.

Agency action fails to meet this standard when the agency has "relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). Stated another way, courts ask "whether the agency 'considered the relevant factors and articulated a rational connection between the facts found and the choice made.'" *Natural Res. Def. Council v. U.S. Dep't of the Interior*, 113 F.3d 1121, 1124 (9th Cir. 1997) (quoting *Resources, Ltd. v. Robertson*, 35 F.3d 1300, 1304 (9th Cir.1993)). In making this inquiry, the court "must engage in a careful, searching review to ensure that the agency has made a rational analysis and decision on the record before it." *Nat'l Wildlife Fed'n v. NMFS*, 524 F.3d 917, 927 (9th Cir. 2007).

"While courts must defer to an agency's reasonable interpretation of equivocal scientific evidence, such deference is not unlimited. The presumption of agency expertise may be rebutted if its decisions, even those based on scientific expertise, are not reasoned." *Greenpeace II*, 80 F. Supp. 2d at 1147. "Courts 'do not hear cases merely to rubber stamp agency actions . . . . The Service cannot rely on 'reminders that its scientific determinations are entitled to deference' in the absence of reasoned analysis . . . ." *Natural Res. Def. Council v. Daley*, 209 F.3d 747, 755 (D.C. Cir. 2000) (quoting *A.L. Pharma, Inc. v. Shalala*, 62 F.3d 1484, 1492 (D.C. Cir. 1995)).

Further, where an agency has adopted a new, novel scientific approach that departs from its own previous findings, such analysis is entitled to less deference. *See Nat'l Wildlife Fed'n*, 524 F.3d at 928 ("Because NMFS's approach is a novel one, completely at odds with NMFS's prior scientific approaches, it merits little deference."); *see also FCC v. Fox Television Stations*, 556 U.S. 502, 515 (2009) (stating that an agency must "provide a more detailed justification than what would suffice for a new policy created on a blank slate . . . [when] its new policy rests upon factual findings that contradict those which underlay its prior policy").

II. THE 2014 BIOP IS ARBITRARY AND CAPRICIOUS.

The 2014 BiOp constitutes an unscientific and arbitrary reversal of decades of analysis linking Steller sea lion population decline to competition with the commercial groundfish fisheries for prey resources. Lacking significant new information since 2010 that would disprove the fisheries' potential to jeopardize Steller sea lion survival and recovery and adversely modify their critical habitat, the authors of the 2014 BiOp deploy a new, overarching analytical framework to

assess the "overlap" between the fisheries and sea lions—and likewise manipulate limited Steller sea lion data in a new, novel way—all in an attempt to justify additional, intensive fishing.

This overlap analysis (alternately referred to as the "exposure" analysis) dominates the 2014 BiOp's assessment of the effects of increased fishing on Steller sea lions. *See* Ex. 28 at 143-212 (2014 BiOp at 1027694-763). It also is identified in the 2014 BiOp's "Synthesis and Conclusions" chapter as the foremost step in determining whether the fisheries are likely to jeopardize Steller sea lion survival or recovery or adversely modify their critical habitat. *Id*. at 246-49 (2014 BiOp at 1027797-800). The overlap analysis ultimately serves as the foundation of 2014 BiOp's conclusions. NMFS concedes that the fisheries, as designed, threaten localized depletion and potential adverse effects in Areas 543, 542, and 541, *id*. at 246-48 (2014 BiOp at 1027797-99), thereby forcing the agency to rely on the contrivance that there is too little overlap for Steller sea lions to be exposed to the consequences of the newly intensified fisheries, not even within critical habitat. *Id*. at 246-49 (2014 BiOp at 1017797-800); *see also supra* at 22-23.

Apparently in an attempt to justify further its outcome, the 2014 BiOp's conclusions chapter also offers a favorable description of the fisheries it authorizes, offering that they will be "small," or subject to "many measures . . . to temporally disperse fishing." *See, e.g.*, Ex. 28 at 247 (2014 BiOp at 1027798). These characterizations merely describe the fisheries and do not establish any independent basis to conclude that the fisheries are not likely to jeopardize Steller sea lions or adversely modify their critical habitat. In the end, because the 2014 BiOp's conclusion nevertheless concedes that—no matter how they are described—the fisheries threaten localized depletion in all three fishery management areas, the conclusion is dependent on the new overlap framework. *Id*. at 246-48 (2014 BiOp at 1027797-99).

The 2014 BiOp's change to a new analytical framework to assess overlap is unexplained and inconsistent with NMFS's obligation under the ESA, and the framework itself contradicts the evidence in the record, rendering it arbitrary and unlawful. However, even if NMFS's adoption of a new framework were not itself flawed, the 2014 BiOp analyzes available data on both the potential for spatial overlap and depth overlap in manner that was rejected by the agency's scientists as fundamentally flawed and unreliable—without response to those critical conclusions—rendering its overlap analyses arbitrary. Finally, the 2014 BiOp acknowledges a real likelihood that the fisheries will cause localized depletion that will adversely affect Steller sea lions yet still reaches a no jeopardy conclusion—a decision that departs from the ESA's key requirements that NMFS support such a decision by identifying a "tipping point" in order to "insure" that, even in the face of

uncertainty, the fisheries are not likely jeopardize endangered Steller sea lions or adversely modify the species' critical habitat.

All of these flaws reflect the fundamental failing of the 2014 BiOp: it consistently shirks NMFS's affirmative duty to prevent jeopardy or adverse modification, and consistently resolves uncertainty against endangered Steller sea lions rather than giving them the benefit of the doubt as the law requires. *See Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 130 at 32-33 & n.159. Effectively, NMFS has turned the protective standard of the ESA on its head. In the face of uncertainty, NMFS erects a higher bar requiring strong evidence of complete overlap between fisheries and sea lions before it will acknowledge a risk of jeopardy or adverse modification. This underlying framework, which upsets nearly 15 years of agency analysis, is inconsistent with the agency's obligation under the ESA. NMFS, at every turn, has resolved uncertainty against Steller sea lions and in favor of more fishing—in violation of the protective mandate of the ESA to "insure" against the likelihood of jeopardy or adverse modification.

A. The ESA imposes an affirmative obligation on NMFS to prevent jeopardy or adverse modification and requires the agency to give the benefit of the doubt to the species.

The ESA requires NMFS to "insure" that its actions are not likely to jeopardize the endangered Western Population of Steller sea lions or to adversely modify the animals' critical habitat. 16 U.S.C. § 1536(a)(2). In meeting this "rigorous" requirement, *Sierra Club v. Marsh*, 816 F.2d 1376, 1385 (9th Cir. 1987), the agency must base its decision on the best scientific and commercial data available. 16 U.S.C. § 1536(a)(2). As the Supreme Court stated in *Tennessee Valley Authority v. Hill*:

> One would be hard pressed to find a statutory provision whose terms were any plainer than those in § 7 of the Endangered Species Act. Its very words affirmatively command all federal agencies "to insure that actions authorized, funded or carried out by them do not jeopardize the continued existence" of an endangered species or "result in the destruction or modification of habitat of such species . . . ." . . . This language admits of no exception.

437 U.S. 153, 173 (1978) (emphasis in original).

An agency action "'jeopardize[s]' a species' existence if that agency action causes some deterioration in the species' pre-action condition." *Nat'l Wildlife Fed'n v. NMFS*, 524 F.3d at 930. The fact that a species may be struggling already does not excuse harming it further, because "even where baseline conditions already jeopardize a species, an agency may not take action that deepens

the jeopardy by causing additional harm." *Id*. In assessing whether agency action will cause jeopardy or adversely modify a species' critical habitat, a consulting agency "must analyze effects on recovery as well as effects on survival." *Id*. at 932; *see also Lubchenco*, 723 F.3d at 1054 ("We have held that recovery considerations are an important component of both the jeopardy and adverse habitat modification determinations.").

