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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

GREENPEACE, AMERICAN OCEANS CAMPAIGN, and SIERRA CLUB,

Plaintiffs,

v.

NATIONAL MARINE FISHERIES SERVICE, and DONALD L. EVANS, in his official capacity as Secretary of the Department of Commerce,

Defendants,

AT-SEA PROCESSORS ASSOCIATION, UNITED CATCHER BOATS, ALEUTIANS EAST BOROUGH, and WESTWARD SEAFOODS, INC., et al.,

Defendant-Intervenors.

NO. C98-492Z

ORDER

I. INTRODUCTION

Plaintiffs Greenpeace, American Oceans Campaign, and the Sierra Club originally filed suit in 1998 challenging the National Marine Fisheries Service's (NMFS) North Pacific Fishery Management Plans for the groundfish fisheries in the Bering Sea and Gulf of Alaska. Plaintiffs claim these fisheries are harmful to the endangered Steller sea lion and seek relief under the Endangered Species Act, the National Environmental Policy Act, and the

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577

Administrative Procedure Act. This litigation has resulted in several prior motions and court rulings on various issues. For a detailed description of the relevant legal and factual background in this case, see Greenpeace v. National Marine Fisheries Service, 55 F. Supp. 2d 1248 (W.D. Wash. 1999) (hereinafter Greenpeace (I)); Greenpeace v. National Marine Fisheries Service, 80 F. Supp. 2d 1137 (W.D. Wash. 2000) (hereinafter Greenpeace (II)); and Greenpeace v. National Marine Fisheries Service, 106 F. Supp. 2d 1066 (W.D. Wash. 2000) (hereinafter Greenpeace (III)). This litigation has a long history which is outlined later in this Order. The matters presented at this time represent the latest disputes relating to the Steller sea lions.

This matter now comes before the Court on cross-motions for summary judgment related to Plaintiffs' Eighth, Ninth, and Tenth claims stated in Plaintiffs' Supplemental Complaint, docket no. 526. Plaintiffs' Eighth claim challenges the no jeopardy conclusion of the October 19, 2001 biological opinion (2001 BiOp) issued by NMFS. Plaintiffs' Ninth claim challenges the no adverse modification conclusion of the 2001 BiOp. Plaintiffs' Tenth claim challenges the no jeopardy or adverse modification conclusion as to global fishing rates in the November 30, 2000 biological opinion issued by NMFS (FMP BiOp) and the 2001 BiOp. Plaintiffs move for summary judgment on their Eighth, Ninth, and Tenth claims. See docket no. 544. Federal Defendants, the National Marine Fisheries Service and Donald L. Evans, Secretary of Commerce, cross-move for summary judgment on these claims. See docket no. 551. Defendant-Intervenors Aleutians East Borough, At-sea Processors Association, Fishing Company of Alaska, Inc., Groundfish Forum, Westward Seafoods, Inc , *et al.*, and United Catcher Boats also cross-move for summary judgment on the same claims. See docket no. 553.

The Court has reviewed the documents filed in support of and in opposition to the motions together with the relevant administrative record. On October 30, 2002, the Court heard oral argument from the parties on the issues presented by the pending motions. After oral argument, the Court took the matter under advisement. Being fully advised, the Court

now GRANTS Plaintiffs' Motion for Summary Judgment as to Claims Eight and Nine and DENIES Plaintiffs' Motion for Summary Judgment as to Claim Ten. For the same reasons, the Court DENIES Defendants' and Defendant-Intervenors' Motions for Summary Judgment as to Claims Eight and Nine and GRANTS Defendants' and Defendant-Intervenors' Motion for Summary Judgment as to Claim Ten. The Court remands the 2001 BiOp to the National Marine Fisheries Service for further action in compliance with this Order.

II. BACKGROUND

The Gulf of Alaska (GOA) and the Bering Sea/Aleutian Islands region (BSAI), collectively referred to as the North Pacific ecosystem, is home to the largest commercial fishery in the United States. The ecosystem is also home to the western population of Steller sea lions. In 1990, the western population of Steller sea lions was listed under the Endangered Species Act (ESA) as a threatened species and in 1997 was reclassified as endangered. This case arises out of the attempt to regulate this fishery in light of the presence of an endangered species and the legal dictates of the ESA and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Act), 16 U.S.C. § 1801 *et seq.* Regulation of this fishery under these dictates has been far from a simple task, as the extensive litigation history of this case, extending back to the filing of the original complaint on April 15, 1998, and the voluminous administrative record, comprising more than 50,000 pages of documents, amply demonstrate. It is clear to the Court that a tremendous amount of time, energy, and resources have been expended in attempting to end the decline of the western population of Steller sea lions, while maintaining the fishing industry that is so important to the region, on the basis of ever-changing scientific knowledge.

A. A Brief Review of the Procedural Process

Under the Magnuson Act, the North Pacific Fishery Management Council (Council) prepares Fishery Management Plans (FMPs) that regulate all aspects of the commercial fisheries in the North Pacific ecosystem. See 16 U.S.C. §§ 1852(a)(1)(G), (h). The promulgation of FMPs constitutes "agency action" under the ESA.

The ESA imposes upon the National Marine Fisheries Service the duty to "insure" that any proposed action by the Council does not "jeopardize" the continued existence of any threatened or endangered species or result in the destruction or "adverse modification" of the critical habitat of such species.[1] See 16 U.S.C. § 1536(a)(2). A species is "endangered" when it is in danger of extinction throughout all or a significant portion of its range. See 16 U.S.C. § 1532(6). The designated critical habitat of a species is intended to protect those geographical areas occupied by the species which contain the physical and biological features essential for the survival and recovery of the species. See 16 U.S.C. §§ 1532(3), 1532(5)(A)(i); see also 58 Fed. Reg. 45,269 (August 27, 1993) (final rule designating Steller sea lion critical habitat).

In order to avoid jeopardy and adverse modification, the ESA requires that the "action" agency consult with an "expert" agency to evaluate the effects a proposed agency action may have on a listed species.[2] If the action agency determines that a proposed agency action may adversely affect a listed species, the action agency is required to perform a formal consultation with the expert agency. 50 C.F.R. § 402.14(a). The final product of a formal consultation is a biological opinion (BiOp) which states the expert agency's conclusions regarding the possibility of any jeopardy or adverse modification that the proposed action would cause. See 16 U.S.C. § 1536(a)(2). When jeopardy or adverse modification is found, the expert agency must propose "reasonable and prudent alternatives" (RPAs), by which the action can proceed without causing jeopardy or adverse modification. See 16 U.S.C. § 1536(b)(3)(A).

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[1] "Jeopardize" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. "Adverse modification" means "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." Id.

[2] In this case, NMFS's Office of Sustainable Fisheries is the "Action" Agency and NMFS's Office of Protected Resources is the "Expert" Agency.

B. A Brief Review of the Agency Actions and Litigation History

In April 1998, Plaintiffs filed suit in this Court initially alleging that NMFS was implementing a North Pacific fishery management plan without a comprehensive Environmental Impact Statement or adequate biological opinions addressing the effect of the fisheries on the Steller sea lion. See Complaint, docket no. 1. Plaintiffs specifically challenged biological opinions issued by NMFS in January 1996 for the BSAI and in March 1998 for the GOA. On October 9, 1998, this Court stayed the pending litigation because NMFS represented to the Court that it was in the process of preparing a Supplemental Environmental Impact Statement and a new biological opinion that would address all federally managed fisheries in the BSAI and GOA. In December of 1998, NMFS issued two biological opinions addressing the potential effects of the North Pacific groundfish fisheries on the Steller sea lion. The first opinion (BiOp1) discussed the effects of the pollock and Atka mackerel fisheries on the Steller sea lion. The second opinion (BiOp2) considered the effects of the FMP in their entirety. Plaintiffs challenged both of these opinions.

In BiOp1, NMFS concluded that the mackerel fishery was not likely to jeopardize the Steller sea lion population but that the pollock fishery was likely to result in jeopardy. The Court upheld these findings under the ESA. See Greenpeace (I), 55 F. Supp. 2d 1248, 1269 (W.D. Wash. 1999). However, the Court ruled that the RPA adopted by the Council and approved by NMFS with respect to the pollock fishery was arbitrary and capricious and remanded to NMFS for preparation of a revised RPA. Id. at 1276. In October, 1999, NMFS issued Revised Final Reasonable and Prudent Alternatives for the pollock fishery.

