

Michael Burger (*counsel of record*)
Jessica Wentz
435 West 116th St.
New York, NY 10027
(212) 854-2372
michael.burger@law.columbia.edu

Attorneys for the Sabin Center for Climate Change Law

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA**

SOVEREIGN IÑUPIAT FOR A LIVING ARCTIC,
et al.,

Plaintiffs,

v.

BUREAU OF LAND MANAGEMENT, et al.,

Defendants,

and

CONOCOPHILLIPS ALASKA, INC.,

Intervenor-Defendant.

Case No. 3:23-cv-00058-
SLG

CENTER FOR BIOLOGICAL DIVERSITY, et al.,

Plaintiffs,

v.

BUREAU OF LAND MANAGEMENT, et al.,

Defendants,

and

CONOCOPHILLIPS ALASKA, INC., et

al.,

Intervenor-Defendants.

Case No. 3:23-cv-00061-
SLG

**AMICUS BRIEF OF THE SABIN CENTER FOR CLIMATE CHANGE
LAW IN SUPPORT OF PLAINTIFFS**

TABLE OF CONTENTS

TABLE OF AUTHORITIESii

STATEMENT OF INTEREST 1

BACKGROUND 2

ARGUMENT 5

 I. The federal government has not adequately assessed climate impacts and opportunities to mitigate those impacts 5

 A. BLM violated NEPA by failing to evaluate a meaningful range of alternatives to mitigate GHG emissions 5

 B. BLM violated NEPA by ignoring the effect of the Willow Project on future oil and gas development 11

 C. BLM and other federal agencies violated the ESA by ignoring the effect of GHG emissions on threatened and endangered species 13

 II. The Court should vacate BLM’s approval of the Willow Project 18

 A. Remand without vacatur would contravene goals related to informed decision-making, public participation, and environmental protection 19

 B. BLM cannot justify its limited review, and may modify the Willow Project after complying with statutory requirements..... 21

CONCLUSION 22

TABLE OF AUTHORITIES

Cases

<i>Advocs. for Highway and Auto Safety v. Fed. Motor Carrier Safety Admin.</i> , 429 F.3d 1136, 1151 (D.C. Cir. 2005)	18
<i>Allied-Signal, Inc. v. U.S. Nuclear Reg. Comm’n</i> , 988 F.2d 146, 150-51 (D.C. Cir. 1993).....	19
<i>Baltimore Gas & Elec. Co. v. NRDC</i> , 462 U.S. 87, 97 (1983)	20
<i>California ex rel. Lockyer v. USDA</i> , 575 F.3d 999, 1018-19 (9th Cir. 2009).....	13
<i>City of Davis v. Coleman</i> , 521 F.2d 661 (9th Cir. 1975).....	12
<i>Ctr. for Biological Diversity v. NHTSA</i> , 538 F.3d 1172, 1219 (9th Cir. 2008)	10
<i>Def. of Wildlife v. Jewell</i> , 176 F. Supp. 3d 975 (D. Mont. 2016).....	18
<i>Friends of Yosemite Valley v. Kempthorne</i> , 520 F.3d 1024, 1032 (9th Cir. 2008)	5
<i>Greater Yellowstone Coal., Inc. v. Servheen</i> , 665 F.3d 1015, 1028 (9th Cir. 2011).....	18
<i>Idaho Farm Bureau Fed’n v. Babbitt</i> , 58 F.3d 1392, 1405 (9th Cir. 1995)	20
<i>Karuk Tribe of Cal. v. USFS</i> , 681 F.3d 1006, 1027 (9th Cir. 2012).....	13
<i>Marathon Oil Co. v. United States</i> , 177 F.3d 1331 (Fed. Cir. 1999)	8, 9
<i>Mobil Oil Expl. & Producing Se., Inc. v. United States</i> , 530 U.S. 604 (2000).....	9
<i>Nat. Res. Def. Council v. Kempthorne</i> , 506 F. Supp. 2d 322 (E.D. Cal. 2007).....	13
<i>Native Ecosystems Council v. U.S. Forest Serv.</i> , 428 F.3d 1233, 1245 (9th Cir. 2005).....	5
<i>Or. Nat. Desert Ass’n v. Zinke</i> , 250 F. Supp. 3d 773, 774 (D. Or. 2017).....	19
<i>Pac. Coast Fed’n Fishermen’s Ass’ns v. Gutierrez</i> , 606 F. Supp. 2d 112 (E.D. Cal 2008)	13
<i>Pollinator Stewardship Council v. U.S. E.P.A.</i> , 806 F.3d 520, 532 (9th Cir. 2015).....	19, 20
<i>Sovereign Iñupiat for a Living Arctic v. BLM</i> , 555 F. Supp. 3d 739, 768-69 (D. Alaska 2021)	7

Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs, 985 F.3d 1032, 1051–53 (D.C. Cir. 2021) 20, 21

W. Watersheds Project v. Zinke, 441 F. Supp. 3d 1042, 1083 (D. Idaho 2020) 19

WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41, 83 (D.D.C. 2019) 12

Williston Basin Interstate Pipeline Co. v. FERC, 519 F.3d 497, 504 (D.C. Cir. 2008) 21

Statutes

1351..... 8

42 U.S.C. § 6506a..... 7

43 U.S.C. §§ 1340..... 8

5 U.S.C. § 706(2)(A)..... 18

Endangered Species Act (ESA), 16 U.S.C. §§ 1531 et seq. 1

National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. 1

Naval Petroleum Reserves Production Act (Reserves Act), 42 U.S.C. §§ 6501 et seq. 1

Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. §§ 1331 et seq 8

Regulations

1502.14(e)..... 6

1508.1(s). 6

40 C.F.R. § 1501.9(e)(2) 6

50 C.F.R. § 402.02 18

CEQ Interim NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1196 (Jan. 9, 2023) 6

Determination of Threatened Status for the Polar Bear (*Ursus maritimus*) Throughout Its Range,
73 Fed. Reg. 28212 (May 15, 2008) 15

Other Authorities

Anthony M. Pagano et al., *Effects of Sea Ice Decline and Summer Land Use on Polar Bear Range Size in the Beaufort Sea*, 12(10) ECOSPHERE 03768 (2021) 17

BIOLOGICAL OPINION FOR WILLOW MASTER DEVELOPMENT PLAN 71 (Oct. 16, 2020)..... 16

ConocoPhillips 2021 Market Update, Edited Transcript (June 30, 2021),
<https://static.conocophillips.com/files/resources/2021-jun-30-cop-n-139276042438-transcript.pdf>..... 11

Dirk Notz & Julienne Stroeve, *Observed Arctic Sea-Ice Loss Directly Follows Anthropogenic CO₂ Emission*, 354 SCI. 747 (2016)..... 15

Eric Regehr et al., *Effects of Earlier Sea Ice Breakup on Survival and Population Size of Polar Bears in Western Hudson Bay*, 71(8) WILDLIFE MGMT. 2673 (2007) 17

Friederike Otto et al., *Assigning Historic Responsibility for Extreme Weather Events*, 7 NATURE CLIMATE CHANGE 757 (2017)..... 15

International Association for Impact Assessment, *Past Award Winners 2018*,
<https://www.iaia.org/award-winners-by-year.php?Year=2018> 2

IPCC, CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS, WORKING GROUP I CONTRIBUTION TO THE IPCC SIXTH ASSESSMENT (2021) 3, 16, 17

IPCC, CLIMATE CHANGE 2022: IMPACTS, ADAPTATION, AND VULNERABILITY, WORKING GROUP II CONTRIBUTION TO THE SIXTH ASSESSMENT REPORT OF THE IPCC (2022)..... 3, 4, 15, 16, 17

IPCC, CLIMATE CHANGE 2023 SYNTHESIS REPORT: SUMMARY FOR POLICYMAKERS 22 fig. SPM.5
(2023)..... 4

Jeffrey Bromaghin et al., *Polar Bear Population Dynamics in the Southern Beaufort Sea During a Period of Sea Ice Decline*, 25(3) *Ecological Applications* 634 (2015)..... 17