In applying section 7, "the burden [is] on the action agency" to demonstrate that its action likely will not jeopardize the species or adversely modify its critical habitat. H.R. Conf. Rep. No. 96-697, 1st Sess. 12, reprinted in 1979 U.S.C.C.A.N. 2572, 2576. As this Court recognized previously, "the ESA requires agencies to 'give the benefit of the doubt to the species,' not the proposed action," owing to the "agency's duty to affirmatively prevent jeopardy or adverse modification." *Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 130 at 32-33 & 32 n.159 (citing *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988)).

To substantiate a finding that a species' survival or recovery will not be jeopardized or that critical habitat will not be adversely modified, the Ninth Circuit requires that an agency perform a particular underlying analysis. More specifically: "it is . . . require[d] that the agency know roughly at what point survival and recovery will be placed at risk before it may conclude that no harm will result from 'significant' impairments to habitat that is already severely degraded." *Nat'l Wildlife Fed'n*, 524 F.3d at 936. This analysis must be performed to provide "some reasonable assurance that the agency action in question will not appreciably reduce the odds of success for future recovery planning, by tipping a listed species too far into danger." *Id*.

B. The 2014 BiOp's new position that overlap is required in all four dimensions as a prerequisite to finding competition between the fisheries and Steller sea lions is arbitrary and capricious and inconsistent with ESA requirements.

1. The 2014 BiOp fails to acknowledge or explain its new framework for assessing overlap and competition.

The 2014 BiOp purports to assess the degree of overlap between Steller sea lion foraging behavior and the prosecution of the groundfish fisheries—as previous biological opinions have done going back to at least 2000—but adopts a new framework without explanation or rational justification. The defining feature of this new overlap framework is the premise that NMFS will only conclude that an important Steller sea lion prey resource will be affected by the fisheries if overlap is demonstrated in all *four* of the analyzed dimensions: size of prey, place, time, and depth. *See* Ex. 28 at 212 (2014 BiOp at 1027763) (requiring "Size, Place, Time & Depth Overlap" as a prerequisite to

"Local and Temporal Depletion of Prey"); *see also* Ex. 38 at 8 (NMML Memo at 1030869) (describing the 2014 BiOp's "implicit assumption . . . that one dimension of partitioning ('some') is all that's necessary to conclude that there is no resource competition and that the likelihood of reduced prey resources is small.").

None of the prior consultations undertaken by NMFS since 2000 have set such a high bar, requiring overlap in all of the four dimensions of size of prey, place, time, and depth as a prerequisite to finding potential competition with the fisheries. For example, the 2010 BiOp assessed those same four dimensions—along with an added criteria for "compressed" (or high catch rate) fisheries—but only required overlap with respect to any three criteria to support a conclusion that Steller sea lion prey resources may be significantly affected. *See supra* at 13. The 2000 BiOp, which employed a seven question approach to assess overlap, likewise did not require overlap in all four dimensions of size, place, time, and depth. Per the 2000 BiOp, for any prey species found to occur at least ten percent of the time in Steller sea lion scat (a baseline requirement for the 2010 and 2014 BiOps as well), overlap in any *one* of the four dimensions of size, place, time, or depth would support a conclusion that the fishery potentially "contribute[s] to jeopardy or adverse modification," with the number of criteria met bearing on the degree of competition, not whether it occurs at all. Ex. 37 at 38-39 (2000 BiOp at 6013765-66). This precautionary approach reflected NMFS's conclusions in the 2000 BiOp that the level of competition may be "variable" and evaluation of overlap may be "confounded by a number of factors" and "difficult to judge using the available information." *Id*. at 15-16, 37 (2000 BiOp at 6013717-18, 6013764).

This change from requiring overlap in fewer than all four dimensions of size of prey, place, time, and depth to requiring overlap in *all* of the four dimensions has profound consequences for the outcome of the 2014 BiOp's overlap analysis and its ultimate conclusions. For each of the three fisheries analyzed in the 2014 BiOp, NMFS finds three areas of potential overlap and, therefore concern, but also identifies only one area of low (or non-) overlap, also called "partitioning." *See* Ex. 28 at 210 (2014 BiOp at 1027761) ("[T]he principal type of inferred partitioning [is] as follows for each fishery: Atka mackerel – place; Pacific cod – size; and pollock – depth."); Ex. 38 at 8 (NMML Memo at 1030869). Using its new framework, NMFS then concludes that such overlap in three of four dimensions means that Steller sea lions will *not* be exposed to competition or the effects of localized depletion. Under NMFS's previous biological opinions, however, the same degree of overlap would *compel* a conclusion that the fisheries expose Steller sea lions to localized depletion and diminished prey resources—at least to some significant degree. *Compare, e.g.*, Ex. 28 at 212

(2014 BiOp at 1027763) *with* Ex. 33 at 123 (2010 BiOp at 1054852, Fig. 4.24) *and* Ex. 37 at 38-40 (2000 BiOp at 6013765-66).

Despite the magnitude of the change between previous analyses and the 2014 BiOp's conceptual framework for overlap and competition, nowhere does the 2014 BiOp acknowledge that it has made such a change or explain why it has done so. To the contrary, NMFS suggested to the Council that it would follow the 2000 BiOp's seven question approach in the 2014 BiOp, *see* Ex. 29 at 6-7 (Analytical Approach Memo at 3087790-91), but the 2014 BiOp, inexplicably, has ignored how the 2000 BiOp assessed the answers to those questions. Moreover, the failure to acknowledge or justify this radical change is all the more significant in the face of the severely depressed fish stocks in the Aleutians Islands, *see supra* at 5-6, which NMFS has acknowledged makes "competition between sea lions and fisheries . . . more probable." *Id*. at 7 (Analytical Approach Memo at 3087791). The 2014 BiOp fails to address this problem, despite a pointed question by a senior NMFS official. *See supra* at 26.

As a result, the 2014 BiOp is arbitrary and capricious. While federal agencies have the discretion to change positions, "an agency changing its course must supply a reasoned analysis." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 57. Further, the required "reasoned analysis" must "indicat[e] that prior policies and standards are being deliberately changed, not casually ignored, and if an agency glosses over or swerves from prior precedents without discussion it may cross the line from the tolerably terse to the intolerably mute." *Nw. Envtl. Def. Ctr. v. Bonneville Power Admin.*, 477 F.3d 668, 687–88 (9th Cir.2007) (quotation omitted); *Fox*, 556 U.S. at 515. In this case, the 2014 BiOp is "intolerably mute" on a fundamental change.

2. The record shows that requiring overlap in all four dimensions is not a rational prerequisite to finding that the fisheries may reduce prey resources for Steller sea lions.

Although the 2014 BiOp's failure to acknowledge NMFS's changed position on the required degree of overlap, standing alone, renders the agency's most recent analysis arbitrary and unlawful, NMFS's change in position is also arbitrary because the new requirement that overlap must be observed in all four dimensions as a prerequisite to finding competition is contrary to the evidence in the record. More specifically, the record shows that even when overlap is observed in fewer than all four dimensions, the fisheries may, in fact, still reduce the prey resources available to Steller sea lions. Stated differently, the 2014 BiOp's framework requires an artificially high degree of proof that may rule out the existence of competition even in cases where competition actually is occurring.

NMFS's own findings in the record make plain that it is erroneous to conclude that competition for prey resources *exclusively* occurs when overlap is observed in all four dimensions of size of prey, place, time, and depth. For example, an agency paper that was written to inform the 2014 BiOp pointedly cautioned that, by itself, assessing the degree of overlap in those four dimensions "does *not* answer questions about the degree of competition or prey availability." Ex. 23 at 1 (Mabry Overlap Analysis at 1042618) (emphasis added).