In BiOp2, NMFS analyzed the effects of its entire fishery management scheme on the Steller sea lion. The Court ruled on January 25, 2000 that BiOp2 was inadequate under the ESA because it was not a comprehensive opinion and failed to analyze the full scope of the FMP. Greenpeace (II), 80 F. Supp. 2d 1137, 1150 (W.D. Wash. 2000). Thereafter, on July 19, 2000, this Court enjoined all groundfish trawl fishing within Steller sea lion critical

habitat in the oceans of the BSAI and GOA west of 144° W longitude.[3] The Court concluded that NMFS was in continuing violation of the ESA and plaintiffs had proven both "irreparable harm" and that continued fishing posed "a reasonably certain threat of imminent harm" to the Steller sea lion. Greenpeace (III), 106 F. Supp. 2d 1066, 1080 (W.D. Wash. 2000).

On November 30, 2000, NMFS issued a new biological opinion on the North Pacific groundfish fisheries (FMP BiOp) and the Court dissolved the injunction. See Order, docket no. 486. The FMP BiOp also concluded that the FMP in existence was likely to jeopardize endangered Steller sea lions and adversely modify their designated critical habitat. See S6-249 at 268, 270. Accordingly, NMFS included an RPA to the FMP in the FMP BiOp. Id. at 271-300. The RPA contained within the FMP BiOp imposed a series of heightened regulations on the North Pacific fisheries 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. Id. at 271-72.

After the issuance of the FMP BiOp, a rider was placed on an appropriations bill limiting the implementation of the RPA. See Consolidated Appropriations Act, 2001, Pub. L. No. 106-554, § 1(a)(4), [Div. A, § 209], 114 Stat. 2763, 2763A-176 (2000). The legislation required NMFS and the Council to consult and review the measures necessary to protect the Steller sea lion and its critical habitat. As a result of this legislation the Council proposed a number of changes to the RPA in the FMP BiOp to be implemented through the Magnuson Act procedures (Amended RPA). The Amended RPA reopened areas of critical habitat to fishing previously closed by the RPA, eliminated the four season dispersal of

[3] Critical habitat for Steller sea lions consists of all major rookeries and haulouts in Alaska west of 144° W longitude, including the associated waters within 20 nautical miles (nm) of these sites, and three special aquatic foraging areas. S6-249 at 60-61.

fishing within critical habitat except for pollock, and removed many of the spatial distribution measures implemented in the RPA. S8-549, Table 3.1 at 39-42, Table 5.4 at 153.

Because of the passage of legislation, and its effect on implementation of the RPA in the FMP BiOp, the parties agreed to temporarily stay litigation. On March 6, 2001, the Court entered a Stipulation and Order staying this litigation until June 15, 2001. NMFS subsequently announced that it intended to reinitiate consultation on the FMPs and release a new biological opinion on October 19, 2001. The Court therefore entered a Stipulation and Order continuing the stay until November 1, 2001.

NMFS reviewed the Amended RPA and issued a new biological opinion on October 19, 2001 (2001 BiOp). The 2001 BiOp was limited to a review of the Amended RPA and did not reconsider the original jeopardy and adverse modification conclusion of the FMP BiOp. The 2001 BiOp found that the Amended RPA was not likely to jeopardize the continued existence of the western population of Steller sea lions or adversely modify their critical habitat. See id. at 185. The 2001 BiOp states in part that the FMP BiOp "will remain in effect as NMFS' coverage at the plan level, and this opinion will address the project level effects on listed species that would be likely to occur if the Council's preferred action were implemented." Id. at 8. Thus, the 2001 BiOp supplements, but does not replace the FMP BiOp. Therefore, the Court must review both biological opinions to resolve the pending motions.

III. ANALYSIS

A. Standard of Review

Challenges to biological opinions issued pursuant to Section 7 of the ESA, 16 U.S.C. § 1536, are reviewed under the Administrative Procedures Act (APA) to determine whether the biological opinion was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). A biological opinion is arbitrary and capricious if it fails to articulate a satisfactory explanation for its conclusions, relies on factors which Congress did not intend for it to consider, or fails to consider an important

aspect of the problem. See Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). Courts will defer to an agency's technical or scientific expertise. See Central Ariz. Water Conservation Dist. v. United States EPA, 990 F.2d 1531, 1540 (9th Cir. 1993); United States v. Alpine Land & Reservoir Co., 887 F.2d 207, 213 (9th Cir. 1989). However, this deference is not unlimited, and the presumption of expertise may be rebutted if the agency's decisions are based on science but are shown to be not reasonable. Defenders of Wildlife v. Babbitt, 958 F. Supp. 670, 679 (D.D.C. 1997); N. Spotted Owl v. Hodel, 716 F. Supp. 479, 482 (W.D. Wash. 1988).

B. Claim Ten of the Supplemental Complaint

Claim Ten of the Supplemental Complaint alleges that the FMP BiOp and the 2001 BiOp are arbitrary and capricious because they determined that jeopardy and adverse modification would not result until key Steller sea lion prey populations were reduced below the target population level established in current FMPs. Plaintiffs make two arguments in their motion for summary judgment as it relates to Claim Ten of the Supplemental Complaint. Plaintiffs argue that the FMP BiOp's conclusion that the overall harvest rates set forth in the FMP will not cause jeopardy or adverse modification to the Steller sea lion critical habitat is arbitrary and capricious. Second, Plaintiffs contend that the global control rule as set forth in the RPA is arbitrary and capricious because it will not prevent jeopardy or adverse modification. Defendants contend that Plaintiffs' claims are without merit and that Claim Ten of the Supplemental Complaint should be dismissed.

1. Overall Harvest Rates

Plaintiffs' first challenge is to the conclusion of the FMP BiOp, which is incorporated in the 2001 BiOp, that the overall level of fishing allowed under the status quo fishery management plan does not jeopardize the continued existence of Steller sea lions or adversely modify their critical habitat. The FMP BiOp concluded that there was "no significant, relevant evidence that the current exploitation strategy (which reduces the

biomass to between 40 and 60% of the predicted unfished biomass)[4] adversely affects listed species by reducing their likelihood for survival and recovery in the wild." S6-249 at 250. Plaintiffs contend that this conclusion is arbitrary and capricious because it is not supported by data within the FMP BiOp and runs contrary to the FMP BiOp's concomitant finding that "biomass reductions of Steller sea lion prey species, along with other factors such as climate change, natural predators, etc., were a significant contributing factor of the reduction and current decline of the population of Steller sea lions." Id. at 259. Nonetheless, the FMP BiOp goes on to state that "the current strategy maintains biomass at acceptable levels." Id. These two statements appear at first glance to be contradictory, but are not necessarily irreconcilable.

Although the Court "may not supply a reasoned basis for the agency's action that the agency itself has not given," Bowman Transp., Inc. v. Arkansas-Best Freight System, Inc., 419 U.S. 281, 285-86 (1974) (citing SEC v. Chenery Corp., 332 U.S. 194, 196 (1947)), the Court should "uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned." Bowman, 419 U.S. at 286. Plaintiffs contend that the FMP BiOp's analysis of total catch rates is "limited to a single paragraph." Plaintiffs' Motion for Summary Judgment, docket no. 544, at 15. This argument fails to view the FMP BiOp as a complete document and fails to take into consideration the other conclusions of the FMP BiOp. The FMP BiOp extensively reviewed the population trends of the Steller sea lion and the overall fishing rates, and concluded that the manner in which the current fishing strategy contributed to the decline of the species was not by reducing *overall* biomass, but by causing *localized depletions*, temporally and spatially within the Steller sea lion's critical habitat, which nutritionally stresses Steller sea lions.

[4] The 40-60% reduction in spawning biomass (*spawning* biomass excludes juvenile fish because they do not aid in the reproductive success of the population) from unfished levels is an extrapolation of what the fish population would look like if there were no commercial fishery, compared to the current population.

