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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ALASKA WILDERNESS LEAGUE, *et al.*,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Case No. 1:08-cv-00004-RRB
	)	
SALLY JEWELL, Secretary of the Interior, *et al.*,	)	
	)	
Defendants,	)	
	)	
and	)	
	)	
SHELL GULF OF MEXICO, INC., CONOCOPHILLIPS COMPANY, STATE OF ALASKA, and STATOIL USA E&P INC.,	)	
	)	
Intervenor-Defendants.	)	
	)	

PLAINTIFFS' OPENING BRIEF

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INTRODUCTION

This case challenges the Secretary of Interior's decision to offer offshore oil and gas leases in approximately 29.4 million acres of the Chukchi Sea off the northern coast of Alaska. The Secretary initially held Lease Sale 193 on February 6, 2008, and the decision has now twice been remanded to the Bureau of Ocean Energy Management (Bureau) for violating the National Environmental Policy Act (NEPA). Following a remand from this Court, the Bureau prepared a supplemental environmental impact statement (SEIS), and after reconsidering the sale in light of the SEIS, the Secretary on October 3, 2011, affirmed the lease sale in its entirety and without alteration. Following a second remand from this Court in light of a core NEPA violation identified by the Ninth Circuit, the Bureau prepared a second supplemental environmental impact statement (Second SEIS), and after reconsidering the sale in light of the Second SEIS, the Secretary on March 31, 2015, again affirmed the sale in its entirety.

Plaintiffs[1] in this case challenge the lawfulness of the Second SEIS and the Secretary's March 31, 2015, decision to reaffirm the lease sale. The Second SEIS fails in two key ways to analyze the lease sale decision in its current, 2015, context, and as a result, the Secretary's decision to reaffirm the lease sale again violates NEPA.

Despite much new data that has been developed since the original lease sale decision demonstrating the biological importance of offshore habitat in and around the lease area—including the Hanna Shoal region, newly identified by the Bureau as a "biological oasis"—the Bureau stuck to considering only the coastal deferral alternatives it had developed almost a decade ago for the original lease sale when the importance of offshore areas was largely

[1] Friends of the Earth, which along with its members will suffer injuries in fact traceable to Federal Defendants' actions that would be redressed by a favorable decision of this Court, Ex. 21 at 3-5, ¶¶ 9-13; Ex. 22 at 5-9, 10-11, ¶¶ 14-23, 26-27, has joined this litigation. Doc. 308-1.

unknown. Rejecting commenters' proposals, the Bureau refused to develop any alternatives that would minimize effects in newly identified offshore areas of significance, offering excuses that do not bear scrutiny. The Bureau's failure violates NEPA's core requirement to develop and compare alternatives in an environmental impact statement.

The Bureau also failed to consider the lease sale's effects on global climate change despite a new scientific consensus that most fossil fuels—particularly Arctic fossil fuels and undiscovered resources like those in the Chukchi Sea—must remain undeveloped to meet climate goals and avoid the worst effects of global warming. The Bureau's failure to assess the lease sale in the context of this new information ignored an important aspect of the decision's effects and does not constitute the "reasonable discussion" of the lease sale's impacts on climate change that NEPA requires.

For all these reasons, the Court should remand the decision to the Secretary and vacate the unlawfully issued leases.

FACTUAL BACKGROUND

I. THE BUREAU'S DEVELOPMENT OF LEASE SALE ALTERNATIVES

A. In the Second SEIS, the Bureau considered the same alternatives it developed nearly a decade ago for the original lease sale

In the Second SEIS, the Bureau considered the same four alternatives contained in the 2007 EIS and 2011 SEIS: (I) an action alternative to include all lease blocks in the Chukchi Sea planning area, which deferred leasing from a coastal corridor extending to about 25 miles from the coast; (II) a "no action" alternative; (III) an action alternative that excluded leasing from coastal corridor extending to about 60 miles from the coast; and (IV) an action alternative that excluded leasing from a coastal corridor extending variably, depending on location, to 25 to 50 miles from the coast. Ex. 18 at 9-10; Ex. 3 at 6-7; Ex. 4 at 5-6; Ex. 2 at 7.

The Bureau developed these four alternatives nearly a decade ago, during the 2005-06 scoping process for the 2007 EIS. Ex. 1 at 9-10. At that time, information about the Chukchi Sea environment, habitat, and marine life was starkly limited. Ex. 2 at 27 (describing the "paucity of information available on marine mammal ecology, and specifically on habitat use patterns"); *id*. at 30, 33 (IV-269, IV-274) (noting "the lack of data on marine mammal distributions and habitat use in offshore areas of the Chukchi Sea"); *see generally* Doc. 164 at 17 (noting "dozens if not hundreds of entries indicating a lack of information about species/habitat, as well as a lack of information about effects of various activities on many species" in the 2007 EIS). At the time, the agency concluded for key species such as bowhead whales, for example, "[r]ecent data on distribution, abundance, or habitat use in the Chukchi Sea Planning Area are not available," Ex. 2 at 18, "[d]ata are limited on the bowhead fall migration through the Chukchi Sea," *id.* at 14, "major questions about bowhead whale feeding . . . remain to be answered," *id.* at 15, and "data are not available sufficient to characterize the current seasonal and temporal use of the Chukchi Sea," *id.* at 24. For beluga whales, it noted "[l]ate-summer distribution and fall-migration patterns are poorly known, wintering areas are effectively unknown, and areas that are particularly important for feeding have not been identified." *Id.* at 20.

At the time, given this substantial lack of information, and in particular for areas in the open ocean, the Bureau designed its alternatives to offer varying levels of protection for coastal areas. Based on the limited available data, these areas were identified as containing important habitat, including critical habitat for Endangered Species Act-listed spectacled and Steller's eiders, areas where subsistence hunting activities for bowhead, beluga, and walruses occur, and the spring lead system through which endangered bowhead whales and other species migrate in

spring. *See* Ex. 1 at 6; Ex. 2 at 7 (noting that deferral areas "attempt to reduce potential impacts to subsistence hunting . . . as well as various wildlife species and associated habitats"); *id.* at 9 (stating that the coastal deferral alternatives encompass areas where a number of wildlife species are "concentrated and particularly vulnerable to disturbance, such as calving areas, molting and brooding areas, and feeding areas"). Even so, the Bureau's ability to distinguish effects among the various coastal protection alternatives was severely limited by missing information. For marine mammals, fish, and birds, not listed under the Endangered Species Act, the limited available information allowed the EIS to compare the alternatives only generally and not at the species level. *Id.* at 29, 30, 31, 33. The comparison consisted of a conclusion for each group that larger coastal deferral areas would provide "the greatest net resource benefits" because they "would move sources of potential adverse effects further away from important . . . habitats," and this increased distance "conceivably would decrease the percent chance of spilled oil contact, increase weathering of spilled oil prior to contact, and increase available spill-response time." *Id.* The species-level comparison of alternatives for ESA-listed whales and birds also concluded that the larger the deferral area, the greater the reduction of effects, based on the general observations that the deferral corridors would move industrial noise further from coastal habitat areas and allow more time for response in the event of an oil spill. *See id.*

In the Second SEIS, the Bureau took the existing 460 leases as the starting point for its analysis. Ex. 18 at 9-10. All but five of the existing lease sale 193 leases are within the area encompassed by the action alternatives (alternatives I, III, and IV). *Id.*; *see also id.* at 58 (noting alternatives I and IV are "effectively the same"). As a result, the alternatives in the Second SEIS only provided a choice among two options as a practical matter for addressing the existing leases: affirming all (alternatives I and IV) or about 99 percent (alternative III) of the existing

leases, on the one hand, and affirming none of the leases (alternative II), on the other. *Id*. at 9-10.