Jessica Wentz, *Environmental Impact Assessment*, in *GLOBAL CLIMATE CHANGE AND U.S. LAW* 177 (Michael B. Gerrard et al. eds., 3d Ed. 2023) 2

Kirsten Laidre et al., *Arctic Marine Mammal Population Status, Sea Ice Habitat Loss, and Conservation Recommendations for the 21st Century*, 29(3) *CONSERVATION BIOLOGY* 724 (2015)..... 17

Kristin Laidre et al., *Range Contraction and Increasing Isolation of a Polar Bear Subpopulation in an Era of Sea-Ice Loss*, 8(4) *ECOLOGY & EVOLUTION* 2062 (2018)..... 17

Kristina A Dahl et al., *Quantifying the Contribution of Major Carbon Producers to Increases in Vapor Pressure Deficit and Burned Area in Western US and Southwestern Canadian Forests*, 18 *ENV'T. RESOL. LETTERS* 064011 (2023) 15

Michael Burger & Jessica Wentz, *Downstream & Upstream GHG Emissions: The Proper Scope of NEPA Review*, 41 *HARV. ENV'T L. REV.* 109 (2017)..... 2

Michael Burger & Jessica Wentz, *Evaluating the Effects of Fossil Fuel Supply Projects on GHG Emissions and Climate Change under NEPA*, 44 *WM. & MARY ENV'T L. & POL'Y REV.* 423 (2020)..... 2, 12

Michael Burger et al., *INCORPORATING CLIMATE CHANGE IN NEPA: REVIEWS: RECOMMENDATIONS FOR REFORM* (2022) 2

Paris Agreement, Art. 2(1)(A), (2015), *opened for signature Apr. 22, 2016, ratified by the United States Jan. 20, 2021, TIAS No. 16-1104*..... 3

Pierre Friedlingstein et al., *Global Carbon Budget 2022*, 14 EARTH SYS. SCI. DATA 4811 (2022),
available at <https://essd.copernicus.org/articles/14/4811/2022/> 4

*Request to Revoke Memoranda and Regulations Regarding Consideration of GHG Emissions
and the ESA* (Feb. 11, 2021),
https://www.biologicaldiversity.org/programs/climate_law_institute/pdfs/Scientists-and-Legal-Scholars-Letter-on-the-Endangered-Species-Act-and-Climate-Change.pdf. 14

Romany M. Webb et al., EVALUATING CLIMATE RISK IN NEPA REVIEWS: CURRENT PRACTICES
AND RECOMMENDATIONS FOR REFORM (2022) 2

Steven Ferguson et al., *Demographic, Ecological, and Physiological Responses of Ringed Seals
to an Abrupt Decline in Sea Ice Availability*, 4 PEERJ 2957 (2017) 17

The United States of America: Nationally Determined Contribution (2021), available at
<https://unfccc.int/sites/default/files/NDC/2022-06/United%20States%20NDC%20April%202021%202021%20Final.pdf>..... 4

U.S. Dep’t of Energy, THE U.S. NATIONAL BLUEPRINT FOR TRANSPORTATION DECARBONIZATION
(2023)..... 22

US EPA, Comments on the Willow DSEIS (Aug. 29, 2022)..... 11

STATEMENT OF INTEREST

The Sabin Center for Climate Change Law at Columbia Law School (Sabin Center) submits this amicus brief to advise the Court on the errors underpinning the Bureau of Land Management (BLM)'s approval of the Willow Project and the consequences of allowing the project to proceed without an adequate analysis of alternatives and climate change impacts.

The Sabin Center is an academic think tank dedicated to advancing action on climate change through legal scholarship and advocacy. We have extensive experience with and expertise in federal agency obligations to disclose and address climate impacts under the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq., the Endangered Species Act (ESA), 16 U.S.C. §§ 1531 et seq., the Naval Petroleum Reserves Production Act (Reserves Act), 42 U.S.C. §§ 6501 et seq., and other federal statutes. We

have published numerous articles on climate change and impact assessment,¹ and have been recognized as leading experts in this field.²

As explained below and in the Plaintiffs' briefs, there are serious defects in the federal government's climate analysis for the Willow Project which preclude a meaningful assessment of opportunities to limit fossil fuel dependency and reduce greenhouse gas (GHG) emissions consistent with global and national climate goals. Allowing the project to proceed would undermine the public's interest in rational fossil fuel planning at a time when such planning is urgently needed to address the dangers of climate change.