The real possibility that the 2014 BiOp would dismiss the prospect of competition when it may or actually does occur is readily illustrated by considering a hypothetical fishery that exhibits overlap in only three of the four dimensions. Consider, for example, a fishery that appears to overlap with known Steller sea lion foraging activity with respect to time, depth, and size of prey but not place—i.e., the fishery is merely adjacent to a location where sea lions have been spotted feeding. Under the 2014 BiOp's analytical framework, the foregoing facts would lead NMFS to conclude that there is *no* risk that Steller sea lions will be exposed to competitive pressure from the adjacent fishery. But that conclusion could be erroneous because fish move. As NMFS explained in the 2010 BiOp, depending on the "[l]ocal movement rates" of the fish stock, it is possible that fishing at some distance away from the sea lions may nonetheless "'draw down' the biomass of fish in the no-trawl area." Ex. 33 at 74-75, 77 (2010 BiOp at 1054399-400, 1054402); *see also Greenpeace IV*, 237 F. Supp.2d at 1203 ("Fishing outside forage zones may cause localized depletions within the forage zones, which could then cause adverse modification of the 'high' importance areas of critical habitat and impact the Steller sea lions"). If the groundfish fisheries can reduce available prey resources even in the absence of direct spatial overlap with Steller sea lions, it is irrational to require—as the 2014 BiOp does without exception—a showing of spatial overlap as a prerequisite to concluding that the fisheries and sea lions are in competition.

Evidence in the record identifies at least three other circumstances under which a requirement for overlap in all four dimensions could obscure the existence of competition. First, as one NMFS scientist advised, if trawlers deplete the fish in a particular place, Steller sea lions subsequently are unlikely to be spotted in the same area, meaning that a lack of demonstrated spatial overlap actually could be a symptom of competition—not a reason to conclude that no competition exists. *See* Ex. 11 at 6 (Fritz Comments at 1002169) ("If fisheries prevent sea lions from using an area (by depleting it), there's no overlap."). Second, as another analyst explained, strictly requiring depth overlap "would make sense if the fish stayed in one place, but they may move [vertically] in the water column during the day, so the same aggregation could be accessed as different depth on the same day, feeding both

[Steller sea lions] and the fishery." Ex. 3 at 3 (Brown Comment at 1043143). Third, as NMFS acknowledged in its 2000 BiOp, because "scientists . . . can measure only what [fish size] was consumed, not necessarily what was preferred" by a sea lion, diet information may reflect the fisheries' removal of the largest fish, forcing sea lions to eat the smaller fish left behind, and not an actual lack of competition for fish of the same size. Ex. 37 at 15-16 (2000 BiOp at 6013717-18).

In light of these reasons why four-dimensional overlap need not be exhibited in order for Steller sea lions to suffer the consequences of localized depletion, scientists from the National Marine Mammal Laboratory criticized the 2014 BiOp's overlap approach as "dangerously simplistic" and ultimately "inadequate," Ex. 38 at 8-9 (NMML Memo at 1030869-70). Nowhere is this fundamental criticism addressed in the 2014 BiOp or the record, outside of a footnote stating that a review of depth overlap should account "for prey daily and seasonal vertical migrations." Ex. 28 at 212 (2014 BiOp at 1027763, Fig. 5-42).

Lacking any basis for the 2014 BiOp's requirement for overlap in all four possible dimensions, and contradicted by the available evidence, it cannot be said that NMFS has "considered the relevant factors and articulated a rational connection between the facts found and the choice made," as the law requires. *Natural Res. Def. Council*, 113 F.3d at 1124.

Further, in so much as the 2014 BiOp's overlap framework assumes away the possibility of localized depletion, competition, and harm to Steller sea lions where the potential clearly exists, the 2014 BiOp also violates the ESA's basis requirement that agencies "insure" against the likelihood of jeopardy or adverse modification, 16 U.S.C. § 1536(a)(2), and "'give the benefit of the doubt to the species,' not the proposed action." *Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 130 at 32-33 (quoting *Conner*, 848 F.2d at 1454).

C. The 2014 BiOp's assessments of spatial overlap and depth overlap are arbitrary and capricious.

In addition to adopting a new, unsubstantiated framework for assessing the overall potential for overlap and potential competition between Steller sea lions and the groundfish fisheries, the 2014 BiOp also makes novel and ultimately arbitrary assessments of both spatial overlap and depth overlap between Steller sea lions and the groundfish fisheries. The 2014 BiOp's spatial overlap analysis provides the foundation for NMFS's no-jeopardy finding for Atka mackerel, with the no-jeopardy conclusion for pollock premised the agency's analysis of depth overlap. Ex. 28 at 247 (2014 BiOp at 1027798). These two assessments are so fundamentally flawed that each, by itself,

renders the 2014 BiOp arbitrary and unlawful—apart from the arbitrariness of the 2014 BiOp's overarching overlap framework.

1. The 2014 BiOp's analysis of spatial overlap arbitrarily relies on data that NMFS acknowledges were inadequate.

The authors of the 2014 BiOp assessed spatial overlap by plotting GIS data points obtained from 45 telemetered sea lions and some opportunistic sea lion sightings on a map, alongside data showing historic fishing locations (for Atka mackerel and Pacific cod) or the new open areas (for pollock). *See supra* at 21. Narrowly focused on the specific locations visited by the 45 tagged sea lions, the 2014 BiOp authors conclude that Steller sea lions and the fisheries *only* compete in those specific spots where the 45 individuals (or limited opportunistic sightings) were observed in the same place as the fisheries. *See* Ex. 28 at 156-73, 209-11 (2014 BiOp at 1027707-24, 1027760-62). This approach does not account for the spatial overlap that may occur between the fisheries and the approximately 6,500 other Steller sea lions estimated to reside in the western and central Aleutian Islands that may forage in different locations than the 45 tagged individuals. *See* Ex. 28 at 42 (2014 BiOp at 1027593, Table 3-3) (aerial survey counts at trend sites).

When the 2014 BiOp authors made their spatial analysis available to NMFS scientists at the eleventh hour, numerous scientists advised them that there was too little data available to make inferences about overlap, and some scientists even alleged misuse of available data. *See e.g.*, Ex. 38 at 5-6 (NMML Memo at 1030866-67) (stating "telemetry data from such a limited data set should not be used in this form for this type of analysis" and that the use of sightings data "is not defensible and is a misuse of this type of data."); *see also supra* at 24-25. The bottom line recommendation of scientists at the National Marine Mammal Laboratory and as well as NMFS's Steller sea lion coordinator was that the BiOp's spatial analysis should be abandoned entirely because of the severity of its scientific flaws. *See, e.g.*, Ex. 38 at 1 (NMML Memo at 1030862) (stating spatial overlap analysis "is fundamentally flawed" and "does not provide an appropriate basis to evaluate spatial overlap between fisheries and Steller sea lions or to assess whether jeopardy or adverse modification to critical habitat may or may not be expected to occur"); Ex. 45 at 3 (Rotterman Memo at 1025776) ("The 'exposure analysis' is fundamentally flawed and needs to be redone.") (emphasis omitted); *see also* Ex. 7 at 1 (DeMaster Email at 1025808) (recommending that the telemetry data be assessed with a "resampling analysis" and removed from the BiOp if they are not robust to sample size.).

Despite this wave of criticism from the agency's foremost Steller sea lion experts, the final version of the 2014 BiOp still contains a lengthy discussion of the flawed spatial analysis and cites it

as support for the opinion's no jeopardy and no adverse modification conclusions. Ex. 28 at 156-73, 246-49 (2014 BiOp at 1027707-24, 1027797-800). The final version of the 2014 BiOp does admit some of the scientists' concerns are valid, but nevertheless relies on the flawed analysis in its conclusion. For example, the 2014 BiOp discusses "several limitations with the available data" which "complicate interpretation of the extent of expected spatial overlap," including the fact that "the sample size of telemetered animals is small and may not be representative of the whole population." Ex. 28 at 156 (2014 BiOp at 1027707). The 2014 BiOp's acknowledgement of "limitations" and "complications," however, is not responsive to the scientists' concerns, who indicated that the analysis was, on the whole, "fundamentally flawed and need[ed] to be redone." Likewise, the 2014 BiOp cautions that "[i]f an area has few or no sea lion locations or sightings, we cannot infer that the area is not used by sea lions." *Id*. at 156 (2014 BiOp at 1027707) Nonetheless, the opinion does, in fact, make such inferences and relies on conclusions about the degree of spatial and "place" overlap—including premising the agency's no-jeopardy finding for Atka mackerel on the lack of such overlap. *See id*. at 158-63, 209-10, 247 (2014 BiOp at 1027709-14, 1027760-61, 1027798).