B. Since the Bureau developed the original coastal deferral alternatives, significant new information has been developed about the potential importance of offshore areas in the Chukchi Sea

Although an understanding of the Chukchi Sea ecosystem is still substantially incomplete, recent data demonstrate that there may be a number of additional offshore areas that deserve attention beyond the Bureau's original coastal deferral areas. *See, e.g.*, Ex. 18 at 79, 114 (identifying, for example, the Herald Shoal polynya as an area "important to ringed and bearded seals" and mapping the shoal's location); *id.* at 18 (same); *id.* at 102, 114 (stating "key habitats to protect for walruses would include the Herald and Hanna Shoal polynyas" and mapping areas); *id.* at 69, 114 (identifying an offshore area as an important murre molting area and mapping the area); *id.* at 78, 114 (identifying Point Hope offshore area as important to gray and humpback whales and mapping the area); *id.* (identifying the central Chukchi Sea as a bowhead resource area).

One example of an offshore area identified by new information as potentially important for a variety of marine life is the Hanna Shoal region, an expansive offshore area in the center of the existing leases. The Bureau has identified the Hanna Shoal region, as a "biological oasis," "biological hot spot," and "area of biological significance," "that is important to a diversity of marine mammals (especially walruses and bearded and ringed seals) and other fauna." Ex. 11 at 3. It has embarked on a multi-year Hanna Shoal Ecosystem Study to obtain information about the region. *Id.* at 3; *see id.* at 2 (map showing Hanna Shoal study areas); Ex. 18 at 103. As the Bureau recognized in the Second SEIS, new studies suggest that the Hanna Shoal area provides important habitat for walruses, bowhead whales, gray whales, seals, and marine birds. Ex. 18 at 11-12, 42-43, 52, 54-55, 78, 101; *see also id.* at 133 (identifying that there is "new information

pertaining to the importance of Hanna Shoal to marine mammals"). Trawl surveys demonstrate that high benthic species diversity and abundance occurs between Hanna Shoal and the mouth of Barrow Canyon. *Id*. at 32, 36. The Hanna Shoal area also has a high diversity of demersal fish species. *Id*. at 36, 38. It newly has been identified by the Bureau as "important to bowhead and gray whale feeding," *id.* at 78, and also serves as prime foraging grounds for many top predators, including walruses, bearded and ringed seals, and sea birds. *Id.* at 42, 52, 54-55, 74, 99, 101.

The Hanna Shoal area is particularly important for walruses. As the Bureau recognized in the Second SEIS, recent data show that walruses rely on the region for foraging even to the point of commuting there long distances when forced to the coast in late summer during ice-minimum conditions. *Id.* at 54-55. Tens of thousands of walruses can reliably be found foraging in the region during summer months. 78 Fed. Reg. 35,364, 35,371 (June 12, 2013). The importance of the Hanna Shoal region to walruses has led the U.S. Fish and Wildlife Service to designate a core portion of the area as a walrus use area, Ex. 18 at 55, where it is "critical to minimize disturbance to walruses," 78 Fed. Reg. 35,371. The Marine Mammal Commission and National Marine Fisheries Service also have identified core areas in the region of heightened importance to walruses and other species, such as bearded and ringed seals. Ex. 18 at 55. The President recognized the importance of the region by issuing a memorandum this year withdrawing a smaller portion of the Hanna Shoal region from future leasing, which area overlaps with ten leases issued through the lease sale. Ex. 19 at 6-7.

The Second SEIS recognizes that routine oil and gas activities can have serious impacts on a variety of species that reside in the Chukchi Sea, including "severe" impacts to marine and coastal birds, and up to "long lasting and widespread" impacts to marine mammals. Ex. 18 at 3, 57. Large oil spills, of which "there is a 75% chance" if the leases are developed, could have

"severe" impacts on marine mammals, and birds, and "long lasting and widespread" impacts on fish. *Id.* As the Second SEIS describes, for example, the lease sale, particularly when combined with the effects of climate change, can have potential "population level" effects if activities disturb walruses foraging or disrupt their seasonal migration or distribution in offshore areas. *See id*. at 95-97. Walruses, the Second SEIS recognizes, are suffering adverse effects from climate change due to the melting of sea ice on which they depend for resting near foraging areas, among other things. *Id.* at 97. Walruses thus are spending more time in the water commuting from distant terrestrial haulouts to foraging grounds like the Hanna Shoal region. *Id.* Accordingly "walruses could be present in the vicinity of oil and gas activities in the Leased Area for a greater portion of the year, increasing the period of potential disturbance to individuals." *Id.* Because of the importance of the Hanna Shoal region in particular, the Second SEIS concludes activities in the region "have a greater likelihood of impacting walruses than activities occurring elsewhere." *Id* at 98.

C. Commenters urged the Bureau to include alternatives that would protect potentially important offshore areas, but the Bureau declined

Commenters, including Plaintiff groups, urged the Bureau to develop and analyze alternatives in the EIS that would protect areas of the Chukchi Sea recently identified as having important resources. Ex. 15 at 13; Ex. 18 at 146, 150-151; Ex. 16 at 2; Ex. 18 at 130.[2] For example, commenters recommended that the Bureau develop a set of alternatives that would offer different levels of protection for the resources in the Hanna Shoal region by excluding areas from leasing on the shoal itself, in species' travel corridors to and from the shoal, or in all areas where activity might affect resources in the Hanna Shoal region. Ex. 15 at 13.

[2] Several Plaintiffs also supported the no action alternative as the best approach to protecting the Chukchi Sea ecosystem and protecting the planet as a whole from the impacts of climate change. *See, e.g.*, Ex. 15 at 1-2.

Nevertheless, the Bureau refused to develop alternatives that would exclude leasing in areas in the Chukchi Sea that have recently been identified as biologically important. *See* Ex. 18 at 10-12. The Second SEIS stated that future mitigation measures which either the Bureau or other agencies could apply during site-specific environmental approvals will be sufficient to protect marine mammals. *Id*. at 11. The Bureau also stated that it was "unnecessary" to analyze an alternative that would protect Hanna Shoal resources because the Second SEIS included additional information about the region and impacts, which, it asserted, was sufficient to support a decision about leases in the Hanna Shoal region without including any new alternatives. Ex. 19 at 7; Ex. 18 at 11-12. According to the Bureau, adding an additional alternative would have resulted in "repetitive analysis." Ex. 18 at 12.

In the final Record of Decision, after completing the Second SEIS, the Bureau also rejected the idea of revising the final EIS to develop an additional alternative that would vacate the 10 existing leases wholly or partially located within the Presidential Hanna Shoal withdrawal area. Ex. 19 at 13 (ROD at 21). In addition to repeating the excuse that it could implement mitigation to address resource protection later, the Bureau justified its decision not to develop such an alternative for the reason that the limited alternative would not significantly change impacts to the Hanna Shoal. *Id.*

II. THE BUREAU'S ASSESSMENT OF CLIMATE CHANGE

A. The Bureau's analysis of the climate change effects of the lease sale in prior EISs was limited

The Bureau's prior analyses of the climate change effects of the lease sale focused on effects from greenhouse gas emissions from the engines on the ships and rigs that would conduct exploration and development activities in the Chukchi Sea, and described, predictably, minor climate change effects as a result. Ex. 2 at 34; Ex. 3 at 8-9. As described below, the Bureau for

the most part declined to examine in any detail the most significant potential impact of this decision on climate change—the downstream or end-use impacts of the lease sale, that is, the effects of the greenhouse gases produced when the potentially large volume of oil and gas developed under the sale is consumed and burned. The limited assessment it did of this impact focused on how oil from the lease sale would affect energy markets. In other words, the agency looked at whether it could predict how the increase in supply to oil and gas markets from the lease sale might change the price or demand for oil and gas, and thereby increase the rate at which fossil fuels were consumed and burned, and, ultimately, change the rate at which greenhouse gases would be released into the atmosphere. Initially, the agency's analysis of this question suggested the lease sale would not change total emissions, but in the supplemental EISs the agency has asserted that either the larger climate impacts need not be examined at all or that the market predictions methodologies were too speculative.