The conclusion that the harm to the Steller sea lion derives from concentrated localized fishing in critical habitat areas and not from global depletion of prey species has been the assumption and conclusion of NMFS beginning with the Steller sea lion critical habitat designation in 1993. See AR 5 at 3, 58 Fed. Reg. 45,269, 45,271 (Aug. 27, 1993) ("At present, NMFS believes that the exploitation rates in federally managed fisheries are unlikely to diminish the overall abundance of fish stocks important to Steller sea lions. However, spatial and temporal regulation of fishery removals in some areas has been determined to be necessary to ensure that local depletion of prey stocks does not occur."); AR 114 at 236, Report by National Research Council (stating that it is unlikely that the total rate of depletion of pollock has been responsible for a decrease in mammals and that "[i]t is more likely that marine mammals and birds have been affected by the distribution in space and time of fishing effort on pollock . . . ."). These assumptions were reviewed and challenged as part of the process of developing the FMP BiOp. See, e.g., S6-99 at 2 (discussing the assumptions made regarding overall harvest in the 1998 BiOp and concluding that the assumption that total allowable catch is irrelevant "dramatically underestimated the potential adverse effects of the fisheries on the marine ecosystem of the North Pacific"); S6-123 (asking, "On what basis does sustainable fisheries insure that such a reduction in prey does not have serious effects on listed species, critical habitat, or the ecosystems?").

In light of the questions raised regarding this baseline presumption that the 40-60% reduction in spawning biomass was not detrimental to the Steller sea lions, an Analytical Team was formed to analyze this and other presumptions of the FMP BiOp. See S6-126. The Analytical Team concluded that as "the current groundfish prey stock size is at 58% of the unfished level while the abundance of [Steller sea lion] is about 22% of their assumed original carrying capacity . . . it is unlikely that the current overall abundance levels of groundfish are restricting [Steller sea lion] carrying capacity." S6-160 at 6. Additionally, the Analytical Team considered ecosystem wide effects of prey removal and concluded that current science indicates that "under the status quo regime, there has not been clear evidence

of fishing as the cause of species fluctuations through food web effects" and "no evidence that groundfish fisheries caused declines" in diversity. Id. at 32, 36. The conclusions of the Analytical Team support the FMP BiOp's assumption that overall harvest rates are not the cause of Steller sea lion population decline.[5]

The FMP BiOp also includes a Steller sea lion case study estimating prey availability for Steller sea lions based on the 1999 prey biomass estimates. S6-249, App. 3. The case study supports the conclusion that the current overall harvest rates do not adversely affect the Steller sea lions. It concluded, in part, that estimates of food requirements for the sea lion population "are below available biomass even at current fishing mortality . . . ." S6-249 at 226. This conclusion was reached by estimating the monthly amount of prey availability in the North Pacific Ecosystem and comparing it to monthly estimates of sea lion prey consumption. See S6-249, App. 3 at 1-2. The comparison demonstrated that "the available data on monthly consumption requirements relative to the total biomass of three important prey species in critical habitat are consistent with the conclusion that forage availability (without consideration regarding species composition or spatial distribution) is adequate to support the recovery of Stellar sea lions to optimal population levels." Id. at 2. The case study's ultimate conclusion was that:

> Based on the available information, it is reasonable to expect the groundfish fisheries do compete with non-human consumers in the marine ecosystem in the BSAI and GOA. However, this competition occurs as a result of the temporal and spatial behavior of the fishing fleet, and removals by this fleet on a local level, not as a result of a decrease in total prey availability due to the reduction of total fish biomass.

Id. at 4. The 2001 BiOp continues this discussion and states that a review of the current estimates of Steller sea lion population and prey availability "could lead one to conclude that

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[5] Plaintiffs challenge NMFS's reliance on the conclusions of the Analytical Team because they are the views of the Action Agency rather than the Expert Agency. A conclusion by the Expert Agency that the Action Agency has properly analyzed the data is not, however, foreclosed under the review process required by the ESA.

there is sufficient forage in the Gulf of Alaska, Bering Sea, and Aleutian Islands, combined, to support a healthy stock of Steller sea lions." S8-549 at 166.[6]

Plaintiffs direct the Court to remarks by other contributors and reviewers challenging this assumption and conclusion of the FMP BiOp. One reviewing scientist criticizes the finding by arguing that it does not account for the fact that a reduction of overall prey will force predators to expend greater resources catching prey even where there is sufficient prey to be caught. S8A1-851 at 1-2. Although this criticism may be valid, it does not make NMFS's decision to rely on the opposite conclusion arbitrary and capricious. Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378 (1989) ("When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive.").

Accordingly, the Court concludes that the FMP BiOp's determination that the Overall Harvest Rates do not cause jeopardy or adverse modification is not arbitrary and capricious.

2. Global Control Rule

Plaintiffs contend that even if NMFS's no jeopardy or adverse modification conclusion regarding the overall harvest rates is not arbitrary and capricious, the global control rule set out in the Amended RPA is arbitrary and capricious. The global control rule is a protective measure that alters the allowable biological catch ("ABC") of pollock, Pacific cod, and Atka mackerel on a sliding scale basis as projected prey stocks drop. The goal of the global control rule is to prevent a decline in total biomass to a level that would jeopardize Steller sea lions. The dispute between Plaintiffs and Defendants is whether the global control rule set out in the Amended RPA is sufficiently stringent to keep prey stocks from dropping to an overall level that would cause jeopardy or adverse modification.

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[6] This conclusion is based on the assumption that a Steller sea lion needs between 22 times to 46 times more forage than it is capable of consuming in a single year. These figures are known as the "forage ratio." S8-549 at 164.

The global control rule in effect at the time of the FMP BiOp began reducing fishing when prey stocks fell below 40% of unfished levels, and prohibited fishing when prey stocks fell to a projected theoretical level of 2% of unfished levels. S6-249 at 212, 259; S6-160 at 26-28. In the Amended RPA, NMFS set out a revised global control rule which starts limiting the amount of fishing when estimated prey stocks are less than 40% of unfished biomass, and bans all fishing when stocks drop to 20% of unfished levels.[7] S8-549 at 24-25. Plaintiffs argue that this rule is inadequate because the FMP BiOp and the 2001 BiOp conclude that fishing which reduces prey biomass to below 40% of unfished levels will not insure protection of the Steller sea lion. Defendants assert that the biological opinions never concluded that a drop below 40% would cause jeopardy or adverse modification. Defendants argue that the global control rule in the Amended RPA is consistent with the conclusion that jeopardy or adverse modification would occur only if fishing stocks drop to an unknown level that is below 20% of unfished levels.

The FMP BiOp states that "biomass reductions of important groundfish species below 40% of their unfished level would not insure the protection of listed species or their environment." S6-249 at 250-51. The FMP BiOp also states that although current fishing strategies had maintained biomass at acceptable levels, "the current harvest control rule in use by NMFS allows for significant variation below the target biomass level. . . . [T]he fishery could be conducted to the point that only 2% of the unfished biomass remained." Id. at 259. Accordingly, in the FMP BiOp RPA, the FMP BiOp concluded that the global control rule had to be revised to prevent "directed fishing for a species when the spawning

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[7] The Amended RPA slightly changed the global control rule NMFS proposed in the FMP BiOp RPA. The global control rule in the RPA started limiting fishing at a linear rate when stocks reached 40% of unfished levels and banned fishing when stocks reached 20% of unfished levels. S6-249 at 273. Under the Amended RPA, the global control rule limits fishing when prey stocks are between 40% of unfished levels and 20% of unfished levels at a slightly slower rate, and bans fishing when prey stocks reach 20% of unfished levels. S8-549 at 24-25. The changes between the RPA and the Amended RPA do not significantly affect Plaintiffs' challenges to the global control rule. Thus, the Court need not consider the justification for the rule separately under the FMP BiOp and the 2001 BiOp.

biomass is estimated to be less than 20% of the projected unfished biomass." Id. at 271. The FMP BiOp RPA concluded that because "fishing for pollock, Pacific cod and Atka mackerel under this control rule would cease at a population size 10 times larger than under current practices," it should "ensure that adequate levels of each prey species are maintained for Steller sea lions." Id. at 273.