In ignoring its own experts' scientific advice and relying on the spatial overlap analysis despite its fundamental flaws, the 2014 BiOp arbitrarily "runs counter to the evidence before the agency," *Motor Vehicle Mfrs. Ass'n.*, 463 U.S. at 43, and fails to reflect a "reasoned" decision. *Greenpeace II*, 80 F. Supp. 2d at 1147; *see also Greenpeace IV*, 237 F. Supp. 2d at 1199 (finding "that the 2001 BiOp's no jeopardy and no adverse modification conclusions are arbitrary and capricious because they rely on [an analytical approach] which is not rationally connected to the data presented").

The 2014 BiOp's inclusion of the flawed spatial analysis also runs afoul of the fundamental requirement that an agency "must support its conclusions . . . with studies that the agency, in its expertise, deems reliable." *The Lands Council v. McNair*, 537 F.3d 981, 994 (9th Cir. 2008), *overruled on other grounds by Winter v. Natural Res. Def. Council*, 555 U.S. 7, 20 (2008). Here, NMFS scientists plainly advised the authors of the 2014 BiOp that the spatial overlap analysis was not reliable. The lead author of the 2014 BiOp did not contest this view, stating she "agree[s] the sample sizes are deficient" and admitting that "the sample size is too small to make inferences for the population." Ex. 7 at 2 (Gerke Email at 1025809). In the face of such a consensus that the data used to assess spatial overlap are not reliable, NMFS's decisions to include the analysis in the 2014 BiOp and to rely upon it renders the 2014 BiOp arbitrary. *See Lands Council*, 537 F.3d at 994. The 2014

BiOp's authors' insistence on pursuing such an admittedly unreliable approach is particularly troublesome in the current context—an ESA consultation—where the agency possesses a "duty to affirmatively prevent jeopardy or adverse modification." *Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 130 at 32-33 & n.159 (citation omitted).

2. The 2014 BiOp's analysis of depth overlap arbitrarily relies on data that NMFS scientists advised were inadequate.

Like the 2014 BiOp's analysis of spatial overlap, NMFS's assessment of the potential overlap between Steller sea lion dive depth and fishing depth also is unscientific and arbitrary.

Utilizing some of the same telemetry data from the 45 tagged animals in the western and central Aleutian Islands along with other data on recorded dives, the 2014 BiOp compares the measured depth of Steller sea lion dives and the frequency of such dives against the known depths of deployed fishing gear. Ex. 28 at 173-86 (2014 BiOp at 1027724-37). In those instances where Steller sea lion dive depths were not found to match frequently with the depth of fishing gear, NMFS concluded that some "partitioning" exists. *See, e.g.*, *id*. at 179, 184 (2014 BiOp at 1027730, 1027735).

After it was belatedly made available to them, NMFS scientists sharply criticized the 2014 BiOp's depth analysis. They noted that it seemed "selective to few studies," and one in particular, and that it "ignor[ed] an inherent bias" that makes it difficult to assess competition at depth, namely, "that it is unknown which depths are successful foraging depths" for Steller sea lions. Ex. 38 at 7 (NMML Memo at 1030868). As one scientist observed: "To simplistically paint [Steller sea lions] into a small box by inferring little depth overlap by looking at the [percentage] of dives at depth is ridiculous . . . . It would be like saying that since you spend only [five percent] of your 'awake' time in the grocery store, restaurant, kitchen . . . it[']s obviously 1/7 as important to your energy needs as the 35 [percent] of your awake hours spent at your desk at work." Ex. 10 at 2 (Fritz Email at 1032260).

Based on this and other criticisms, the scientists at the National Marine Mammal Laboratory concluded that "[t]he overall theme that if there is no existing data to say that prey and sea lions have ever been recorded at the same depth [then] it won't happen isn't convincing." Ex. 38 at 7 (NMML Memo at 1030868). They described the depth analysis as "quite a leap," *id*., and were joined in their criticism by NMFS's Steller sea lion coordinator, who recommended "ditching this whole argument, unless the nets are only catching fish well below where adult sea lions can dive." Ex. 44 at 9 (Rotterman Comments at 1009876).

Despite the advice of NMFS's scientists, which is not mentioned or otherwise accounted for in the 2014 BiOp, the final opinion repeatedly cites findings of depth partitioning to conclude that the effects of possible localized depletion would be mitigated. *See*, *e.g.*, Ex. 28 at 228 (2014 BiOp at 1027779) (stating that "available depth data . . . indicate some partitioning between sea lion dive depth and Atka mackerel fishing depth" that would mean the "sea lions and the fishery would not be competing for the same localized population"); *id*. at 232 (2014 BiOp at 1027783) (noting that "[t]he observed partitioning of depth likely mitigates any localized depletion"). In fact, the depth analysis is relied upon particularly heavily in the 2014 BiOp's conclusion as a reason why the new pollock fishery will not cause jeopardy or adverse modification, despite NMFS's concession that it expects the fishery "to operate in a temporally and spatially compressed manner," *id.* at 249 (2014 BiOp at 1027800), within critical habitat and that risks localized depletion. *Id*. at 246-50 (2014 BiOp at 1027797-801).

In defying the recommendations of its experts on the assessment of depth overlap, the conclusions of the 2014 BiOp arbitrarily run "counter to the evidence before the agency," *Motor Vehicle Mfrs. Ass'n.*, 463 U.S. at 43, and fail to reflect a "reasoned" decision. *Greenpeace II*, 80 F. Supp.2d at 1147. By assuming away the possibility of competition based on a leap of logic and considerable unknowns, the 2014 BiOp's conclusion also unlawfully fails to "insure" that the fisheries are not likely to cause jeopardy and adverse modification, 16 U.S.C. § 1536(a)(2), and likewise fails "to 'give the benefit of the doubt to the species,'" as required. *Conner*, 848 F.2d at 1454.

D. The 2014 BiOp arbitrarily fails to identify a tipping point and does not give endangered Steller sea lions the benefit of the doubt.

Even if the 2014 BiOp's overlap analysis was not irrational and unsupported by the record, that analysis is insufficient to meet NMFS's specific obligations under the ESA, which requires that a no jeopardy finding be substantiated by identification of a "tipping point" against which to measure the action and that the endangered species be given the benefit of the doubt. Here, the 2014 BiOp can only roughly say that there will be "some" partitioning between Steller sea foraging and the fisheries, without quantifying or otherwise explaining how much partitioning is adequate to insure against the likelihood of jeopardy or adverse modification.

As this Court recognized previously, "[c]ourts have rejected agency analyses where they concluded that there was no jeopardy or adverse modification without determining the 'tipping point.'" *Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 130 at 26 n. 132 (citations omitted). As

the Ninth Circuit explained: "[i]t is only logical to require that the agency know roughly at what point survival and recovery will be placed at risk before it may conclude that no harm will result from 'significant' impairments to habitat that is already severely degraded." *Nat'l Wildlife Fed'n*, 524 F.3d at 936. This analysis must be performed to provide "some reasonable assurance that the agency action in question will not appreciably reduce the odds of success for future recovery planning, by tipping a listed species too far into danger." *Id.*; *see also Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 527 (9th Cir. 2010) (invalidating biological opinion because "[t]he Service has not determined when the tipping point precluding recovery of the Icicle Creek bull trout population is likely to be reached, nor, necessarily, whether it will be reached").