The Bureau's original EIS addressed greenhouse gas emissions from combustion of the lease sale's oil as a cumulative impact of the sale. Ex. 2 at 34. The EIS did not describe any detailed analysis or modeling done by the agency. The EIS only included a few sentences stating that the increase in supply resulting from the lease sale would not affect aggregate oil consumption or change, therefore, greenhouse gas emissions from oil consumption, because "the level of oil consumed in the United States, with or without this Alternative, likely would not change" and "[i]f Alaska energy sources were not to be developed in the future, resources would have to be produced in other areas of the globe[, so] [t]he impacts from greenhouse gas emissions would be very similar, regardless of the location of the energy source." *Id.* As a result, based only on emissions from equipment in the Chukchi Sea conducting exploration and

production activities, the EIS concluded that the contribution to climate change from the lease sale would be "minor." *Id.* Natural gas emissions were not addressed.

In the 2011 SEIS, on the question of the larger climate impacts, the Bureau continued to focus on the manner in which oil and gas supplied from the lease sale would affect markets, but in this EIS, rather than develop or restate its conclusion that no change was expected in overall consumption, the agency concluded that no reliable methodologies existed to estimate the response of oil and gas markets to new supplies. Ex. 3 at 7b-7c. It additionally stated that the burning of oil and gas for energy is not a reasonably foreseeable or proximate consequence of this lease sale under NEPA and therefore the larger climate impacts of producing oil and gas from this lease sale need not be addressed. *Id.*

In early 2012, this Court addressed Plaintiffs' challenge, Doc. 252 at 8, ¶¶ 39-44, to the Bureau's analysis in the 2011 SEIS of the lease sale's effects on climate change, Doc. 269 at 4. The Plaintiffs argued that NEPA does require the agency to examine the effects on climate change of the potentially large volume of oil and gas that could be produced and consumed as a result of the lease sale and argued, based on evidence submitted to the agency during the SEIS process, that effective methodologies did in fact exist and were being used by other agencies to assess the larger, downstream impact on climate change of decisions that could affect consumption of oil and gas. Doc. 249 at 37-47. This Court rejected the Bureau's argument that the climate effects of burning lease sale oil and gas do not warrant NEPA analysis, holding that NEPA requires the Bureau to engage in a "reasonable discussion" in the lease sale EIS of the effects on climate change of oil and gas produced as a result of the lease sale. Doc. 269 at 4. It also held, however, that the Bureau had satisfied this standard, finding reasonable the agency's initial conclusion that there would be no net effect on climate change from burning lease sale oil

and gas and concluding that the dispute about the reasonableness of the agency's conclusion that it could not usefully model market effects was "irrelevant." Doc. 269 at 4.

B. Significant new information directly relevant to the Bureau's assessment of the climate impacts of the lease sale has been developed since the prior EISs

There has been a major shift in the scientific understanding of how fossil fuel extraction projects affect climate change since the Bureau completed the EIS and SEIS. There now is a new paradigm for assessing these effects based on an overall atmospheric "carbon budget."

The new analysis starts from the well-established scientific understanding that the global increase in temperature due to greenhouse gas emissions must be capped at 2 degrees Celsius to avoid unmanageable climate change consequences. This understanding is enshrined in an international agreement signed by the United States and most other countries. *See* Copenhagen Accord, UNFCCC, Dec. 7-19, Decision 2/CP.15, 15th sess. (2009) at ¶ 1 ("recognizing the scientific view that the increase in global temperature should be below 2 degrees Celsius" relative to pre-industrial temperatures to "stabilize greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system") ("Copenhagen Accord"); *id.* at ¶ 2 ("agreeing that deep cuts in global emissions are required according to science" to meet this goal).[3]

In 2012, the International Energy Agency, an international organization made up of 28 member countries, including the United States, and established to "provide authoritative research

[3] The Copenhagen Accord was signed as part of the United Nations Framework Convention on Climate Change, which is "a nonbinding agreement among 154 nations to reduce atmospheric concentrations of carbon dioxide and other greenhouse gases for the purpose of 'prevent[ing] dangerous anthropogenic [*i.e.*, human-induced] interference with the [Earth's] climate system.' S. Treaty Doc. No. 102–38, Art. 2, p. 5, 1771 U.N.T.S. 107 (1992). The Senate unanimously ratified the treaty." *Massachusetts v. EPA.*, 549 U.S. 497, 509 (2007) (alterations in the original) (footnote omitted). The United States has "commit[ted] to implement" the Copenhagen Accord's "quantified economy-wide emissions targets for 2020." Copenhagen Accord at ¶ 4.

and analysis on ways to ensure reliable, affordable and clean energy for its" members, Ex. 5 at 2, concluded there is a limit to the amount of fossil fuels that can be developed if the world is to remain within the 2 degree Celsius cap. Based on an assessment of global carbon reserves, the agency concluded that "[n]o more than one-third of proven reserves of fossil fuels can be consumed prior to 2050 if the world is to achieve the 2 °C goal." *Id.* at 5.

In late 2014, this analysis was expanded and endorsed by the Intergovernmental Panel on Climate Change, the "multinational scientific body organized under the auspices of the United Nations," *Massachusetts v. EPA.*, 549 U.S. 497, 508 (2007), to assess climate change. In the fall of 2014, the Panel published a comprehensive synthesis of the latest worldwide scientific consensus on climate change, called the Climate Change 2014 Synthesis Report. *See* Ex. 6. The synthesis describes the recent scientific consensus that there is an overall limit to the amount of carbon dioxide that can be released into the atmosphere to stay within the 2 degree Celsius warming cap. *Id.* at 10-11. It calculates that emissions would need to be limited to about 2,900 gigatons of CO_2 ($GtCO_2$) since 1870 to have a reasonable chance of staying within the cap. *Id.* By 2011, about 1,900 $GtCO_2$ had already been emitted. *Id.* at 11. Thus, the report concludes, to provide a 66 percent chance of limiting warming to 2 degrees Celsius, additional carbon dioxide emissions must be limited to 1,000 $GtCO_2$. *Id.*.

The report estimates that there are about 3,670-7,100 $GtCO_2$ in fossil fuel "reserves" remaining in the ground, which it describes as quantities of fossil fuels able to be recovered under existing economic and operating conditions. *Id.* at 12 (Table 2.2, n. f); *id.* (noting "resources," by contrast, are quantities of fossil fuels where economic extraction is potentially feasible). As the report notes, this volume of reserves is 4 to 7 times the amount that can be burned to have a 66 percent chance of remaining within the 2 degrees Celsius warming goals,

with the amount of resources much larger still. *Id.* at 10-11. One of the expert reports feeding into the Panel's synthesis explained that to meet "[t]he emissions budget for stabilizing climate change at 2 °C above pre-industrial levels . . . only a small fraction of reserves can be exploited." Ex. 7 at 4.

The Panel's synthesis analysis recently was refined further. In January 2015, the scientific journal *Nature* published a study entitled *The geographical distribution of fossil fuels used when limiting global warming to 2 °C.* Ex. 17 at 4. The study identifies which fossil fuels must remain undeveloped to improve the chances of remaining below the warming cap. It quantifies the regional distribution of fossil-fuel reserves and resources, and through modeling a range of scenarios based on least-cost climate policies, identifies which reserves and resources will not be burned between 2010 and 2050 if the world efficiently complies with the 2 degrees Celsius limit. *See id.* at 4-7. It concludes that "a stark transformation in our understanding of fossil fuel availability is necessary," because "large portions of the reserve base and an even larger proportion of the resource base should not be produced if the temperature rise is to remain below 2 °C." *Id.* at 7. Thus, expanding on the prior analyses' conclusion that development of already-existing reserves would far exceed the cap, let alone development of the more speculative category of resources, the study concludes that a commitment to meet the 2 degrees Celsius limit would "render unnecessary continued substantial expenditure on fossil fuel exploration, because any new discoveries could not lead to increased aggregate production." *Id.* at 4. Specifically, the study determines that "all Arctic resources should be classified as unburnable," because "development of [oil and gas] resources in the Arctic . . . [is] incommensurate with efforts to limit average global warming to 2 ° C." *Id.* at 7, 4.