Plaintiffs contend it was arbitrary and capricious for NMFS not to ban all fishing when projected spawning biomass falls below 40% of unfished levels. Plaintiffs' argument hinges on the statement in the FMP BiOp that "biomass reductions of important groundfish species below 40% of their unfished level would not insure the protection of listed species or their environment."[8] Id. at 250-51. Plaintiffs, however, take this statement out of context. The previous sentence states that the current fishing strategy (referring to the 1999 plan), which sought to maintain prey stocks at an average of 40% of unfished levels, did not adversely affect Steller sea lions. Id. at 250. The statement on which Plaintiffs rely was summary language placed at the start of a lengthy discussion regarding the current harvest strategy. The FMP BiOp concluded that the current harvest strategy maintained target biomass at an acceptable level. Id. at 259. Thus, the statement does not say that any reduction of biomass below 40% would cause jeopardy or adverse modification, but that a fishing strategy that attempted to have a target fishing level below 40% would not be sufficiently protective. Plaintiffs' attempt to conflate the FMP BiOp's conclusion regarding the lowest target fishing level needed to insure protection with a conclusion that all fishing must be banned when stocks drop below 40% of unfished levels is faulty. The goal of the global control rule is to have the "forage base of a particular prey item [be] on average above 40% of unfished biomass," S6-864 at 2, and thus the conclusion that a modified amount of fishing can continue after stocks fall below 40% of unfished levels is not arbitrary and

[8] Other than this sentence, Plaintiffs do not direct the Court to any discussion within the administrative record regarding a threshold global level of prey necessary for the protection of the Steller sea lions.

capricious. Although NMFS stated that "take"[9] of Steller sea lions could be expected to occur below a biomass level of 40%, S6-249 at 259, "take" is not the same as a jeopardy or adverse modification conclusion, which requires a separate inquiry. See id. at 258-59. Moreover, scientists discussing the global control rule worked from the assumption that the 40% line was not a jeopardy or adverse modification line. S6-854; S6-855.

Plaintiffs argue that the ban on fishing when prey stocks reach 20% of unfished levels is arbitrary and capricious because NMFS failed to explain why it drew the line at 20%. Defendants argue that the 20% line is adequate to insure against jeopardy and adverse modification. Defendants argue that 20% was chosen because it was so high that jeopardy or adverse modification could not possibly result. Transcript, docket no. 571, at 69.

The administrative record provides some support for Defendant's argument. The FMP BiOp states in the RPA that a global control rule that requires fishing to stop at a population size 10 times larger than under current practices "should ensure that adequate levels of each prey species are maintained for Steller sea lions." S6-249 at 273. One member of the RPA team stated in an email that "the [Steller sea lion] population will be in jeopardy of continued existence from a perspective of the 'F40' strategy alone should the forage level drop to where it would no longer support a population as large as 20,000 animals (i.e., a 0.2 ratio of fish biomass current to unfished biomass)." See S6-864 at 2 (Email from Dr. DeMaster). Although the administrative record does not clearly state when jeopardy or adverse modification would occur, Plaintiffs acknowledged at oral argument that the ESA does not require NMFS to actually declare such a line. Transcript, docket no. 571, at 92. Therefore, given that the global control rule at the time of the FMP BiOp did not prohibit fishing until prey stocks reached 2% of unfished levels while the Amended RPA bans fishing at a figure ten times the previous amount, and given that no jeopardy or adverse modification

[9] The ESA defines "take" as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" and does not require that actual death occur or that the species population declines. 16 U.S.C. § 1532(19).

could be expected to occur until prey stocks fell below 20% of unfished levels, the Court finds that the 20% line chosen by NMFS is not arbitrary and capricious. The Court finds that the 20% line is sufficiently high to insure that no jeopardy or adverse modification will occur. The Court notes that currently no prey stocks are even near 20% of their unfished levels.

Because the Court has determined that the FMP BiOp's conclusion that the overall harvest rates will not cause jeopardy or adverse modification to the Steller sea lion critical habitat was not arbitrary and capricious, the Court does not find that the global control rule violates the ESA. This strategy is a prudent and reasonable action in light of the uncertainties surrounding the impacts of overall decreased prey availability.[10]

For the foregoing reasons, the Court DENIES Plaintiffs' Motion for Summary Judgment and GRANTS Defendants' and Defendant-Intervenors' Cross-Motions for Summary Judgment as to Claim Ten of the Supplemental Complaint, docket no. 526.

C. Claims Eight and Nine – 2001 BiOp Conclusions Regarding Jeopardy and Adverse Modification

The ESA requires NMFS to "insure that any action . . . is not likely to jeopardize the continued existence of any endangered species . . . or result in the destruction or adverse modification of habitat or such species." 16 U.S.C. § 1536(a)(1). Plaintiffs argue that NMFS acted arbitrarily and capriciously in concluding in the 2001 BiOp that the 2001 proposed amendments to the FMP BiOp RPA are not likely to adversely modify the designated critical habitat of the western population of Steller sea lions or jeopardize the continued existence of the Steller sea lions. First, Plaintiffs contend that the "zonal approach" applied in the 2001 BiOp is arbitrary and capricious because it relies upon

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[10] See, e.g., Review of the November 2000 Biological Opinion and Incidental Take Statement with respect to the Western Stock of the Steller sea lion, S8-176 at 48-49 (concluding that review of the effect of global fisheries on the Steller sea lion population results in a determination that "there is no justification for altering the current control rule for pollock, cod, and Atka mackerel.").

conclusions that scientific data does not support. Plaintiffs further argue that insofar as the no jeopardy and no adverse modification findings relied on the DeMaster Study, S8-650, they are arbitrary and capricious. Second, Plaintiffs argue that the 2001 BiOp failed to assess or analyze the likely effects on Steller sea lions and their prey that the level of fishing allowed under the Amended RPA in critical habitat causes. Each of these arguments relates equally to claims Eight (relating to the no jeopardy conclusion of the 2001 BiOp) and Nine (relating to the no adverse modification conclusion of the 2001 BiOp) of the Supplemental Complaint.[11]

1. Zonal Approach

The driving force behind the Amended RPA was a determination that different areas of critical habitat are of varying levels of importance to Steller sea lions, based on how much Steller sea lions use each area. See S8-549 at 18 ("This opinion focuses on the modifications to the FMP because they were developed to be in lieu of the previous RPA. . . . [G]iven the new biological information of Steller sea lions, [the conclusion was reached] that there were other possible ways to avoid jeopardy and adverse modification for sea lions and their habitat."). The Amended RPA was developed and reviewed under a "zonal approach" to management. This zonal approach was developed in large part on the basis of telemetry data.[12] Id. at 139 ("The results from current telemetry analyses . . . provide a basis to begin evaluating sea lion foraging ecology at a level of detail not previously possible.").

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[11] While the concepts of jeopardy and adverse modification overlap considerably, they are two separate standards and are to be analyzed separately. Conservation Council for Haw. v. Babbitt, 2 F. Supp. 2d 1280, 1287 (D. Haw. 1998). Plaintiffs' challenges to the no jeopardy and no adverse modification conclusions, however, are based on the same arguments.

[12] Satellite telemetry is a method of tracking the movements of Steller sea lions. A satellite linked time-depth recorder ("SDR"), which is composed of a small package of electronics, is glued to a sea lion's back. S8-549 at 135. The SDR transmits depth information from the unit up to orbiting satellites which then triangulate the source beam to estimate a location of the animal. Id. Between 1990 and March 2001, 98 SDRs were deployed on Steller sea lions in the western stock. Id.

Using telemetry data to track Steller sea lion locations, NMFS concluded that 75% of Steller sea lion foraging effort occurs within 10 nm of shore and only 25% occurs beyond the 10 nm zone.[13] Based on this data, NMFS for the first time designated varying importance levels to different areas of critical habitat. Id. at 142-144, Table 5.2 at 145. Thus, critical habitat from 0-3 nm was rated as of "high" concern, 3-10 nm was also of "high" concern, 10-20 nm was of "low to moderate" concern, and beyond 20 nm was of "low" concern. Id., Table 5.2 at 145. The 2001 BiOp also re-evaluated the importance of spatial, temporal, and global effects of fishing. Id. Spatial dispersion (outside 10 nm) was rated of "low" concern, temporal dispersion (outside 10 nm) was rated of "low to moderate" concern, and global fishing effects were rated of "moderate" concern. Id.