The 2014 BiOp fails to meet this requirement. Nowhere in the opinion does NMFS discuss a tipping point for survival or recovery or adverse modification of critical habitat in the western and central Aleutian Islands, or anything comparable, that would justify the agency's no jeopardy decision. Rather, in the 2014 BiOp's ultimate conclusion, NMFS can only say "some partitioning may occur between the fisheries and Steller sea lions targeting Atka mackerel, Pacific cod, and pollock and that some amount of overlap is also expected." Ex. 28 at 246 (2014 BiOp at 1027797). This finding does not quantify or otherwise explain how much partitioning is enough to avoid jeopardy and adverse modification. The details of the overlap analysis in the "effects of the action" chapter are no more helpful, written as they are in general, relativistic terms that do not identify a clear tipping point. *See, e.g.*, *id.* at 209 (2014 BiOp at 1027760) ("For the proposed Atka mackerel fisheries we found a qualitatively high degree of time (summer and winter) and size overlap"); *id*. at 232 (2014 Biop at 1027783) ("NMFS expects a high amount of overlap in the size of pollock taken by the fishery. . ."); *id*. at 229 (2014 BiOp at 1027780) ("The available data suggest some partitioning in the size of Pacific cod taken by the fishery . . .").

Scientists within the Alaska Fisheries Science Center questioned the 2014 BiOp's vague approach, asking "what is the criteria for 'minimal', 'little', 'relatively low', 'moderate' etc. overlap" and "[i]f 'overlap' is being used as a definition of potential deleterious effects then is 'some' an acceptable amount?" Ex. 22 (Logerwell Memo at 1003453); Ex. 38 at 8 (NMML Memo at 1030869). NMFS might have developed more definitive criteria to assess overlap—and, in turn a tipping point—but declined to do so. In fact, the 2014 BiOp's authors were pressed by one of NMFS's senior scientists to establish a quantitative threshold for overlap; he advised that "[s]ome sort of criteria need to be developed as to when the overlap is considered large enough to have the potential for competition that could lead to [jeopardy and adverse modification]." Ex. 6 at 2

(DeMaster Comments at 1010212). The NMFS official who supervised drafting of the 2014 BiOp dismissed the idea, stating without explanation "we can't go there." Ex. 19 (Kurland Email at 1025881).

It is evident that NMFS issued its no jeopardy opinion for the western and central Aleutian Islands without ever analyzing "roughly at what point survival and recovery will be placed at risk" as required by *National Wildlife Federation*. 524 F.3d at 936. Significantly, the 2014 BiOp acknowledges that the new and expanded fisheries in the western and central Aleutian Islands may "adversely affect Steller sea lions" to some degree. *See, e.g.*, Ex. 28 at 228, 234, 248 (2014 BiOp at 1027779, 1027785, 1027799); *see also* Ex. 26 at 68 (FEIS at 3160780) ("Our logic . . . 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 Steller sea lions."). Nonetheless, the 2014 BiOp lacks any "reasonable assurance" that the anticipated adverse effects of rolling back the protection measures adopted in 2011 "will not appreciably reduce the odds of success for future recovery planning, by tipping a listed species too far into danger." *Nat'l Wildlife Fed'n*, 524 F.3d at 936. The 2014 BiOp therefore fails to "insure" that the fisheries are not likely to jeopardize Steller Sea lions or adversely modify the species' critical habitat, as required by the ESA. 16 U.S.C. § 1536(a)(2); *see also Greenpeace I*, 55 F. Supp. 2d at 1265 ("The Court recognizes the difficult line-drawing issues presented in deciding, for instance, exactly what level of catch inside critical habitat would result in jeopardy or adverse modification. Nevertheless, NMFS must comply with the mandates of the Endangered Species Act, including asking the required questions.").

III. THE FEIS UNLAWFULLY FAILS TO DISCLOSE SCIENTIFIC DISSENT THAT WAS CENTRAL TO THE UNDERLYING IMPACT ANALYSIS.

NEPA requires agencies to include in the body of an EIS a discussion of any responsible opposing views that highlight significant uncertainties or environmental risks. 40 C.F.R. § 1502.9(b). NMFS failed to meet this obligation. In the FEIS, NMFS did not address, discuss, or even disclose expert opinions that were directly relevant to its analysis and should have substantially informed its evaluation of environmental effects. NEPA requires NMFS to evaluate the potential impacts that the alternatives considered would have on the environment, including a discussion of the impact that a huge increase in fishing would have on Steller sea lion populations as a result of competition, localized depletion, and reduced prey availability. These effects are evaluated in the 2014 BiOp and largely incorporated into the FEIS. Yet, NMFS failed to inform the public about the responsible scientific analysis from its own experts that showed its new overlap analysis was

improper and understated the potential for population-level impacts to sea lions. The FEIS thus did not take a "hard look" at environmental impacts nor comply with NEPA requirements, and the decision premised on that EIS must be vacated.

A. NEPA requires full disclosure of and response to opposing scientific analysis.

NEPA requires federal agencies to prepare an EIS for any major federal action that may significantly affect the quality of the human environment. 42 U.S.C. § 4332(2)(C). Through that process, NEPA seeks to make certain that agencies "will have available, and will carefully consider, detailed information concerning significant environmental impacts, and that the relevant information will be made available to the larger [public] audience." *Lands Council*, 537 F.3d at 1000 (quoting *Robertson v. Methow Valley*, 490 U.S. 332, 349 (1989)). By preparing an EIS that in "form, content and preparation foster[s] both informed decision-making and informed public participation," NEPA obligates federal agencies to take a "hard look" at environmental impacts. *Native Ecosystems Council v. United States*, 418 F.3d 953, 960 (9th Cir. 2005). This "hard look" must be taken "objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made." *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000).

A key part of this obligation to take a hard look at impacts is the obligation to disclose and respond to in an EIS any responsible opposing views. The Council on Environmental Quality, an agency within the Executive Office of the President, has promulgated regulations implementing NEPA that are "binding on all Federal agencies." 40 C.F.R. § 1500.3. These regulations require that an EIS "shall discuss at appropriate points . . . any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised." 40 C.F.R. § 1502.9(b); *see also Lands Council*, 537 F.3d at 1001 ("[An agency] must acknowledge and respond to comments by outside parties that raise significant scientific uncertainties and reasonably support that such uncertainties exist."). It is not sufficient for the agency to make general statements that opposing views exist nor to address those views solely in the record. Disclosure and response to contrary scientific conclusions must be in the EIS itself. *Ctr. for Biol. Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1168-69 (9th Cir. 2003).

This obligation, to disclose all responsible opposing views, supports one of the fundamental, underlying purposes of NEPA—to guarantee that the public and the agency are informed of scientific uncertainty surrounding a potential project. 40 C.F.R. §§ 1500.1(b); 1502.1; 1502.9(a). It ensures

that an agency makes informed decisions, rather than acting on incomplete information. *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 371 (1989); *Methow Valley*, 490 U.S. at 351; *see also* 40 C.F.R. § 1500.1(b). It also ensures that an EIS will be scientifically robust. 40 C.F.R. § 1502.24 (an agency must "insure the professional integrity, including scientific integrity, of the discussions and analyses" included in its EIS); *see also Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1998), *overruled in part on other grounds by Lands Council*, 537 F.3d at 997 (NEPA requires agencies to use high quality information and accurate scientific analysis). Disclosing and responding to contrary scientific opinions allows the public to know that the agency has considered all environmental concerns before making its decision. *See Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983). All in all, the "disclosure requirement obligates the agency to make available to the public high quality information, including accurate scientific analysis, expert agency comments and public scrutiny, before decisions are made and actions are taken." *Ctr. for Biol. Diversity*, 349 F.3d at 1167 (citing 40 C.F.R. § 1500.1(b)).