C. The Bureau did not evaluate the climate effects of burning lease sale oil and gas or address new information about climate effects in the Second SEIS

In preparing the Second SEIS, the Bureau did not analyze the climate change effects of oil and gas that could be produced as a result of the lease sale. It briefly described the climate effects of emissions from equipment operating on the leases themselves, such as drilling rigs and ships, *see, e.g.,* Ex. 18 at 18, 60-63, but, as it did in the 2011 SEIS, it omitted any discussion of the effects oil and gas produced and ultimately consumed as a result of the lease sale. The Bureau justified this omission, as it had in 2011, by stating no reliable methods exist for assessing whether lease sale oil and gas would affect energy markets and consumer behavior. *Id.* at 138-39. The Bureau also repeated its prior conclusions that NEPA does not obligate it to examine climate effects of burning lease sale fuels at all. *Id.*

Plaintiffs and others in their comments to the Bureau during the Second SEIS process described the new paradigm adopted by the scientific community for assessing the climate consequences of the lease sale. Ex. 15 at 5-10; Ex. 17; Ex. 18 at 144. They explained that the lease sale decision is a decision about where the country will obtain its future energy and how it will balance its energy needs with its climate commitments, and that the EIS must provide the decisionmaker and public with a context within which to conduct a full evaluation of those decisions. Ex. 15 at 6-10; Ex. 17. They explained to the Bureau the new information described above, its importance, and the new questions it raises about how the lease sale decision affects climate change. *See, e.g.*, Ex. 15 at 8-10; Ex. 17 at 1-2.

However, the Bureau largely ignored this new information. The Second SEIS does not engage in any new analysis of the climate impacts of lease sale oil and gas. It does not even mention the two degree cap, the Intergovernmental Panel on Climate Change synthesis report, or the recent *Nature* study, noting only that other United Nations' reports "provid[e] updates" on

climate science that "suggest[] that climate change is attributable to human activities that have altered atmospheric composition and caused climate variability beyond what can be explained by natural causes." Ex. 18 at 28. The Bureau dismissed comments describing the new scientific consensus in a single sentence, stating: "Recent papers advocating all undiscovered hydrocarbon deposits must remain undeveloped to avoid significant impacts and/or to meet climate change goals are noted." *Id*. at 139.

ARGUMENT

I. STANDARD OF REVIEW

The Administrative Procedure Act (APA) "provides the authority for . . . review of decisions under NEPA." *Lands Council v. McNair*, 537 F.3d 981, 987 (9th Cir. 2008) (en banc), *abrogated on other grounds by Winter v. Natural Res. Def. Council,* 555 U.S. 7, 22 (2008). The APA directs the reviewing court to "hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2). A decision would normally be arbitrary if the agency "entirely failed to consider an important aspect of the problem" or "offered an explanation for its decision that runs counter to the evidence before the agency." *Motor Vehicle Mfrs. Ass'n of the U.S. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *see also Native Vill. of Point Hope v. Jewell*, 740 F.3d 489, 499 (9th Cir. 2014).

II. THE BUREAU VIOLATED NEPA BY FAILING TO DEVELOP REASONABLE ALTERNATIVES THAT WOULD MINIMIZE EFFECTS IN NEWLY IDENTIFIED IMPORTANT OFFSHORE HABITAT AREAS

The Bureau's Second SEIS violates NEPA's core requirement to develop and compare reasonable alternatives that would minimize effects of the lease sale. Despite new information demonstrating the biological importance of offshore habitat in and around the lease area, including identification of a biological oasis in the central lease sale area called the Hanna Shoal

region, the Bureau continued to analyze in the Second SEIS only the nearly decade-old coastal deferral alternatives it developed for the original lease sale EIS, even though those alternatives were based on a virtual absence of data about offshore areas in the Chukchi Sea and effectively provided only an all-or-noting choice in the Second SEIS to affirm all leases or cancel them all. The Bureau's refusal to develop any alternatives that would minimize effects in offshore areas in light of new information violates NEPA's alternatives requirement, and its reasons for declining to develop such alternatives do not bear scrutiny because they eviscerate NEPA, are refuted by Second SEIS itself, and misapprehend the significance of the lease sale decision.

A. NEPA requires the Bureau to take account of new information to develop and compare alternatives that minimize environmental effects

The alternatives section is the "heart of the [EIS.]" 40 C.F.R. § 1502.14; *'Ilio'ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1095 (9th Cir. 2006). Accordingly, NEPA requires an EIS both to develop alternatives that would minimize harm to the environment and to present the environmental impacts of alternatives in a comparative form that provides a clear basis for a choice among options.

An agency is required to develop alternatives that would *minimize* harm to the environment. *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 965 (9th Cir. 2005) (remanding decision to agency where lack of accurate information rendered an EIS unable to "inform[] decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts") (quoting *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004)); *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 809-10 (9th Cir. 1999) (EIS must analyze "effects of the actions in sufficient detail to be 'useful to the decisionmaker in deciding whether, or how, to alter the program to lessen cumulative impacts.'") (quoting *City of Carmel-By-The-Sea v. U.S. Dept. of Transp.*, 123 F.3d 1142, 1160

(9th Cir. 1997)); *see also* 40 C.F.R. § 1502.1 (binding NEPA regulations provide that an EIS must "inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment"); *id*. § 1500.2(e) ("Federal agencies shall to the fullest extent possible . . . [u]se the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of the actions . . . .").

An agency must also "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. § 1502.14. An EIS must include this sharply defined comparison of alternatives so that both government agencies and the public can easily assess environmental trade-offs and make fully informed decisions "based on an understanding of environmental consequences." 40 C.F.R. § 1500.1(c); *see also Ctr. for Biological Diversity. v. U.S. Dep't of Interior*, 623 F.3d 633, 645, 648 (9th Cir. 2010) ("It is black-letter law that NEPA requires a comparative analysis of the environmental consequences of the alternatives before the agency."); *Greenpeace v. Nat'l Marine Fisheries Serv.*, 55 F. Supp. 2d 1248, 1274 (W.D. Wash. 1999).

In order to meet these standards, agencies must "[r]igorously explore and objectively evaluate all reasonable alternatives," devoting "substantial treatment to each alternative considered in detail . . . so that reviewers may evaluate their comparative merits." 40 C.F.R. § 1502.14(a),(b); *see also Se. Alaska Conservation Council v. Fed. Highway Admin.*, 649 F.3d 1050, 1056 (9th Cir. 2011). Although an EIS need not consider an infinite range of alternatives, it must include all reasonable or feasible ones, *Carmel–By–The–Sea*, 123 F.3d at 1155, and a range of alternatives that is "sufficient to permit a reasoned choice." *Methow Valley Citizens*

Council. v. Reg'l Forester, 833 F.2d 810, 815 (9th Cir. 1987), *rev'd on other grounds, Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989). The touchstone for an inquiry is "whether an EIS's selection and discussion of alternatives fosters informed decision-making and informed public participation." *California v. Block*, 690 F.2d 753, 767 (9th Cir.1982). Failure to examine a reasonable alternative renders an EIS inadequate. *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992); *Friends of Southeast's Future v. Morrison,* 153 F.3d 1059, 1065 (9th Cir. 1998). NEPA also obliges an agency to revisit its alternatives analysis whenever there are "changed circumstances [that] affect the factors relevant to the development and evaluation of alternatives," and "account for such change in the alternatives it considers." *Natural Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d 797, 813-14 (9th Cir. 2005).