Plaintiffs challenge the development and use of the "zonal approach" as an effective tool to evaluate conservation methods. Plaintiffs contend that the data NMFS relies upon does not support the conclusions drawn under the "zonal approach" regarding the relative importance of each segment of critical habitat. Plaintiffs argue, therefore, that any fishing plan which relies upon the varying importance of different areas of critical habitat is arbitrary and capricious. Defendants assert that the new telemetry data is sufficient to support the conclusions drawn in the 2001 BiOp, and that the Court is required to give deference to the conclusions of the agency's experts in regard to this data. Plaintiffs raise two arguments regarding the telemetry data: (a) the telemetry data relied upon by NMFS did not present any new insight into Steller sea lion behavior but simply confirmed facts already known and therefore cannot be rationally related to a different view of critical habitat, and (b) NMFS ignored the significant caveats placed on the data by the scientists presenting the data and therefore failed to rationally relate the facts found in the data to the choices made in developing the Amended RPA. Defendants respond that the data provided more insight and knowledge as to Steller sea lion foraging habits and is rationally connected to the conclusions

[13] Plaintiffs allege that this conclusion itself is arbitrary and capricious. This argument will be discussed further below.

drawn. Defendants also argue that NMFS discussed and properly evaluated each of the caveats connected to the data.

a. Is the Telemetry Data Sufficiently "New" in Order to Support the New Conclusions Regarding Critical Habitat?

Plaintiffs argue that the zonal approach is arbitrary and capricious because it is based on information that was previously known to NMFS. Plaintiffs contend that when the agency alters its earlier conclusions, it must produce evidence that supports a change, and if there is no new data or evidence, any change is arbitrary and capricious. Plaintiffs rely on Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co., 463 U.S. 29, 42 (1983), in which the Court held that "an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance." Plaintiffs admit, however, that all of the telemetry data considered in the 2001 BiOp was not available to NMFS in earlier opinions. See Plaintiffs' Motion for Summary Judgment, docket no. 544, at 29. Plaintiffs' argument is that the additional data did not "provide[] a substantially different picture of Steller sea lion use of habitat than that previously known and understood by NMFS . . . [and] simply served to reinforce the agency's previous conclusions." Id.

Plaintiffs' argument lacks merit because the zonal approach does not fundamentally alter any prior conclusions NMFS made. In prior biological opinions, NMFS treated all critical habitat in the same manner, although NMFS recognized that there was a possibility that not all critical habitat was of the same importance to Steller sea lions. See, e.g., S6-249 at 95-96. The additional cumulative knowledge presented in the telemetry data for the first time in the 2001 BiOp led NMFS to conclude that critical habitat ought to be divided into sections. NMFS did not reverse or rescind earlier scientific conclusions, but merely concluded on the basis of additional knowledge – which did not contradict earlier considerations – that a more refined approach to reviewing impacts on critical habitat was possible.

The administrative record demonstrates that the satellite telemetry data available in 2001 was sufficiently "new." The 2001 BiOp states:

> There is considerable information contained in the telemetry data already collected, and more coming in daily from recent deployments. Numerous manuscripts are in preparation, which reflect a range of hypotheses and opinion on the utility of such data. In many ways this biological opinion is on the leading edge, utilizing all of the newly available data to make the best determination we can to provide for the survival and recovery of Steller sea lions. . . . NMFS must use the best available scientific and commercial data to determine whether the proposed action is likely to jeopardize the continued existence of Steller sea lions or destroy or adversely modify their critical habitat.

S8-549 at 142. The 2001 BiOp acknowledges that satellite telemetry data was considered in the FMP BiOp, but "the level of analysis at that time was very coarse." Id. at 135; see S6-249 at 87-88. The 2001 BiOp goes on to state that at the time of the FMP BiOp, the "level of detail for the analysis was at a fairly broad level of critical habitat, and provided little information for treating different parts of critical habitat in different ways. This information was crucial in making the determination that all of critical habitat should be protected in a substantial way." S8-549 at 137. During the RPA Committee[14] process used to develop the Amended RPA, several presentations regarding telemetry data were given to the RPA Committee. Id. at 137-39. These presentations included analyses of data that had not been available earlier. Id. at 139. The conclusions that led to the zonal approach were based "on these new preliminary reports" that analyzed the data. Id.

The 2001 BiOp provides a rational explanation for how the new analysis led to the further refinement of conclusions to be drawn from telemetry data. It clearly states in conclusion that:

> The results from current telemetry analyses by NMML, ADF&G, and Dr. Andrews provide a basis to begin evaluating sea lion foraging ecology at a level of detail not previously possible. Although most of this data was available during the drafting of

[14] The RPA Committee was created by the Council to review scientific and commercial data, provide recommendations for Steller sea lion protection measures, and develop the Amended RPA. S8-549 at 12.

> the FMP biological opinion, the analyses described here were not. As described above, NMFS previously considered all critical habitat to be equally as important to sea lion foraging. In other words, we knew animals spent a lot of time close to shore, but weren't able to quantify that amount. Preliminary analyses of the frequency and distribution of sea lion locations is described in ADF&G and NMFS (2001), which provides a rudimentary attempt to relate sea lion distribution with foraging effort in order to estimate competitive overlap with fisheries.

Id. Accordingly, the Court concludes that using telemetry data in the 2001 BiOp to evaluate impacts on critical habitat was not arbitrary and capricious.

b. Did NMFS Properly Review the Caveats Placed on the Telemetry Data?

Plaintiffs argue that the 2001 BiOp improperly concluded that the telemetry data represents foraging sites of the Steller sea lions. There does not appear to be any dispute that the telemetry data is the "best available science" for tracking where Steller sea lions are *located*. The dispute is whether it is sufficient evidence to make a rational determination of where Steller sea lions *forage*. In addition, Plaintiffs contend that the conclusions reached ignore the limitations placed on the data by the nature of satellite telemetry. Plaintiffs' argument is that NMFS ignored the caveats that the scientists placed on the data and analyses, thereby making NMFS's conclusions arbitrary and capricious.

(i) Location vs. Foraging

The 2001 BiOp notes that the author of the telemetry studies "pointed out the danger of using the telemetry data to estimate the percentage of time the instrumented sea lions may have spent at specific distances from shore, and then further inferring from that information the spatial distribution of foraging bouts." S8-549 at 137-38. Additionally, the 2001 BiOp notes that another "preliminary study demonstrated that observations of where sea lions travel and dive do not necessarily allow one to distinguish productive feeding areas from unproductive ones." Id. at 138. In using the telemetry data to make conclusions regarding the importance of different areas of critical habitat, NMFS recognized that contrary to these caveats, "[t]he critical assumption that must be made here is that the observed at-sea

distributions are indicative of sea lion foraging" and as "NMFS has no indication that disproportionate benefits would accrue from foraging at various distances from land, therefore drawing from the information above that roughly 75% of the at-sea distributions occur within 10 nm from shore, we can then speculate that about 75% of the foraging effort occurs within 10 nm from shore . . . ." Id. at 139. Basically, NMFS recognized that the telemetry data does not necessarily describe foraging behavior accurately. However, because there is no information that Steller sea lions forage more extensively or successfully further from shore, NMFS found it reasonable to attribute equal foraging success to each of the areas where Steller sea lions are found. Thus, if Steller sea lions forage equally successfully in both the areas of 0-10 nm and 10-20 nm from shore, and spend approximately three times longer in the 0-10 nm zone, NMFS found it reasonable to conclude that the 0-10 nm zone is three times as important to the Steller sea lions. Id.