BACKGROUND

The Intergovernmental Panel on Climate Change (IPCC) and other scientific experts have made clear that the world needs to phase out fossil fuels as rapidly as possible in order to avert potentially catastrophic levels of global warming and climate

¹ See, e.g., Jessica Wentz, *Environmental Impact Assessment*, in GLOBAL CLIMATE CHANGE AND U.S. LAW 177 (Michael B. Gerrard et al. eds., 3d Ed. 2023); Michael Burger et al., INCORPORATING CLIMATE CHANGE IN NEPA: REVIEWS: RECOMMENDATIONS FOR REFORM (2022); Romany M. Webb et al., EVALUATING CLIMATE RISK IN NEPA REVIEWS: CURRENT PRACTICES AND RECOMMENDATIONS FOR REFORM (2022); Michael Burger & Jessica Wentz, *Evaluating the Effects of Fossil Fuel Supply Projects on GHG Emissions and Climate Change under NEPA*, 44 WM. & MARY ENV'T L. & POL'Y REV. 423 (2020) [hereinafter EVALUATING]; Michael Burger & Jessica Wentz, *Downstream & Upstream GHG Emissions: The Proper Scope of NEPA Review*, 41 HARV. ENV'T L. REV. 109 (2017).

² See, e.g., International Association for Impact Assessment, *Past Award Winners 2018*, <https://www.iaia.org/award-winners-by-year.php?Year=2018> (last visited July 21, 2023).

change. The latest IPCC assessment report (AR6) found that global surface temperature had increased by approximately 1.1°C as of 2019, and climate change is already having pervasive and adverse impacts on people and ecosystems across the planet, due to more frequent and severe climate extremes, particularly heat-related extremes, as well as slow-onset processes such as sea level rise, ocean acidification, and shifting bioclimatic conditions.³ These impacts are disproportionately affecting “the most vulnerable people and systems” across different regions, and some natural and human systems have been “pushed beyond their ability to adapt.”⁴

Based on the severity of current and projected impacts, scientific and political bodies around the world have agreed on the importance of limiting global warming to 1.5°C or “well below” 2°C.⁵ The U.S. government agreed to undertake “ambitious efforts” to achieve these targets when it ratified the Paris Agreement, and has committed to reducing economy-wide GHG emissions by 50-52 percent below 2005 levels by 2030, with a goal of achieving net zero emissions no later than 2050.⁶ Fulfilling these

³ IPCC, CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS, WORKING GROUP I CONTRIBUTION TO THE IPCC SIXTH ASSESSMENT (2021) [hereinafter IPCC AR6 WGI]; IPCC, CLIMATE CHANGE 2022: IMPACTS, ADAPTATION, AND VULNERABILITY, WORKING GROUP II CONTRIBUTION TO THE SIXTH ASSESSMENT REPORT OF THE IPCC (2022) [hereinafter IPCC AR6 WGII].

⁴ IPCC AR6 WGII, *supra* note 3, at 9.

⁵ Paris Agreement, Art. 2(1)(A), (2015), *opened for signature* Apr. 22, 2016, *ratified by the United States* Jan. 20, 2021, TIAS No. 16-1104.

⁶ The United States of America: Nationally Determined Contribution (2021), *available at* <https://unfccc.int/sites/default/files/NDC/2022->

commitments will require rapid and deep reductions in GHG emissions this decade.⁷ The vast majority of GHG emissions—both globally and in the U.S.—result from the production and consumption of fossil fuels.⁸

The health of this planet and all of its inhabitants depends on the rapid phase-out of fossil fuel production and consumption.⁹ Notably, the cumulative carbon dioxide (CO₂) emissions from *existing* fossil fuel infrastructure are larger than the total remaining CO₂ budget for 1.5°C, and approximately equal to the total remaining CO₂ budget for 2°C.¹⁰ In other words, the world has already reached key limits with regards to fossil fuel infrastructure, and most remaining fossil fuel reserves will need to be left in the ground if warming is to be limited to 1.5 or 2°C.