B. The Bureau violated NEPA by failing to develop and compare alternatives in the Second SEIS that would minimize effects in newly identified important offshore areas

The Bureau failed to meet NEPA's requirement to develop and compare alternatives that minimized effects in light of newly developed evidence about important offshore areas. Scientific evidence developed since the prior lease sale EISs, some of it based on research overseen by the Bureau itself, has demonstrated the biological importance of offshore regions of the Chukchi Sea, such as the Hanna Shoal region in the center of the lease sale area, which the Bureau has identified as a "biological oasis." *See supra* 5-6. Although the Bureau acknowledged this new evidence throughout the Second SEIS, it refused to develop and analyze alternatives in the Second SEIS that could minimize adverse impacts by excluding leasing in and near those areas. *See supra* 8. Instead, the Bureau continued only to analyze and compare the same coastal deferral alternatives it developed nearly a decade ago for the original 2008 lease sale, when the importance of offshore areas was largely unknown. *See supra* 2-5. None of these old coastal deferral alternatives was aimed at minimizing the potentially significant effects of the

lease sale in offshore areas. Moreover, these old alternatives now presented the agency with an all or nothing choice. Two of the alternatives proposed affirming all the existing leases, and one affirming 455 of 460 of the leases, which the Bureau admitted "would not appreciably alter potential impacts." Ex. 19 at 11-12; *see supra* 4-5. Thus, the only alternative included in the Second SEIS that could protect offshore areas was the no action alternative which would have resulted in all leases being voided. Alternatives responsive to new scientific information, *see Natural Res. Def. Council*, 421 F.3d at 813-14, about the biological importance of offshore areas—and particularly the Hanna Shoal region—were plainly "reasonable" approaches, *Se. Alaska Conservation Council*, 649 F.3d at 1056-57, in between the all or nothing alternatives in the Second SEIS, that would be aimed directly at "minimizing adverse impacts", *Native Ecosystems Council* 418 F.3d at 965. The Bureau's refusal to develop and compare such reasonable alternatives in the Second SEIS renders it "inadequate." *Se. Alaska Conservation Council*, 649 F.3d at 1056; *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1038 (9th Cir. 2008); *'Ilio'ulaokalani Coal.*, 464 F.3d at 1095; *Alaska Wilderness Recreation & Tourism Ass'n v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995).

Neither of the Bureau's two justifications[4] for rejecting development and analysis of alternatives that would protect offshore areas withstands scrutiny. First, the Bureau asserted that

[4] The agency record suggests another potential rationale for the agency's decision to stick with only the previous alternatives, despite their limitations—the tight timeframe adopted by the agency to complete the remand analysis. The record makes clear the agency adopted a schedule of less than a year to complete a full supplemental EIS that "border[ed] on impossible," Ex. 12 at 2, 8-11, even though it understood that meant only the existing alternatives could be considered in that timeframe, Ex. 13 at 7 (timeframe based on assumption that only "[e]xisting alternatives for SEIS will be evaluated"); Ex. 10 at 2 ("[w]hat is important in the timelines are the assumptions"); Ex. 13 at 7 ("[c]hanges in any of the assumptions may impact the schedule"), specifically because it wanted to respond to Intervenor-Defendant Shell Gulf of Mexico Inc.'s potential interest in drilling in 2015, Ex. 12 at 5. That plainly would not be a justifiable reason to exclude otherwise reasonable alternatives.

the potential for regulatory agencies to develop future mitigation measures was an adequate substitute for development of alternatives that would protect sensitive areas by excluding leasing near them. *See supra* at 8. Second, it asserted that developing and analyzing alternatives to protect areas like the Hanna Shoal would be "repetitive," Ex. 18 at 12, because the Second SEIS already includes discussion of the values of some of these areas. *Id.* at 11-12, 133.

These rationales conflict with basic NEPA obligations and would eviscerate the fundamental NEPA alternatives requirement. Taken to their logical conclusion, if these arguments were accepted an agency would never have to consider alternatives to reduce impacts based on the always-present potential for future mitigation to reduce damage and the also-required description of the environment. The law is clearly to the contrary. NEPA does not permit an agency to avoid alternatives assessment because an EIS describes potential future mitigation or describes sensitive areas. Instead, NEPA requires all three components in an EIS. In addition to the obligation to describe the affected environment and potential impacts, 40 C.F.R. §§ 1502.15, 1502.16, and to describe potential mitigation measures, *id.* §§ 1502.14(f), 1502.16(h), NEPA also requires that an EIS develop alternatives to minimize effects, *Native Ecosystems Council*, 418 F.3d at 965, 40 C.F.R. § 1502.1, and provide "a comparative analysis of the environmental consequences of the alternatives before the agency," *Ctr. for Biological Diversity*, 623 F.3d at 648; 40 C.F.R. § 1502.14. An agency cannot decide that because it has complied with two of these requirements it can dispense with the third. Yet that is what the agency effectively has done here. The NEPA alternatives requirement is the "heart of an [EIS]", 40 C.F.R. § 1502.14, and is essential if the public and the decision maker are to be informed about the benefits and costs of different approaches to an agency decision. However, because the Bureau did not include alternatives which explicitly provided a comparative assessment of

impacts under a range of possible lease exclusions to protect the key areas, the public cannot determine from only the baseline descriptive information what the beneficial impacts might be of the alternatives not included in the EIS. And, NEPA does not permit the agency to shift this analytical burden to the public; NEPA requires the agency to do this work itself explicitly in the EIS.

Further, the Bureau's own Second SEIS refutes the excuses it used to dismiss developing protective alternatives. The agency itself included the old coastal deferral alternatives in the Second SEIS, which it stated "were each carefully tailored to provide an extra amount of protection for a variety of resources," Ex. 18 at 133, including subsistence resources, even though the agency recognized future mitigation measures could be applied to reduce impacts, *see, e.g., id*. at 118-127 (noting lease stipulations allowing for future mitigation to protect biological resources, Stipulation 1, and subsistence, Stipulation 4 and 5), and even though it described in some detail the resources and threats to the area, *see, e.g.*, Ex. 18 at 20a, 22-25, 32, 36, 38, 42-43, 50, 52, 54-55, 67, 77-84, 85-86, 90-91. If future mitigation or a description of sensitive areas obviated the need for consideration of alternatives, there would be no reason for the Bureau to consider even the coastal lease deferral areas it did. *See Se. Alaska Conservation Council*, 649 F.3d at 1058-59 (finding agency acted arbitrarily when rejecting development of an alternative because its chosen alternative "could have been rejected for the same reason").

The Bureau's justification that future potential mitigation obviated the need for the development of alternatives additionally ignores the importance of the decision being made at the lease sale stage. The decision about whether and which areas to lease is a critical spatial decision that balances the impetus for development with environmental considerations about marine habitat. *See Ctr. for Biological Diversity v. U.S. Dep't. of Interior*, 563 F.3d 466, 480

(D.C. Cir. 2009) (lease sale is the "critical stage" in which the government makes an "irreversible and irretrievable commitment of resources" toward opening an area to oil and gas activity (quoting *Wyo. Outdoor Council v. U.S. Forest Serv.*, 165 F.3d 43, 49 (D.C. Cir. 1999))). After leasing an area, the Bureau's decisions are more constrained than before as it is required to follow statutory procedures to consider oil and gas activities in the area, *see, e.g., Mobil Oil Exploration & Producing Se., Inc. v. United States*, 530 U.S. 604, 620-21 (2000), and can only suspend or cancel leases after making findings of environmental harm, 43 U.S.C. § 1334(a), *Union Oil Co. of Cal. v. Morton*, 512 F.2d 743, 752 (9th Cir. 1975). Accordingly, as the Ninth Circuit made clear in the decision remanding the sale, "later project or site-specific environmental analysis is an inadequate substitute" for analyses at the lease sale stage, because "[i]t is . . . only at the lease sale stage that the agency can take into account the effects of oil production in deciding which parcels to offer for lease." *Native Vill. of Point Hope*, 740 F.3d at 504. As a result, there is a significant difference between an alternative, on the one hand, that avoids altogether leasing in areas to reduce which might result in important effects to wildlife and other values, and an alternative, on the other, that allows leasing but relies on limited mitigation options in the future to reduce impacts.[5]

The Bureau's refusal to consider new alternatives thus contravened NEPA's command "to put on the table, for the deciding agency's and for the public's view, a sufficiently detailed statement of environmental impacts and alternatives so as to permit informed decision making." *Lands Council v. Powell*, 395 F.3d 1019, 1027 (9th Cir. 2004). The Bureau's failure deprived

[5] The Bureau offered another, different justification in the record of decision for refusing to develop a limited alternative that would cancel 10 leases in the Presidential Hanna Shoal withdrawal area—that cancelling the leases under this alternative would not significantly change effects in the region. *See supra* 8. Even assuming this limited alternative would not change effects, the justification only highlights the agency's failure to develop a more substantial alternative that *would* minimize effects to the Hanna Shoal area, as NEPA requires.

the decisionmakers and the public of vital information necessary to evaluate the full impacts of its lease sale decision, violated its duties under NEPA, and rendered the Second SEIS inadequate.