The fundamental disconnect between Plaintiffs and Defendants is in their interpretation of the telemetry studies. Defendants state that they are acting conservatively by equating every site with foraging, and that clearly Steller sea lions could not be foraging where they never go. Plaintiffs argue that because there is no evidence that nearshore locations constitute foraging areas, it is equally likely that all foraging takes place outside the 0-10 nm zone or that equal amounts of foraging take place in each zone, so NMFS should not assume that every location is a foraging location. In response to this caveat that location does not necessarily equate with foraging, Defendants have supplied a rational explanation for how and why they chose to ignore the caveat. NMFS states that the telemetry data is the best science available for evaluating foraging areas and that there is no science available to show whether "there are areas of ocean, a time of day or distance from land that is more or less important or effective for a foraging Steller sea lion." Id. Plaintiffs argue that the Court should find their reading of the data to be more reasonable; however, that is not the Court's responsibility. The Court concludes that NMFS's conclusions are supported in the record and were not arbitrary and capricious.

(ii) Nearshore Bias

The caveat that location does not necessarily correspond to successful foraging is only the first of the caveats regarding the telemetry data. The caveat NMFS described in the 2001 BiOp as "one of the most confounding" is that "Steller sea lion at-sea behavior is considered to be different near haulouts and rookeries than it is further offshore." Id. at 139. Steller sea lion nearshore behavior involves spending a great deal of time on the surface, allowing the telemetry transmitters to transmit data. Id. at 139-40. The offshore activity tends to include more deep diving behavior, during which the transmitters would be unable to transmit location data. Id. at 140. Thus, this differing behavior pattern creates a bias in the data because of the nature of satellite telemetry.[15] Steller sea lion location data will only be recorded for those areas in which a Steller sea lion stays above water or resurfaces repeatedly during a ten-minute period. Telemetry data will thus fail to record location data for much offshore activity.[16] Accordingly, "the probability of obtaining at-sea locations near haulouts and rookeries is likely higher than when [the Steller sea lions are] further offshore," thereby biasing the data towards a finding that more foraging occurs nearshore. S8-576 at 13. In an effort to account for this bias, the authors of the telemetry study filtered the data by discounting 90% of the at-sea locations from the 0-2 nm zone. Id.; S8-549 at 140.

This filtered data was considered in the 2001 BiOp, but did not alter the 2001 BiOp's conclusion that the 0-10 nm zone was of greater importance to Steller sea lions. S8-

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[15] An SDR must be above the water in order to provide a signal to the orbiting satellite. S8-549 at 135. An SDR will attempt to send a signal to a satellite every forty seconds if the sensor determines that the instrument is above the surface. Id. If the instrument is not above water it will attempt to send a signal the next time it is above water. Id. Multiple transmissions must be received within a ten-minute period in order for a satellite to estimate a location. S8-576 at 13.

[16] For example, the telemetry data for adult females in the GOA during the summer breeding season shows that Steller sea lions "made distant offshore trips >100 nm from shore, yet locations were not obtained between 8 and 100 nm." S8-576 at 13. Additionally, other data demonstrates that because "the first prey ingestion event occurs at least 0.9 hours after departure from a rookery. . . . a portion of nearshore at-sea locations do not represent locations where animals successfully obtained prey." Id.

549 at 141 (stating that both the filtered and unfiltered data demonstrate that the 0-3 and 3-10 nm zones were the most important based on Steller sea lion locations, "except for adults in winter and pups and juveniles in summer"). However, a closer look at the filtered data in fact demonstrates that in summer the 3-10 nm zone and the 10-20 nm zone are of approximately the same importance (14.9% of observations vs. 12.6% of observations) for pups and juveniles, and that more than 50% of the at-sea locations for pups and juveniles in the summer were outside of the 0-10 nm zone. Id. at 142, Table 5.1b. Similarly, for adult Steller sea lions in winter the amount of time spent in the 3-10 nm zone (14.7%) was roughly equivalent to the amount spent in the 10-12 nm zone (11.8%), and more than 50% of the at-sea locations were outside the 0-10 nm zone. Id.

Defendants argue that the categories of pups and juveniles in summer and adults in winter should not be considered when drawing conclusions from telemetry data. Id. at 140-41; Transcript, docket no. 571, at 48-55. Excluding this data means that much of the telemetry data is not considered. In the summer, excluding pups and juveniles reduces the amount of telemetry data by over two-thirds. S8-549 at 142, Table 5.1b. Defendants further argue that telemetry data for adults need not be considered at all because pups and juveniles are the key population segment that is driving the Steller sea lion decline. Transcript, docket no. 571, at 52- 54. The 2001 BiOp states that juveniles that have been weaned are "the age class likely to be a critical factor in the current decline of the western population" and that "pups and juveniles are the most likely part of the sea lion population affected by nutritional stress, localized depletions, and predation . . . ." S8-549 at 140-41, 139. Telemetry research has focused on pups and juveniles because the leading hypothesis is that their survival is central to the decline of Steller sea lions. Id. at 136. Although the record also indicates that "considerable evidence suggests that decreased reproductive success" and "changes in adult survival may also have contributed to the decline," S6-249 at 82, 83, NMFS's focus on the telemetry data for pups and juveniles is not arbitrary and capricious.

Defendants also argue that an evaluation of the telemetry data should focus on only the winter months. The 2001 BiOp states that the winter months are the most important for Steller sea lions because of harsher environmental conditions and increased Steller sea lion metabolic needs. S8-549 at 78, 94-95. However, the 2001 BiOp also states that Steller sea lions "need more or less continuous access to food resources throughout the year," and that "food availability is surely critical year round, although it may be particularly important for young animals and pregnant-lactating females in the winter."[17] Id. at 94, 95. Furthermore, the 2001 BiOp explains that the increased number of at-sea locations for pups and juveniles in the summer is likely the result of the fact that "most of the pups/juveniles instrumented during the fall and winter were still nursing," and therefore "would be less likely to travel far from shore." Id. at 140. The at-sea location data for pups and juveniles in summer is therefore more representative of foraging than the winter data because "by spring and early summer, some of these animals are weaned and they begin to forage on their own further from shore." Id. Thus, the filtered data actually demonstrates that the 3-10 nm zone and the 10-20 nm zone are of more or less equal foraging importance for the most critical population segment, in contrast to NMFS's conclusion that the 3-10 nm zone is of "high" concern and the 10-20 nm zone is of "low to moderate" concern. Id. at 145, Table 5.2. Therefore, the conclusion that the filtered data equally supports the zonal approach is not rationally related

[17] The record indicates that reproduction places increased metabolic demands on adult females, which winter conditions exacerbate. S8-549 at 94; S6-249 at 81.

to the data the expert scientists presented.[18]

Defendants argue that if either the unfiltered or filtered data supported the conclusions the 2001 BiOp reached, the Court would not have to find that NMFS's decision was not rational. Transcript, docket no. 571, at 47. However, NMFS is required to use the "best available scientific and commercial data." S8-549 at 142. Given that the agency recognized that the unfiltered data contained a "confounding" bias, id. at 139, NMFS's reliance on unfiltered telemetry data to support its conclusions would be arbitrary and capricious. Agency action is arbitrary and capricious where the agency has failed to "articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'" Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). Although "an agency must have discretion to rely on the reasonable opinions of its own qualified experts," Marsh v. Or. Natural Resources Council, 490 U.S. 360, 378 (1989), the presumption of agency expertise can be rebutted if the decision is not reasonable. See Defenders of Wildlife v. Babbitt, 958 F. Supp. 670, 679 (D.D.C. 1997). In this case, the experts stated that the unfiltered data contained a significant bias and in order to better equate the location data with foraging, the experts filtered the data. The filtered data demonstrates that Steller sea lions use the 3-10 nm zone and the 10-20 nm zones almost equally. S8-549 at 142, Table 5.1b. NMFS has failed to provide any rational

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[18] The filtered data for the most important Steller sea lion population group during the season that they are foraging demonstrates that they spend approximately equal amounts of time in the 3-10 nm zone and the 10-20 nm zone. S8-549 at 142, Table 5.1b.

ZONE	PUPS/JUVENILES (summer)
0 -3 nm	22.1 %
3-10 nm	14.9 %
10-20 nm	12.6%
beyond 20 nm	50.4%

explanation for its choice to ignore significant portions of the filtered data. NMFS has also failed to provide any rational connection between the filtered data and its implementation of the zonal approach.