It is critically important that the U.S. federal government adopt a rational approach to energy planning that includes, at minimum, careful consideration of the climate implications of new fossil fuel infrastructure and opportunities to reduce path dependency on fossil fuels. Unfortunately, the federal government has failed to do this in the context of

06/United%20States%20NDC%20April%202021%202021%20Final.pdf [hereinafter U.S. NDC].

⁷ IPCC, CLIMATE CHANGE 2023 SYNTHESIS REPORT: SUMMARY FOR POLICYMAKERS 22 fig. SPM.5 (2023) [hereinafter IPCC AR6 SYR].

⁸ Pierre Friedlingstein et al., *Global Carbon Budget 2022*, 14 EARTH SYS. SCI. DATA 4811 (2022), available at <https://essd.copernicus.org/articles/14/4811/2022/>.

⁹ IPCC AR6 WGII, *supra* note 3, at 89.

¹⁰ IPCC AR6 SYR, *supra* note 7, at 24. The economic impacts of stranded assets could total trillions of dollars. IPCC AR6 WGII, *supra* note 3, at 698.

the Willow Project because it has truncated its analysis in a way that precludes it from evaluating whether and how the project can be designed to minimize its contribution to climate change and fossil fuel dependency.

ARGUMENT

I. The federal government has not adequately assessed climate impacts and opportunities to mitigate those impacts

Plaintiffs have described a number of legal deficiencies in BLM’s approval of the Willow Project. Many of these legal deficiencies arise from BLM’s inadequate analysis of climate change-related considerations, specifically: (i) BLM arbitrary limited its consideration of alternatives that would entail less oil production and fewer GHG emissions, (ii) BLM ignored the “growth inducing” effects of the Willow Project on future oil and gas development and associated GHG emissions, and (iii) BLM ignored the effect of project GHG emissions on threatened and endangered species.

A. BLM violated NEPA by failing to evaluate a meaningful range of alternatives to mitigate GHG emissions

NEPA requires that agencies conduct a “full and meaningful consideration” of reasonable alternatives to the proposed action. *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1245 (9th Cir. 2005). The alternatives analysis should be structured to allow for a “real, informed choice” on how to proceed with the project. *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1032 (9th Cir. 2008). NEPA also

requires federal agencies to consider mitigation measures to “avoid, minimize, or compensate” for the effects of a proposed action, and one purpose of the alternatives analysis is to discuss “appropriate mitigation measures” that are not already included in the proposed action. 40 C.F.R. §§ 1501.9(e)(2); 1502.14(e); 1508.1(s).

GHG emissions attributable to the Willow Project represent a substantial contribution to climate change and associated damages. BLM estimates that Willow will result in the release of over 239 million metric tons of CO₂-equivalent, causing net climate damages up to and possibly exceeding \$15 billion. Record of Decision (ROD) at 12; Final Supplemental Environmental Impact Statement (FSEIS), Vol. 1 at 52.¹¹ The fact that these emissions are small in proportion to overall U.S. or global emissions is irrelevant. As the Council on Environmental Quality (CEQ) has explained,

[S]uch comparisons and fractions also are not an appropriate method for characterizing the extent of a proposed action's and its alternatives' contributions to climate change because this approach does not reveal anything beyond the nature of the climate change challenge itself—the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large effect.

CEQ Interim NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1196 (Jan. 9, 2023). Although there may be uncertainty as

¹¹ The final action differs in scope from the production scenarios detailed in the FSEIS. However, BLM did not include a revised social cost estimate or a detailed emissions estimate in the ROD. The figures cited above do not include direct emissions (which were not disclosed in the ROD), and the social cost estimate is based on the indirect emissions and the social cost values that BLM used for other production scenarios in the FSEIS.

to the precise threshold at which a project makes a “substantial” or “significant” contribution to climate change, there is no question that the Willow Project surpasses this threshold.