III. THE BUREAU VIOLATED NEPA BY FAILING TO ANALYZE THE LEASE SALE'S EFFECTS ON CLIMATE CHANGE IN LIGHT OF NEW SCIENCE

The Bureau violated NEPA's requirement to include in the Second SEIS a "reasonable discussion" of the climate change effects of oil and gas that could be produced from the lease sale. The record demonstrates there is a new scientific consensus that most fossil fuels must remain undeveloped to limit global temperature rise to 2 degrees Celsius and avoid the worst effects of global warming and that Arctic fossil fuel resources—like those in the Chukchi Sea—are particularly incompatible with keeping warming within this cap. This information provides important context for evaluating the lease sale's potentially large and negative effect on climate change, the preeminent environmental challenge of our time. In declining to address this new information and the issues it raises in the Second SEIS, the Bureau arbitrarily failed to consider an important aspect of the lease sale's effects.

A. NEPA requires full disclosure in the Second SEIS of all significant aspects of the lease sale's potential effects

NEPA's requirement that agencies prepare an EIS 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 (alteration in original) (quoting *Methow Valley*, 490 U.S. at 349) (internal quotation marks omitted). 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*, 418 F.3d at 960 (quoting *Block*, 690 F.2d at 761). 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). Agencies satisfy the "hard look" requirement when they engage in "a reasonably thorough discussion of the significant aspects of the probable environmental consequences" of the action. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1194 (9th Cir. 2008) (quoting *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149 (9th Cir. 1998)).

B. NEPA requires the Bureau to analyze the effects on climate change of the end use of oil and gas produced from the lease sale

This Court has held in this case that NEPA requires the Bureau to engage in a "reasonable discussion" in the lease sale EIS of the effects on climate change of the consumption of the oil and gas that may be produced as a result of the lease sale. Doc. 269 at 4. The holding is the law of the case, *United States v. Alexander*, 106 F.3d 874, 876 (9th Cir. 1997), and it is fully in line with other courts, including the Ninth Circuit, that have considered the issue. Like this Court, these courts hold that when an agency considers a decision that has the potential to lead to increased supply or consumption of fossil fuel and a resulting increase in emissions, NEPA requires it to analyze and disclose these effects.

In *Center for Biological Diversity*, the Ninth Circuit assessed an agency's NEPA analysis for a rule requiring automobile manufacturers to increase the fuel efficiency of their vehicles, thereby lowering average tail-pipe emissions per mile driven. Noting "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct," it held NEPA required the agency to assess how the rule's effects on tail-pipe emissions would affect climate change. *Ctr. for Biological Diversity*, 538 F.3d at 1217, 1223-25.

Likewise, in *Mid States Coalition for Progress v. Surface Transportation Board*, the Eighth Circuit held that NEPA required an agency deciding whether to approve a railroad line providing access to coal mining areas to disclose and analyze the impacts of future combustion of the mined coal. 345 F.3d 520, 549 (8th Cir. 2003). It concluded it would be "irresponsible for the Board to approve a project of this scope without first examining the effects that may occur as a result of the reasonably foreseeable increase in coal consumption." *Id.* at 550.

Consistent with *Center for Biological Diversity* and *Mid States Coalition for Progress* the District of Colorado recently assessed an EIS for a land-management decision in strikingly similar circumstances to the lease sale here and concluded that NEPA required analysis of the climate effects of burning fossil fuels that could be produced as a result of the decision. *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1197-98 (D. Colo. 2014). In *High Country Conservation Advocates*, the court reviewed an EIS prepared by the Forest Service for the promulgation of the Colorado Roadless Rule. *Id.* at 1184, 1194. The rule provided an exemption for road construction related to coal mining in the area at issue in the case, but it did not directly authorize such activities, which would undergo future site-specific environmental analysis and approval. *Id.* at 1184. The court held that NEPA requires the agency to assess the climate consequences of the end use of coal from potential future mines under the rule in the EIS it prepared for the decision. *See id.* at 1196-98.

Recently issued guidance from the Council on Environmental Quality[6] also underscores the necessity of analyzing the climate effects of the end use of lease sale oil and gas. *See* Ex. 14.

[6] The "Council was created by NEPA and charged in that statute with the responsibility 'to review and appraise the various programs and activities of the Federal Government in the light of the policy set forth in. . . this Act . . ., and to make recommendations to the President with respect thereto.'" *Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979) (alterations in original) (quoting 42 U.S.C. § 4344(3)).

The guidance instructs agencies that "[e]missions from activities that have a reasonably close causal relationship to the federal action, such as those that may occur . . . as a consequence of the agency action (often referred to as downstream emissions) should be accounted for in the NEPA analysis." *Id*. at 8. As it explained, "[f]or example, a particular NEPA analysis for a proposed open pit mine could include the reasonably foreseeable effects of various components of the mining process, such as . . . refining or processing the resource, and using the resource . . . as the direct and indirect effects of phases of a single proposed action." *Id.* at 9.

Thus, this Court's holding is consistent with the weight of precedent considering agencies' NEPA obligations to assess and disclose the climate impacts of decisions that threaten increases in greenhouse gas emissions. *See also Native Vill. of Point Hope*, 740 F.3d at 504 ("It is only at the lease sale stage that the agency can adequately consider cumulative effects of the lease sale on the environment, including . . . the effects of the sale on climate change.").

Further, the Ninth Circuit has made clear that the analysis NEPA requires is more than just an accounting of potential carbon emissions. It requires the agencies to "discuss the *actual* environmental effects resulting from those emissions [and] place those emissions in the context of" the agency's other decisions. *See Ctr. for Biological Diversity*, 538 F.3d at 1216; *id.* at 1217 (An agency "must provide the necessary contextual information about the cumulative and incremental environmental impacts of [its decision] in light of other [of its decisions] and other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.").

C. The Bureau violated NEPA by failing to address significant new information relevant to the lease sale's potential effects on climate change

The Bureau did not address in the Second SEIS the climate effects of oil and gas that could be produced and burned as a result of the lease sale. *See supra* 14. The Bureau offered

two justifications for refusing to assess these effects. It concluded, as it did in the 2011 SEIS, that (i) NEPA does not require it to assess these effects and (ii) no reliable methods exist for calculating how producing oil and gas from the lease sale will affect fuel markets and consumption, and ultimately, greenhouse gas production. *See* Ex. 18 at 138-139; *supra* 14. Neither justification meets NEPA's requirements.

The Bureau's first justification—that NEPA does not require assessment of the effects of burning lease sale oil and gas—is flatly at odds with the law of this case. In line with other precedent, this Court has concluded that NEPA *does* require the Bureau to engage in a "reasonable discussion" of these effects. Doc. 269 at 4; *see supra* 24. This holding governs the issue here, *see Alexander*, 106 F.3d at 876, and in any event, the Ninth Circuit and courts elsewhere have made clear that NEPA requires consideration of a decision's potential to increase greenhouse gas emissions, *see supra* 24-26.