The Court notes that when the percentage of time the Steller sea lion spends in the 0-3 nm zone is added to the time spent in the 3-10 nm zone, the filtered data demonstrates that the 0-10 nm zone is approximately three times more important than the 10-20 nm zone. Nonetheless, this sum does not support the differing ranking of importance of the 3-10 nm and 10-20 nm zones, id. at 145, Table 5.2; id. at 170 (describing the 3-10 nm zone as "one of the highest areas of concern for foraging Steller sea lions" and the 10-20 nm zone as "of low to moderate concern"), because the relevant filtered data shows that Steller sea lions use the 3-10 nm and the 10-20 nm zones almost equally. See supra note 18; S8-549 at 142, Table 5.1b. Thus, NMFS cannot rationally rely on the difference in the ranking of the zones in developing the Amended RPA, which allowed fishing in portions of the 10-20 nm zone but continued to prohibit fishing in the 3-10 nm zone.

Accordingly, the Court finds that the 2001 BiOp's no jeopardy and no adverse modification conclusions are arbitrary and capricious because they rely on the zonal approach to management which is not rationally connected to the data presented.[19]

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[19] Because the Court concludes that the zonal approach is not rationally connected to the telemetry data presented, the Court also finds that the DeMaster Study, S8-650, cannot independently support the Amended RPA. The DeMaster Study attempted to make a qualitative comparison between the FMP BiOp RPA and the Amended RPA in order to determine whether they were roughly equivalent in their effect on the Steller sea lion population. S8-549 at 161; S8-650 at 2. The DeMaster Study compared the FMP BiOp worst case scenario (0.77% annual decrease) with a more realistic scenario under the FMP BiOp (0.05% annual increase), and with the projected scenario under the Amended RPA (0.25% annual decrease). S8-549 at 156, Table 5.6. One of the basic assumptions of the study was that different areas of critical habitat were more important than others. Id. at 161-62; S8-650 at 12.

The Court notes that because the FMP BiOp found that a 0.7% estimated annual decrease did not cause jeopardy or adverse modification, S6-249 at 300, it was rational for the 2001 BiOp to conclude that a lower estimated annual decrease of 0.25% would not cause jeopardy or adverse modification. S8-549 at 162 ("Given the uncertainty in the available data and the qualitative nature of this analysis, . . . the difference in the expected trajectories is insignificant and . . . it is reasonable to conclude that the [RPA and Amended RPA] are approximately equal in avoiding adverse effects with Steller sea lions."). Plaintiffs cannot demonstrate that the no

2. Failure to Analyze the Likely Effects on Steller Sea Lions, Their Prey, and Their Critical Habitat Under the Amended RPA.

In the alternative, even if the zonal approach were rationally related to the telemetry data presented, NMFS must still analyze the likely effects of the Amended RPA on Steller sea lions, their prey, and their critical habitat before reaching a no jeopardy or adverse modification conclusion in the 2001 BiOp. The Court finds that Defendants failed to perform the appropriate analysis of the Amended RPA before reaching the no jeopardy and no adverse modification conclusions in the 2001 BiOp. Plaintiffs concede that the FMP BiOp addressed the relevant factors under the ESA for determining whether the fisheries would adversely affect the Steller sea lion's critical habitat or jeopardize the Steller sea lion's continued existence. See, e.g., S6-249 at 232-33 (setting out seven questions to be answered by the BiOp in order to evaluate the effect of fisheries on Steller sea lion critical habitat). Plaintiffs contend that in evaluating the Amended RPA, NMFS failed to properly conduct the necessary seven-question analysis set forth in the FMP BiOp at 232-33.[20] Defendants argue that they were not required to duplicate the seven-question analysis in the 2001 BiOp. Defendants also argue that the 2001 BiOp incorporates the findings of the FMP BiOp and that sufficient analysis exists in the administrative record to support the Amended RPA. See

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jeopardy or adverse modification conclusion of the 2001 BiOp is arbitrary and capricious based on the choice of a less conservative alternative.

[20] The seven questions in the FMP BiOp at 232-233 are:
(1) Do Steller sea lions forage on the target fish species?
(2) Do Steller sea lions forage on the target fish species at a rate of at least 10% occurrence?
(3) If yes to Number 2, does the size of Steller sea lion prey overlap with the size caught by commercial fisheries?
(4) If yes to Number 2, does the fishery overlap spatially with the area used by Steller sea lions to forage on this species?
(5) If yes to Number 2, [d]oes the fishery operate at the same time Steller sea lions are foraging on the fish species?
(6) If yes to Number 2, [d]oes the fishery operate at the same depth range that Steller sea lions are using to forage on the fish species?
(7) If yes to 1-6, does that fishery operate in a spatially or temporally compressed manner in Steller sea lion critical habitat?

Defendant-Intervenor's Reply, docket no. 560, at 19 ("[The 2001 BiOp] did not abandon or ignore the analyses performed in the FMP BiOp, but neither did it re-invent the wheel, as Plaintiffs seem to think it should have."); Federal Defendants' Reply, docket no. 558, at 12 ("Plaintiffs' 'lead' argument then simply boils down to a request that NMFS restate the analyses and conclusions that it had already presented in the FMP BiOp even though the 2001 BiOp incorporates, without supplanting, the FMP BiOp.").

a. Was the Method NMFS Used to Determine No Jeopardy and No Adverse Modification Proper Under the ESA?

Plaintiffs argue that Defendants were required to answer the seven questions, especially the last one because it is weighted twice as much as the others, before reaching a no jeopardy or no adverse modification conclusion. S6-249 at 232-33; Transcript, docket no 571, at 14. Defendants claim that the purpose of the questions was to look at *overlap* in time, space, and species of concern to Steller sea lions, and that the narrow proposed action of the 2001 BiOp dealt only with three prey species for which the seven-question analysis had already been done in the FMP BiOp. Transcript, docket no. 571, at 64-65. Thus, Defendants argue it was logical not to go back and reevaluate. Id. at 64.

The purpose of the seven-question test set forth in the FMP BiOp was "to determine which fisheries may be adversely affecting Steller sea lions and whether or not those affects [sic] are likely to jeopardize their continued existence or adversely modify their critical habitat." S6-249 at 232. Thus, Defendants' argument that these seven questions went only to the issue of overlap is faulty. However, the ESA does not require that Defendants conduct this particular seven-question analysis, as long as there is some analysis to support the conclusions drawn in the 2001 BiOp. The Court notes that NMFS's use of a three-step inquiry in the 2001 BiOp to determine whether the proposed action would cause jeopardy to Steller sea lions is an alternative method which satisfies the ESA requirements regarding the

analysis required regarding jeopardy.[21] S8-549 at 16, 132, 178. For the inquiry regarding adverse modification of critical habitat, NMFS engaged in "a more qualitative analysis using all available scientific and commercial information." Id. at 16. The Court finds that this method of evaluating adverse modification is also sufficient under the ESA, as long as NMFS explains its analysis as it did in the 2001 BiOp. Id. at 182-84. The Court must therefore determine whether the *content* of the analysis in the 2001 BiOp, coupled with the previous analysis in the FMP BiOp that the 2001 BiOp incorporated, is sufficient under the ESA to support the conclusions drawn in the 2001 BiOp.

b. Does Sufficient Analysis Exist in the Administrative Record to Support the No Jeopardy or Adverse Modification Conclusion of the 2001 BiOp?

The 2001 BiOp is limited to a review of the Amended RPA, which was necessary because of the jeopardy and adverse modification conclusions of the FMP BiOp. The Council found that the Amended RPA could replace the FMP BiOp RPA because "given the new biological information on Steller sea lions, . . . there were other possible ways to avoid jeopardy and adverse modification for sea lions and their habitat." Id. at 18. Initially, in order to avoid the effects of competition between the fisheries and the Steller sea lion for prey, the FMP BiOp set forth an RPA that required sections of critical habitat from 0-20 nm to be closed year-round to directed fishing for pollock, Pacific cod, and Atka mackerel. S6-249 at 274.[22] The major change presented by the Amended RPA and challenged by Plaintiffs is the increase of allowable fishing in the 10-20 nm zone of critical habitat. The specific re-

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[21] This three-step inquiry required NMFS to: (1) Identify the probable direct and indirect effects of the proposed action on the action area, (2) Determine whether reductions in Steller sea lion reproduction, numbers, or distribution would reasonably be expected, and (3) Determine if any reductions in Steller sea lion reproduction, numbers, or distribution could be expected to appreciably reduce the Steller sea lion's likelihood of surviving and recovering in the wild. S8-549 at 16, 178.