In interpreting these NEPA obligations, courts have held that an agency must disclose and respond to any conflicting opinions held by well-respected scientists, particularly those that highlight potential environmental risks or scientific uncertainty, including opinions presented by an agency's own scientists. For example, in *W. Watersheds v. Kraayenbrink*, 632 F.3d 472 (9th Cir. 2010), the Ninth Circuit evaluated an EIS prepared to evaluate regulations governing the Bureau of Land Management's (BLM's) oversight of livestock grazing on public lands. During the drafting process, BLM gathered interdisciplinary teams of its own experts to review the regulations. BLM teams prepared reports identifying significant concerns with eliminating fundamental standards and requirements. *Id*. at 488. Other agencies and the public expressed similar concerns. *Id*. BLM finalized the EIS, acknowledging that some comments "expressed concern" with eliminating requirements, but concluded that the requirements were duplicative and redundant. *Id*. at 489. The Ninth Circuit found the EIS to be arbitrary, citing in part 40 C.F.R. § 1502.9(b), because "the BLM gave short shrift to a deluge of concerns from its own experts, FWS, the EPA, and state agencies; the BLM neither responded to their considered comments 'objectively and in good faith' nor made responsive changes to the proposed regulations . . . and the BLM was required to 'assess and consider . . . both individually and collectively' the public comments received during the NEPA process and to respond to such in its [FEIS]." *Id*. at 493. *See also Pac. Coast Fed'n Of Fishermen's Ass'ns v. NMFS*, 482 F. Supp. 2d 1248, 1253-55 (W.D. Wash. 2007) (holding an EIS violated NEPA obligations for failing to adequately disclose and discuss dissenting scientific opinions from the

agency's own experts); *Seattle Audubon Soc'y v. Moseley*, 798 F. Supp. 1473, 1482-83 (W.D. Wash. 1992) (finding an EIS violated NEPA for failing to provide a reasoned analysis and response to criticism from its own experts).

B. The FEIS fails to disclose or respond to the expert reviews that exposed fundamental flaws its analysis.

NMFS violated its NEPA obligations in the FEIS. The FEIS fails to disclose, discuss, or respond to important scientific opinions about the overlap analysis, which is central to the evaluation of impacts contained in the FEIS. In order to take a "hard look" at the environmental impacts in the FEIS, NMFS needed to evaluate how each of the alternatives differentially affected the Steller sea lion population. One of the most critical pieces of that evaluation is the impact that each alternative would potentially have on prey availability for populations of sea lions. *See supra* at 16, 27.

The FEIS, by itself, does not evaluate the magnitude of the impact each alternative would have on prey availability for Steller sea lions; instead, it simply assesses how each alternative compared to the other. The FEIS concludes that Alternatives 2-6 all resulted in potential effects on prey availability for Steller sea lions, and compared each alternative to the others in terms of the amount of fishing allowed. *See* Ex. 26 at 70 (FEIS at 3160927, Table 5-98). The FEIS does not include any discussion or conclusion about whether those prey availability effects would have implications for Steller sea lion populations or nor does it compare how those impacts might be different among the alternatives. *See id*. at 69 (FEIS at 3160926). In fact, the analysis in the FEIS does not include any information regarding the population-level environmental effects based on prey availability for any of the action alternatives, including the preferred alternative. Instead, the FEIS relies on the 2014 BiOp, and its "population-level analysis of the preferred alternative's effects on Steller sea lions and their designated critical habitat." Ex. 26 at 53 (FEIS at 3160451). The 2014 BiOp is the only place in which NMFS conducted an evaluation of those impacts, and then, only in the context of the preferred alternative, Alternative 5.

The overlap analysis is central to the 2014 BiOp's evaluation of population-level impacts resulting from reduced prey availability and localized depletion. Thus, NMFS relies on the overlap analysis in the 2014 BiOp in order to evaluate the impacts of alternatives and select its preferred alternative. *See, e.g.*, Ex. 28 at 57-60 (FEIS at 3160455-56); *see also id.* at 51, 32, 53 (FEIS at 3160445, 3160404, 3160451). Yet, NMFS's own scientists brought forward scientific evidence that the overlap analysis in the 2014 BiOp was not sufficient to conclude that competition would not occur, that the overlap analysis could not withstand scientific scrutiny, and that the analysis could not

support a no jeopardy or no adverse modification finding. *See supra* at 23-26. NMFS fails to mention any of these reasonable and significant scientific opinions in the body of the FEIS, as required under NEPA. Although NMFS discusses some controversy and uncertainty surrounding the findings of the 2010 BiOp in the FEIS, NMFS does not respond to or even disclose the scientific concerns surrounding the 2014 BiOp. *See supra* at 27.

By relying on the 2014 BiOp to inform the environmental impacts of the proposed action on Steller sea lions but failing to disclose relevant and vital scientific information surrounding its central overlap analysis, NMFS failed to meet its NEPA obligations to address and respond to responsible, opposing scientific opinions. 40 C.F.R. § 1502.9(b); *see also W. Watersheds*, 632 F.3d at 488-93. As a result, NMFS cannot guarantee the public and the agency were fully informed about all environmental concerns surrounding the Final Rule, as required by NEPA. If NMFS had fully considered the significant contrary views in the FEIS, it may have selected a different alternative that was more precautionary, given the uncertainty and flaws with the underlying overlap analysis. In addition, without disclosing expert views that were central to the environmental impact analysis, NMFS failed to inform the public that it had considered all environmental concerns during its decision-making process, *see* 40 C.F.R. § 1500.1, failed to ensure the scientific integrity of the FEIS, and failed to take a "hard look" at the issues. *See* 40 C.F.R. § 1502.24; *see also Natural Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d 797, 813 (9th Cir. 2005) (holding EIS unlawful that contained misleading information, violating NEPA's requirement to "present complete and accurate information to decision makers and to the public"). The FEIS is thus arbitrary and unlawful, and the decision premised on that FEIS must be vacated.

IV. THE COURT SHOULD VACATE THE 2014 BIOP AND THE FINAL RULE.

As described above, the 2014 BiOp and the FEIS are arbitrary, capricious, and unlawful, in violation of the ESA, NEPA, and the APA. NMFS issued the Final Rule in reliance on an arbitrary biological opinion and on an invalid EIS. Accordingly, the Court should vacate the 2014 BiOp and the Final Rule, and reinstate the rule that was previously in place, the Interim Final Rule. Vacatur should occur in a timeframe that would ensure the Interim Final Rule is reinstated before the start of the 2016 fishing season.

The normal remedy under the APA for an arbitrary or unlawful agency action is to vacate the agency action. Section 706 of the APA provides the remedy for these violations, and it directs that a reviewing court "shall . . . set aside" agency action that is arbitrary or not in accordance with law. 5

U.S.C. § 706(2)(A); *see also Cal. Wilderness Coal. v. U.S. Dep't of Energy*, 631 F.3d 1072, 1095-96, 1106 (9th Cir. 2011); *Alsea Valley Alliance v. Dep't of Commerce*, 358 F.3d 1181, 1185–86 (9th Cir. 2004) ("[V]acatur of an unlawful agency rule normally accompanies a remand."); *Alaska Oil and Gas Ass'n v. Pritzker*, 2014 WL 3726121, at *16 (D. Alaska July 25, 2014). Courts will typically vacate agency action for violations of the ESA. *Defenders of Wildlife v. EPA*, 420 F.3d 946, 978 (9th Cir. 2005), *rev'd on other grounds, Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644 (2007). Further, when a court vacates a final agency rule, the usual procedure is for the court to reinstate the rule that was previously in force. *Paulsen v. Daniels*, 413 F.3d 999, 1008 (9th Cir. 2005) ("The effect of invalidating an agency rule is to reinstate the rule previously in force."); *see also Cal. Ex rel. Lockyer v. U.S. Dep't of Agric.*, 575 F.3d 999, 1020 (9th Cir. 2009).