The Bureau's second justification—that there are no reliable methods for calculating the effects of lease sale oil and gas on energy markets—avoids the obligation to consider the entirely new question of how this lease sale decision affects compliance with the climate change carbon budget the new science defines. As described above, absent other methods for examining impacts of the lease sale on climate change, the Bureau's prior lease sale EISs focused on whether it could do an analysis of how oil and gas from the lease sale would affect energy markets, consumption rates, and thus greenhouse gas emissions. *See supra* 8-10. But in light of the new science establishing a new framework for considering the climate impacts of fossil fuel development, the Bureau's continuing narrow focus on the difficulty of conducting a predictive

market-based analysis addresses only a part of the picture and ignores "an important aspect of the problem." *State Farm Mut. Auto. Ins. Co.*, 463 U.S. at 43.[7]

The new scientific consensus that most fossil fuels—in particular Arctic fossil fuels—must remain undeveloped to avoid the worst consequences of climate change, *see supra* 11-13, demands a different and additional analysis. In light of this new science, any assessment of the impact of the lease sale on climate change must include an assessment of the potential amount of carbon contributed to the atmosphere as a result of the sale and its relation to the newly defined carbon budget. Such an assessment must also consider the relationship between a decision to develop these potential oil and gas resources and other decisions being made by the Secretary, and the cumulative effect of those decisions on the carbon budget limits. And, it should assess the relationship between the choices made here and those made by other decisionmakers, private and public, about oil and gas development. *Ctr. for Biological Diversity*, 538 F.3d at 1217 (stating NEPA requires agencies to evaluate emissions "in light of . . . other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions"). This assessment is particularly important for the potential Chukchi Sea oil and gas resources, in part because the potential volume is large, Ex. 18 at 15, and in part because the potential Chukchi resources are at this point not yet discovered reserves, *see id.* at 16 (noting no reserves or commercial fields in the Chukchi Sea), yet the new science discloses that the majority of just the already-proven fossil fuel reserves must remain undeveloped to stay within the 2 degree cap, *see supra* 12-13. Thus, a decision to move forward with leasing of resources not

[7] The Court's prior decision,, which upheld the Bureau's previous conclusion that lease sale oil and gas were not likely to increase consumption, did not address this new question. Its holding, Doc. 269 at 4, addressed the prior, market and consumption-rate question on which the Bureau focused. Plaintiffs' argument here does not seek to revisit that issue, but focuses on a new analysis made necessary by new science.

even within the already much too large body of proven reserves is especially problematic. An analysis of all of these components is critical "contextual information," *Ctr. for Biological Diversity*, 538 F.3d at 1217, for the lease sale, and without it, the Second SEIS does not disclose the lease sale's "*actual* environmental effects," *id.* at 1216, on climate change.

The Bureau's failure to conduct this analysis is no minor omission. While impacts to the Arctic environment and the people who depend on it from oil and gas drilling and related activities, including the potentially devastating impacts from a large oil spill, are direct and significant, and must be addressed fully, the impacts of this decision on global climate change are no less critical or essential to address. *See, e.g., Massachusetts v. EPA*, 549 U.S. at 521-22 (discussing the evidence showing that "[t]he harms associated with climate change are serious and well recognized"); *Ctr. for Biological Diversity*, 538 F.3d at 1189-91, 1179 (describing "the environmental significance of CO_2 emissions and the effect of those emissions on global warming"). The potential impacts of climate change to the environment and the way of life for all people are profound, and the nations of the world are rightly addressing the challenge as a global priority. *See supra* 11. No one decision, of course, will be determinative of climate outcomes, but decisions to move forward to develop new oil and gas resources—particularly as-yet-undiscovered ones that will take decades to come to market, like those at issue here—are an important part of the puzzle in light of the current scientific consensus that only a small portion of already discovered reserves can proceed. Any EIS addressing fossil fuel development cannot meet NEPA's requirements if it does not address this issue in light of the current science and explain to the public and the decisionmaker how a decision to proceed toward oil development could affect the preeminent environmental challenge posed by climate change.

The Bureau's failure to assess the lease sale decision and its potential impact on the unprecedented problem of climate change in the context of the new scientific consensus about the carbon budget violates NEPA's "hard look" requirement. NEPA requires the Bureau "to make available to the public high quality information, including accurate scientific analysis, [and] expert agency comments . . . before decisions are made and actions are taken." *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1167 (9th Cir. 2003); *see* 40 C.F.R. § 1500.1(b). But here, the Bureau did not assess the new information or assess the new questions it raises about the lease sale's effects on climate change. It merely "noted" the information without discussion, Ex. 18 at 139, but this dismissal does not meet NEPA's demanding hard look requirement. *See Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 385 (1989) (agency has "a duty to take a hard look at the proffered evidence"); *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 492-93 (9th Cir. 2011) (failure to offer "meaningful response" to comments renders NEPA's "procedural requirement meaningless and the EIS an exercise in 'form over substance.'" (quoting *Metcalf*, 214 F.3d at 1142)); *Ctr. for Biological Diversity*, 349 F.3d at1168-69; *see also High Country Conservation Advocates*, 52 F. Supp. 3d at 1198 (failure to respond to expert evidence about climate change in the record violates NEPA). Because the agency has "entirely failed to consider an important aspect of the problem," the Bureau's failure to assess the climate change effects of lease sale oil and gas in light of the new information violates NEPA. *Native Vill. of Point Hope*, 740 F.3d at 499; *see also Kern v. Bureau of Land Mgmt.*, 284 F.3d 1062, 1071, 1074 (9th Cir. 2002) (remanding an EIS for a resource management plan that failed to assess an important aspect of the problem, the effects of cedar root fungus on the forest at issue); *South Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 588 F.3d 718, 725-26 (9th Cir. 2009) (remanding EIS for a gold mine for

failing to assess an important effect of operation, air pollution from the transport and off-site processing of mined gold).

IV. BECAUSE THE LEASE SALE WAS AFFIRMED IN VIOLATION OF NEPA AND THE APA, THE COURT SHOULD VACATE THE SALE AND ISSUANCE OF LEASES

The Bureau's decision to reaffirm the lease sale violates NEPA. Accordingly, the Court should vacate the decision and remand to the agency with direction to comply with the law, or in the alternative, as it has in the two prior occasions where the agency's EIS has been determined to be inadequate, enjoin drilling activities on the leases until the agency is in compliance with the law.

The normal remedy under the APA for an unlawful agency action is to vacate the agency's action and remand to the agency to act in compliance with its statutory obligations. *See Cal. Wilderness Coal. v. U.S. Dept. of Energy*, 631 F.3d 1072, 1095–96, 1106 (9th Cir. 2011); *Se. Alaska Conservation Council*, 649 F.3d at 1056, 1059; *Natural Res. Def. Council v. Houston*, 146 F.3d 1118, 1129 (9th Cir. 1998); 5 U.S.C. § 706(2)(A).

Only "[i]n rare circumstances" will the Court "remand without vacating the agency's action." *See Humane Soc'y of U.S. v. Locke*, 626 F.3d 1040, 1053 n.7 (9th Cir. 2010). Typically, departure from the normal remedy may be warranted when vacatur would thwart the objective of the statute at issue, *W. Oil & Gas Ass'n v. EPA*, 633 F.2d 803, 813 (9th Cir. 1980), or cause harm to the environment, *see, e.g.*, *Idaho Farm Bureau Fed'n v. Babbitt*, 58 F.3d 1392, 1405–06 (9th Cir. 1995); *see also Cal. Cmtys. Against Toxics v. EPA*, 688 F.3d 989, 993–94 (9th Cir. 2012) (rejecting vacatur when it could result in regional power blackouts, forcing the "use of diesel generators that pollute the air, the very danger the Clean Air Act aims to prevent").

No departure from the normal rule is warranted in this instance. Vacatur here would avoid harm to the environment, *see supra* 6-7, and would further the mandates of NEPA and the

Outer Continental Shelf Lands Act by "preserv[ing] the decision makers' opportunity to choose among policy alternatives," *Houston,* 146 F.3d at 1129 (alteration in original) (quoting *Forelaws on Bd. v. Johnson*, 743 F.2d 677, 685 (9th Cir. 1984)), and ensuring "orderly" offshore development "subject to environmental safeguards," 43 U.S.C. § 1332(3). *See also W. Oil & Gas Ass'n*, 633 F.2d at 813 ("relief for agency procedural error should be a strict reconstruction of procedural rights"). The deficiencies in the Bureau's analyses go to the heart of the decision to hold a lease sale in the Chukchi Sea. Proper analysis and disclosure of alternatives for the lease sale and its impacts on climate change could have led the Bureau to tailor the lease sale differently or reject it altogether.