[22] The RPA closed areas where "approximately 16% of GOA pollock and 28% of GOA Pacific cod catches, 23% of EBS pollock, 24% of EBS Pacific cod, and 2% of BSAI Atka mackerel, 53% of AI pollock, 21% of AI Pacific cod, and 44% of BSAI Atka mackerel catches have occurred [from 1998-1999]." S6-249 at 277.

openings in the 10-20 nm zone of critical habitat that the Amended RPA contemplates are outlined in Table 3.1 of the 2001 BiOp. S8-549 at 39-42. Table 5.4 presents a comparison of the FMP BiOp RPA measures and the Amended RPA. Id. at 153.

Plaintiffs argue that because NMFS provided no explanation of the catch levels occurring in critical habitat, the Court cannot find that NMFS's determination of no jeopardy and no adverse modification in the 2001 BiOp was not arbitrary and capricious. Transcript, docket no. 571, at 87-88. The FMP BiOp concluded that the amount of fishing within critical habitat caused adverse modification of critical habitat and jeopardy to the continued existence of Steller sea lions, partly because of nutritional stress. S6-249 at 251, 268, 270. The FMP BiOp did not, however, consider whether nutritional stress was due to over-fishing within the 0-10 nm zone or the 10-20 nm zone because it was treating all areas of critical habitat alike, since the zonal approach to management had not been developed. See, e.g., id. at 274. Because the FMP BiOp did not utilize a zonal approach in concluding that fishing within critical habitat caused jeopardy and adverse modification, if all of the fishing within critical habitat were occurring within the 10-20 nm zone, the Amended RPA would not eliminate the cause of the nutritional stress.[23] The Amended RPA will not avoid jeopardy and adverse modification unless it actually alters fishing patterns within critical habitat. The administrative record contains no information as to whether the Amended RPA will alter the fishing patterns that were found to cause jeopardy and adverse modification in the FMP BiOp. The FMP BiOp notes that under the 1999 fishing regulations, the "portion of critical habitat that remained open to the pollock fishery consisted primarily of the area between 10 and 20 nm from rookeries and haulouts in the GOA and parts of the eastern Bering Sea special foraging area." Id. at 256. In addition, the 1999 fishing regulations maintained the 10 nm trawl exclusion zone around important rookeries and haulouts, reduced the amount of

[23] Fishing in the 10-20 nm zone may impact Steller sea lions foraging in the 0-10 nm zone because prey migrate back and forth across these zones. S8-549 at 143. This is sometimes referred to as the "edge effect." The 2001 BiOp does not evaluate the edge effect.

allowable catch of Atka mackerel that could come from within critical habitat, and closed portions of critical habitat between 10-20 nm. Id. at 255. The FMP BiOp determined that these fisheries, which permitted some level of fishing in the 10-20 nm zone, reduced the likelihood of Steller sea lion foraging effectiveness and reduced the likelihood of Steller sea lion survival. Id. at 258. The Amended RPA neither assesses the level of fishing it allows in this zone of "low to moderate" importance, nor explains how it will change the negative impact on Steller sea lions that the FMP BiOp found.

Although the 2001 BiOp compares the RPA to the Amended RPA, the 2001 BiOp does not compare the Amended RPA to the FMP previously evaluated in the FMP BiOp. The 2001 BiOp presents no information regarding where fishing takes place in critical habitat or where prey are located within critical habitat. Thus, there is no information known as to how much the Amended RPA will reduce fishing within critical habitat. See S6-249 at 277 (describing the reductions in fishing that will occur because of closures of critical habitat under the FMP BiOp RPA). Although the 2001 BiOp presents new data regarding where Steller sea lions are located, an evaluation of where Steller sea lions forage does not present a complete picture of the effects of the Amended RPA. Fishing outside the 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. For example, the 2001 BiOp concluded that "the use of closure areas in the most important foraging zones alleviates the need for small catch limits in areas outside of 10 nm from shore that were previously considered to be integral to the RPA in the FMP biological opinion." S8-549 at 143. However, there is no analysis of how the newly opened fishing areas will impact the "most important foraging zones." Id. Unless and until it is determined that it is fishing within the 0-10 nm zone that is the cause of the nutritional stress, or the agency explains in the administrative record why the proposed modifications in the 10-20 nm zone will not cause jeopardy or adverse modification, any conclusion that closures of only the 0-10 nm zone will remedy the jeopardy and adverse modification found in the FMP BiOp

is arbitrary. Therefore, even if the Court found that the 2001 BiOp correctly evaluated the differing importance of the zones of critical habitat, nowhere does the 2001 BiOp evaluate the differing effect of the current and proposed level of fishing on those zones of critical habitat and the Steller sea lions. Without an analysis of how the fishing within critical habitat impacts the differing zones of importance, or an explanation *in the record* of why such an analysis was not required, it is not possible for the Court to find that the agency has "articulated a rational connection between the facts found and the choice made." Friends of Endangered Species, Inc. v. Jantzen, 760 F.2d 976, 982 (9th Cir. 1985) (quoting Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 105 (1983)). In short, the 2001 BiOp does not contain a viable analysis of cause and effect, which is exactly what the ESA requires. This failure is fatal to the 2001 BiOp.

Defendant-Intervenors Pacific Cod Freezer Longliners argue that the hook-and-line gear method of fishing is passive and does not result in any concentrated removal of prey so as to jeopardize Steller sea lions or adversely modify their critical habitat. Although evidence in the administrative record supports the position that hook-and-line fishing may be less likely to cause localized depletion, there is a lack of sufficient scientific evidence to support a conclusion that the hook-and-line fishery does not cause jeopardy or adverse modification. S6-249 at 215; S8-549 at 148-49. The 2001 BiOp states:

> These data suggest that the hook-&-line fishery in the BSAI Pacific cod fishery is more dispersed than the trawl fishery, and may be less likely to cause localized depletions of prey for Steller sea lions. However, to stress again, the critical link between fisheries removals . . . and the effects on sea lions is so poorly understood that we cannot un-equivocally [sic] say that these gear types do or do not adversely affect Steller sea lions.

S8-549 at 149. Thus, the Court cannot find that the hook-and-line fishery does not cause jeopardy to Steller sea lions or adverse modification of Steller sea lion critical habitat. Moreover, NMFS did not analyze the hook-and-line fishery as a separate fishery, and it is beyond the Court's role to conduct such an analysis.

Accordingly, in the alternative, the Court concludes that the 2001 BiOp's finding of

no adverse modification of critical habitat and no jeopardy to the continued existence of Steller sea lions is arbitrary and capricious because the necessary analysis of the impact of the Amended RPA on Steller sea lions, their prey, and their critical habitat was not performed.

For the foregoing reasons the Court GRANTS Plaintiffs' Motion for Summary Judgment and DENIES Defendants' Motion for Summary Judgment as to Claims Eight and Nine of the Supplemental Complaint.

IV. CONCLUSION

For the foregoing reasons the Court GRANTS Plaintiffs' Motion for Summary Judgment as to Claims Eight and Nine and DENIES Plaintiffs' Motion for Summary Judgment as to Claim Ten, docket no. 544. For the same reasons the Court DENIES Defendants' and Defendant-Intervenors' Motions for Summary Judgment as to Claims Eight and Nine and GRANTS Defendants' and Defendant-Intervenors' Motion for Summary Judgment as to Claim Ten, docket nos. 551, 553.

The Court REMANDS the 2001 BiOp to the National Marine Fisheries Service for further action in compliance with this Order.

IT IS SO ORDERED.

DATED this 17th day of December, 2002.

THOMAS S. ZILLY
UNITED STATES DISTRICT JUDGE