Although courts may on some occasions consider equitable factors in determining whether to vacate a rule, this framework is modified for violations of the ESA. With regard to endangered species, "Congress ha[s] explicitly foreclosed the exercise of traditional equitable discretion" through its command that agencies must insure that their actions do not result in jeopardy to listed species. *Sierra Club*, 816 F.2d at 1383-84; *Thomas v. Peterson*, 753 F.2d 754, 764 (9th Cir. 1985); *see also TVA*, 437 U.S. at 193-94 ("Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities, thereby adopting a policy which it described as 'institutionalized caution.'"). In some limited circumstances, courts will decline to vacate agency action in order to remedy an ESA violation if vacatur would remove beneficial measures that are in place to protect listed species. *See, e.g., Idaho Farm Bureau Fed'n v. Babbitt*, 58 F.3d 1392, 1405-06 (9th Cir. 1995); *Nat'l Wildlife Fed'n v. NMFS*, 839 F. Supp. 2d 1117, 1129 (D. Or. 2011). Those circumstances are not present in this case – the Final Rule threatens to harm, not benefit, endangered Steller sea lions. Vacatur of the 2014 BiOp and Final Rule will allow NMFS to comply with the ESA's mandate to insure that Steller sea lion protection measures are not likely to jeopardize the species or adversely modify its critical habitat, 16 U.S.C. § 1536(a)(2).

The jeopardy analysis contained in the 2010 BiOp is still valid, as NMFS has recognized, and supports the fishing restrictions contained in the Interim Final Rule. This Court and the Ninth Circuit have both upheld the analysis and conclusions contained in the 2010 BiOp. The Court should, therefore, reinstate the Interim Final Rule. Plaintiffs recognize that with reinstatement of the previous Interim Final Rule, NMFS would still be required to ensure compliance with this Court's previous order to correct NEPA violations associated with the adoption of that Rule. As this Court

recognized in its previous order, however, the NEPA violations accompanying the Interim Final Rule did not undermine NMFS's ESA determinations in the 2010 BiOp or the requirements of the Rule. *Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 130 at 54. Just as then, the Interim Final Rule should remain in place while NMFS determines how best to comply with this Court's order to correct NEPA violations. *See Lubchenco*, No. 3:10-cv-00271-TMB, Order, Doc. 142 at 9-12 (filed March 5, 2012). The higher levels of fishing that are currently occurring in sensitive critical habitat in 2015 are the kinds of fishing the agency determined in 2010 could have impacts with implications for the entire Steller sea lion population. As a result, it is imperative that the Court eliminate these potential impacts as soon as possible. In these circumstances, it is appropriate to vacate the 2014 BiOp and the Final Rule, and to reinstate the Interim Final Rule in time to ensure proper fishing restrictions are in place before the start of the 2016 fishing season.

CONCLUSION

The agency actions challenged in this action are arbitrary and capricious, in violation of both the ESA's requirement that NMFS "insure" that its actions will not jeopardize endangered Steller sea lions or adversely modify their critical habitat and NEPA's requirement that NMFS take a "hard look" at the consequences of its actions. Plaintiffs therefore respectfully request that the Court grant Plaintiffs' motion for summary judgment and vacate the 2014 BiOp and Final Rule.

Respectfully submitted this 14th day of April, 2015.

s/ Colin O'Brien
Colin C. O'Brien (AK Bar #1110701)
EARTHJUSTICE
441 W. 5th Avenue, Suite 301
Anchorage, AK 99501
T: 907.792.7103
F: 907.277.1390
E: cobrien@earthjustice.org

Brettny E. Hardy (AK Bar #1306043)
Eric P. Jorgensen (AK Bar #8904010)
EARTHJUSTICE
325 Fourth Street
Juneau, AK 99801
T: 907.586.2751
F: 907.463.5891
E: bhardy@earthjustice.org
E: ejorgensen@earthjustice.org

Attorneys for Plaintiffs Oceana, Inc. and Greenpeace, Inc.

CERTIFICATE OF SERVICE

I hereby certify that on April 14, 2015, a copy of foregoing PLAINTIFFS' PRINCIPAL BRIEF ON SUMMARY JUDGMENT PURSUANT TO FED. R. CIV. P. 56 AND D.AK. L.R. 16.3 was served electronically on Daniel J. Pollak, Tanya C. Nesbitt, Linda R. Larson, and Svend A. Brandt-Erichsen.

s/ Colin O'Brien
Colin O'Brien

TABLE OF EXHIBITS

Ex. No.	Description	AR Bates Nos.
1	Balsiger, Jim, National Marine Fisheries Service (NMFS), Alaska Region (AKR), Memorandum Re: Biological Opinion on Steller Sea Lions and the Alaska Groundfish Fisheries (Apr. 1, 2014) (Balsiger Memo)	1026836 - 1026837
2	Bengtson, John, Alaska Fisheries Science Center (AFSC) / National Marine Mammal Laboratory (NMML), Email to Douglas DeMaster, AFSC, Re: File - AEP memo review ai gf s7 draft022814 JLB.docx (March 6, 2014) (Bengtson Email)	1028191
3	Brown, Melanie, NMFS Sustainable Fisheries Division (SFD), Comments on Draft Analytical Approach for 2014 Groundfish BiOp Compiled by the National Marine Fisheries Service Alaska Region Protected Resources Division (May 2013) (excerpts) (Brown Comments)	1043138 - 1043151
4	Burkanov, Vladimir, *et al.*, Foraging ecology of Steller sea lions and northern fur seals in far eastern Russia (2010) (excerpts) (Burkanov et al. 2010)	6024642 - 6024688
5	Conners, Elizabeth, AFSC / Resource Ecology and Fisheries Management (REFM), *et al.*, SSL Groundfish Prey Fields in the Aleutian Islands, White Paper compiled for the NOAA Fisheries Alaska Regional Office (Oct. 2013) (excerpts) (Conners et al. 2013)	6011392 – 6011443
6	DeMaster, Douglas, AFSC, Comments on March 4, 2014 Internal Draft Aleutian Islands Groundfish Fishery Biological Opinion (March 8, 2014) (excerpts) (DeMaster Comments)	1009993 - 1010312
7	DeMaster, Douglas, AFSC, Email Exchange with Brandee Gerke, SFD, Re: review of Biop (March 10, 2014) (DeMaster Email / Gerke Email)	1025808 - 1025810
8	DeMaster, Douglas, AFSC, Email to Lowell Fritz, AFSC/NMML, Re: Council's alternative (Oct. 22, 2013) (DeMaster Email)	1030321 - 1030322
9	Fritz, Lowell, AFSC/NMML, Email to Tom Gelatt, AFSC/NMML, and Brian Fadely, AFSC/NMML, Re: SSL AI Groundfish Biop 2 (March 6, 2014) (Fritz Email)	1032250

Ex. No.	Description	AR Bates Nos.
10	Fritz, Lowell, AFSC/NMML, Email to Tom Gelatt, AFSC/NMML, *et al*., Re: SSL AI Groundfish BiOp (March 5, 2014) (Fritz Email)	1032259 - 1032262
11	Fritz, Lowell, AFSC/NMML, Comments on Draft Analytical Approach for 2014 Groundfish Biop (undated) (Fritz Comments)	1002164 - 1002176
12	Gelatt, Tom, AFSC/NMML, Email to Brian Fadely, AFSC/NMML, and Lowell Fritz, AFSC/NMML, Re: Fwd: Draft Groundfish Biop Review - Final Chapter update (March 08, 2014) (Gelatt Email)	1016885
13	Gelatt, Tom, AFSC/NMML, Email to Lowell Fritz, AFSC/NMML, and Brian Fadely, AFSC/NMML, Re: SSL AI Groundfish Biop 2 (March 5, 2014) (Gelatt Email)	1016591 - 1016592
14	Gerke, Brandee, SFD, Email to Douglas DeMaster, AFSC, Re: Endangered Species Act Section 7 Consultation.dpd edits.March 8 2014.docx (March 12, 2014) (Gerke Email)	1025869
15	Gerke, Brandee, SFD, Email to Jonathan Pollard, Office of General Counsel, Re: Re: Draft Groundfish Biop Review - Final Chapter update (March 7, 2014) (Gerke Email)	1017104 - 1017105
16	Gerke, Brandee, SFD, Email to John Bengtson, AFSC/NMML, *et al.*, Re: Draft 2014 Groundfish Biological Opinion (Feb. 28, 2014) (Gerke Email)	1025286
17	Gerke, Brandee, SFD, Email to Jon Kurland, NMFS Protected Resources Division (PRD), Re: draft early evaluation of PPA for SSL protection measures EIS (May 10, 2013) (Gerke Email)	1035363
18	Himes Boor, Gina, and Robert Small, *Steller sea lion spatial-use patterns derived from a Bayesian model of opportunistic observations*, Marine Mammal Science 28(4): E375–E403 (Oct. 2012) (excerpts) (Himes Boor & Small 2012)	6042218 - 6042246
19	Kurland, Jon, PRD, Email to Brandee Gerke, SFD, Re: Fwd: redline/strikeout version of draft Biop (March 11, 2014) (Kurland Email)	1025881
20	Kurland, Jon, PRD, Email to Samuel Rauch, Office of the Assistant Administrator, Re: Re: Alternative summary tables and Oceana letter (March 4, 2014) (Kurland Email)	1025686 - 1025687