The record in this case demonstrates why vacatur here is particularly critical to preserve the full opportunity for the Secretary to choose among alternatives that is contemplated by NEPA and avoid "bureaucratic commitment that will become progressively harder to undo the longer it continues," *Massachusetts. v. Watt*, 716 F.2d 946, 952 (1st Cir. 1983). Indeed, as the Ninth Circuit has recognized, when preparing a revised NEPA analysis on remand, an agency should not consider the existence of the unlawfully issued leases in its review. *See N. Cheyenne Tribe v. Hodel*, 851 F.2d 1152, 1157 (9th Cir. 1988) (stating that on remand, the agency must ensure that the prior "decision based on a legally insufficient EIS counts for nothing"). Yet on this remand, the Bureau in several ways allowed the existing unlawfully issued leases to factor into the analysis and decision. First, as it did during the first remand, *see* Doc. 249 at 48, it considered the financial cost of vacating the leases. Ex. 19 at 11. Second, it adopted a tight time frame, Ex. 13 at 3-8, "border[ing] on impossible," Ex. 12 at 2, that required the Bureau from the outset to limit its NEPA analysis so, for example, only "[e]xisting alternatives for SEIS [would] be evaluated," Ex. 12 at 7. Third, it adopted this schedule at Intervenor-Defendant Shell Gulf of

Mexico's (Shell) early and vigorous urging, *see, e.g.*, Ex. 8 at 2-3 (attaching Shell's "Getting to Yes 2015 – Must Have Timeline"); Ex. 9, specifically "to allow Shell the opportunity to make a decision about [the 2015] open water drilling season," Ex. 12 at 5, thus prioritizing the interests of a lessee in exploring unlawfully issued leases over the environmental analysis NEPA requires. The Bureau's single-minded focus on completing its reconsideration of the lease sale on a timeframe exclusively geared to a leaseholder's ambitions to drill on the very leases supposedly under reconsideration lends the appearance that "the die already had been cast." *Metcalf*, 214 F.3d at 1143-46 (backfilling environmental review violates NEPA). The government's prominent consideration of the existence of the unlawfully issued leases and the lessees' investments seriously undermined NEPA's purposes and starkly underscores why the normal vacatur remedy is appropriate and needed here. *See* 40 C.F.R. § 1502.2(g) ("Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made."); *Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 785-87 (9th Cir. 2006).

In the alternative, if the Court does not vacate the lease sale decision, it should enjoin activities on the leases pending the Bureau's compliance with NEPA, as it has done twice before in this case, Doc. 164 at 20-21; Doc. 284, because as described in Plaintiffs' prior briefs, Doc. 82 at 63-65; Doc. 134 at 35-37; Doc. 249 at 48-49; Doc. 262 at 28-29, the balance of harms and the public interest tip in Plaintiffs' favor, particularly as supplemented by additional evidence of irreparable harm to walruses in the region absent an injunction, *see* Ex. 20.

Respectfully submitted this 28th day of August, 2015,

s/ Erik Grafe

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CERTIFICATE OF SERVICE

I hereby certify that on August 28, 2015, a copy of the foregoing PLAINTIFFS' OPENING BRIEF, with attachments, was served electronically on David B. Glazer, Kyle W. Parker, Jeffrey W. Leppo, Ryan P. Steen, Martin T. Schultz, Steven D. DeVries, Steven E. Mulder, Rebecca Kruse, and James N. Leik.

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TABLE OF EXHIBITS
TO PLAINTIFFS' OPENING BRIEF

Exhibit No.	AR No.	Description
1	MMS AR 505-506	Minerals Management Service (MMS), Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 and Seismic Surveying Activities in the Chukchi Sea, Draft Environmental Impact Statement, OCS EIS/EA MMS 2006-060 (October 2006) (excerpts)
2	MMS AR 975-977	MMS, Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 and Seismic Surveying Activities in the Chukchi Sea, Final Environmental Impact Statement, OCS EIS/EA MMS 2007-026 (May 2007) (excerpts)
3	Remand Supplemental AR 1009 – 1010	Bureau of Ocean Energy Management, Regulation and Enforcement, Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 in the Chukchi Sea, Alaska, Final Supplemental Environmental Impact Statement, OCS EIS/EA BOEMRE 2011-041 (August 2011) (excerpts)
4	Remand Supplemental AR 1048	Bureau of Ocean Energy Management (BOEM), Chukchi Sea OCS Oil & Gas Lease Sale 193, Record of Decision (Oct. 2011) (excerpt)
5	Second Remand Supplemental AR 443	International Energy Agency, World Energy Outlook 2012, Executive Summary (2012) (excerpts)
6	Second Remand Supplemental AR 443	Intergovernmental Panel on Climate Change, Climate Change 2014: Synthesis Report (2014)
7	Second Remand Supplemental AR 443	Edenhofer, Ottmar, *et al*., Eds., Climate Change 2014: Mitigation of Climate Change, Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (2014)
8	Second Remand Supplemental AR 39B	Glenn, Sara, Shell, Email to Tommy Beaudreau, BOEM, Re. Shell Alaska (Mar. 27, 2014)

9	Second Remand Supplemental AR 49A	Odum, Marvin E., Shell Oil Company, Letter to Secretary Sally Jewell, U.S. Department of the Interior (Apr. 2, 2014)
10	Second Remand Supplemental AR 76	Warren, Sharon, BOEM, Email to Renee Orr, BOEM, Re. Sale 193 Timeline (May 20, 2014)
11	Second Remand Supplemental AR 210	Lima, James, BOEM, Email to Michael Rolland, BOEM, Re. Analysis of LS 193 SEIS Hanna Shoal Deferral (Aug. 20, 2014)
12	Second Remand Supplemental AR 235	Kendall, James, BOEM, Email to Walter Cruickshank, BOEM, Re. Strategy for LS 193 SEIS..... Update, and a pending call (Sept. 3, 2014) (excerpts)
13	Second Remand Supplemental AR 254	Kendall, James, BOEM, Email to Walter Cruickshank, BOEM, Re. Draft Revised Lease Sale 193 Schedule (Sept. 15, 2014)
14	Second Remand Supplemental AR 443	Council on Environmental Quality, Revised Draft Guidance on Consideration of Greenhouse Gas Emissions and Climate Change in National Environmental Policy Act Evaluations (Dec. 2014) (excerpts)
15	Second Remand Supplemental AR 443	Alaska Wilderness League, *et al*., Comments on Second Supplemental Environmental Impact Statement for Chukchi Sea Oil and Gas Lease Sale 193, BOEM-2014-0078 (Dec. 22, 2014) (excerpt)
16	Second Remand Supplemental AR 460	Audubon Alaska, *et al*., Comments on Second Supplemental Environmental Impact Statement for Chukchi Sea Oil and Gas Lease Sale 193, BOEM-2014-0078 (Dec. 22, 2014)
17	Second Remand Supplemental AR 632	Alaska Wilderness League, *et al*., Supplemental Comment on Second Supplemental Environmental Impact Statement for Chukchi Sea Oil and Gas Lease Sale 193, BOEM-2014-0078 (Jan. 23, 2015)

18	Second Remand Supplemental AR 637 - 638	BOEM, Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 In the Chukchi Sea, Alaska, Final Second Supplemental Environmental Impact Statement, OCS EIS/EA BOEM 2014-669 (Feb. 2015) (excerpts)
19	Second Remand Supplemental AR 716	U.S. Department of the Interior, Chukchi Sea Outer Continental Shelf Oil and Gas Lease Sale 193, Record of Decision (Mar. 2015) (excerpts)
20		Declaration of Timothy J. Ragen, *Alaska Wilderness League, et al. v. Jewell, et al.,* No. 3:15-cv-00067-SLG (July 8, 2015), Doc. 63-2
21		Declaration of Marcelin E. Keever
22		Declaration of Dan Ritzman