Ex. No.	Description	AR Bates Nos.
21	Kurland, Jon, PRD, Email to Alicia Bishop, PRD, *et al.*, Re: SSL BiOp (Jan. 10, 2014) (Kurland Email)	1022545
22	Logerwell, Libby, AFSC/REFM, Memorandum to Brandee Gerke, SFD, Re: Draft Steller Sea Lion Biological Opinion (March 7, 2014) (Logerwell Memo)	1003453
23	Mabry, Kristin, PRD, Analysis Re: Potential for Overlap Between Groundfish Fisheries and Steller Sea Lion Foraging in the Aleutian Islands (Dec. 31, 2013) (excerpts) (Mabry Overlap Analysis)	1042618 - 1042648
24	Marine Mammal Commission, Scoping Comments (Annotated) (Oct. 19, 2012) (Marine Mammal Commission Comments)	3167483 - 3167488
25	NMFS, Record of Decision, Steller Sea Lion Protection Measures for Groundfish Fisheries in the Bering Sea and Aleutian Islands Management Area Final Environmental Impact Statement (Nov. 7, 2014) (excerpts) (ROD)	2000491 - 2000509
26	NMFS, Final Environmental Impact Statement, Steller Sea Lion Protection Measures for Groundfish Fisheries in the Bering Sea and Aleutian Islands Management Area, Vol. I (May 2014) (excerpts) (FEIS)	3160341 - 3161126
27	NMFS, Final Environmental Impact Statement, Steller Sea Lion Protection Measures for Groundfish Fisheries in the Bering Sea and Aleutian Islands Management Area, Vol. II (May 2014) (excerpts) (FEIS)	3161713 - 3162354
28	NMFS, Endangered Species Act Section 7 Consultation Biological Opinion on the Authorization of the Alaska Groundfish Fisheries Under the Proposed Revised Steller Sea Lion Protection Measures (Apr. 2, 2014) (2014 BiOp)	1044012 - 1044294
29	NMFS, AKR, PRD, Analytical Approach for 2014 Groundfish BiOp (May 2013) (Analytical Approach Memo)	3087785 - 3087799
30	NMFS, Draft Environmental Impact Statement/Regulatory Impact Review/Initial Regulatory Flexibility Analysis, Steller Sea Lion Protection Measures for Groundfish Fisheries in the Bering Sea and Aleutian Islands Management Area, Vol. I (May 2013) (excerpts) (DEIS)	3187555 - 3188294

Ex. No.	Description	AR Bates Nos.
31	NMFS, Draft Environmental Impact Statement/Regulatory Impact Review/Initial Regulatory Flexibility Analysis, Steller Sea Lion Protection Measures for Groundfish Fisheries in the Bering Sea and Aleutian Islands Management Area, Vol. II (May 2013) (excerpts) (DEIS)	3184029 - 3184569
32	NMFS, AKR, PRD, Initial Feedback on the Preliminary Preferred Alternative in the Steller Sea Lion Protection Measures EIS for the Groundfish Fisheries of the Bering Sea and Aleutian Islands (May 28, 2013) (PRD Initial Feedback)	1003372 - 1003390
33	NMFS, 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 (Nov. 24, 2010) (excerpts) (2010 BiOp)	1054121 - 1055008
34	NMFS, Recovery Plan for the Steller Sea Lion - Eastern and Western Distinct Population Segments (*Eumetopias jubatus*) Revision (March 2008) (excerpts) (Recovery Plan)	6014514 - 6014838
35	NMFS, Supplement to the Endangered Species Act – Section 7 Consultation Biological Opinion and Incidental Take Statement of October 2001 (June 19, 2003) (excerpts) (2003 Supp. BiOp)	6014331 - 6014513
36	NMFS, Endangered Species Act – Section 7 Consultation, Biological Opinion and Incidental Take Statement October 2001 (Oct. 19, 2001) (excerpts) (2001 BiOp)	6014125 - 6014330
37	NMFS, Endangered Species Act – Section 7 Consultation, Biological Opinion and Incidental Take Statement, Authorization of Bering Sea/Aleutian Islands groundfish fisheries based on the Fishery Management Plan for the Bering Sea/Aleutian Islands Groundfish; and Authorization of Gulf of Alaska groundfish fisheries based on the Fishery Management Plan for Groundfish of the Gulf of Alaska (excerpts) (Nov. 30, 2000) (2000 BiOp)	6013534 - 6014124
38	NMML, Memorandum Re: Review and Comment on the Internal Draft of the Aleutian Islands Groundfish fishery Biological Opinion (March 6, 2014) (NMML Memo)	1030862 - 1030871
39	Oceana, *et al.*, Comments on Proposed Steller Sea Lion Protection Measures for the Bering Sea and Aleutian Islands Groundfish Fisheries Off Alaska, Docket No. NOAA NMFS-2012-0013 (Aug. 15, 2014) (excepts) (Oceana Proposed Rule Comments)	5001632 - 5001746

Ex. No.	Description	AR Bates Nos.
40	Oceana and Greenpeace, Comments on the Final Environmental Impact Statement for Steller Sea Lion Protection Measures for Groundfish Fisheries in the Bering Sea and Aleutian Islands Management Area (June 27, 2014) (excerpts) (Oceana FEIS Comments)	5001532 - 5001581
41	Oceana, *et al.*, Comments on the Draft Environmental Impact Statement/Regulatory Impact Review/Initial Regulatory Flexibility Analysis for Steller Sea Lion Protection Measures for Groundfish Fisheries in the Bering Sea and Aleutian Islands Management Area (July 16, 2013) (excerpts) (Oceana DEIS comments)	5002412 - 5002430
42	Ragen, Timothy, Ph.D., Comments on Proposed Steller Sea Lion Protection Measures for the Bering Sea and Aleutian Islands Groundfish Fisheries off Alaska, Docket No. NOAA-NMFS-2012-0013 (Aug. 15, 2014) (Ragen Comments)	1047319 - 1047333
43	Rauch Email Thread Re: Draft/Final status of Steller Biop (March 20-21, 2014) (Rauch Email Thread)	1026625 - 1026628
44	Rotterman, Lisa, PRD, Comments on March 4, 2014 Internal Draft Aleutian Islands Groundfish Fishery Biological Opinion (undated) (excerpts) (Rotterman Comments)	1009672 - 1009992
45	Rotterman, Lisa, PRD, Memorandum for Brandee Gerke, SFD, Re: Review of draft of 2014 Groundfish BiOp Chapters 1-6 (March 10, 2014) (Rotterman Memo)	1025774 - 1025779
46	Declaration of Michael LeVine	
47	Declaration of John Hocevar	
48	Declaration of Rob Cadmus	
49	Declaration of Kieran Mulvaney	
50	Declaration of Kenneth Stump	