Given these circumstances, BLM should have evaluated project alternatives that would meaningfully reduce GHG emissions and climate damages attributable to this project. However, in the FSEIS for the project, BLM only considered alternatives that would allow ConocoPhillips to “fully develop” the oil and gas field. FSEIS, Vol. 8, Appx. B.5 at 27, 58. This decision was based on BLM’s determination that it lacked authority under the Reserves Act to “strand an economically viable quantity of oil.” *Id.* at 37-38.

When this Court vacated and remanded BLM’s prior approval of the Willow Project, it held that BLM had unlawfully restricted its alternatives analysis based on the erroneous view the developer had “the right to extract all possible oil and gas on its leases”, and that BLM’s “asserted restriction on its authority is inconsistent with its own statutory responsibility to mitigate adverse effects on surface resources.” *Sovereign Inupiat for a Living Arctic v. BLM*, 555 F. Supp. 3d 739, 768-69 (D. Alaska 2021).

BLM has again misinterpreted its statutory obligations. The Reserves Act directs BLM to impose “conditions, restrictions, and prohibitions” on oil and gas development in the NPR-A as “necessary or appropriate to mitigate reasonably foreseeable and significant adverse effects on... surface resources.” 42 U.S.C. § 6506a. In the SEIS for the Willow Project, BLM did not adequately consider alternatives involving “restrictions

and prohibitions” on drilling, because it concluded that imposing such restrictions and prohibitions would prevent ConocoPhillips from fully developing the oil and gas field. While BLM recognized that it can “condition Project approval to protect surface resources even if doing so reduces the amount of oil and gas that can be profitably produced,” it went on to assert that the lessees must be able to “fully develop the oil and gas field” and limited its alternatives analysis based on this mistaken view. FSEIS Appx. B.5 at 27.

Lessees are not automatically entitled to permits to extract oil and gas from land leased from the federal government. This was made clear by the U.S. Court of Appeals for the Federal Circuit in *Marathon Oil Co. v. United States*, 177 F.3d 1331 (Fed. Cir. 1999). The plaintiff in that case—Marathon Oil—was denied approval to extract oil from land it leased from the federal government under the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. §§ 1331 et seq. Similar to the Reserves Act, OCSLA requires the Secretary of the Interior to approve plans for oil and gas development on leased land, and ensure compliance with statutory requirements related to environmental and resource protection. *See, e.g.*, 43 U.S.C. §§ 1340; 1351.

In *Marathon Oil Co.*, the Federal Circuit noted that leases issued under OCSLA “grant lessees the exclusive right to drill for, develop, and produce oil and gas resources.” 177 F.3d at 1333. However, “[o]btaining a lease is one thing; obtaining the necessary permits to explore and then produce is another.” *Id.* The court held that the Secretary of

the Interior did not violate Marathon Oil’s lease rights when it refused to approve its development plan, because the right to drill for oil and gas resources “was expressly conditioned on compliance with . . . statutory and regulatory provisions” aimed at, among other things, protecting coastal ecosystems, and these statutory requirements had not been met. *Id.* at 1337. Thus, “to treat Marathon’s failure to obtain the necessary approvals and permits for exploratory activity as a breach of contract by the Government would be to eviscerate these salutary protections of the nation’s fragile coastal lands and waters.” *Id.* at 1338.¹² Although the Federal Circuit was dealing with a different statute, its reasoning is persuasive, due to the similarities between OCSLA and the Reserves Act.

Climate change is already having significant adverse effects on the surface resources of the NPR-A. “Minimum temperatures in the Arctic have increased at about three times the global rate over the past 50 years,” resulting in the “loss of sea ice and snow cover.” FSEIS at 37. “Permafrost loss in Alaska’s North Slope is already widespread.” *Id.* at 38. Unless GHG emissions are rapidly reduced, “further warming will lead to further reductions of near-surface permafrost volume.” *Id.* There will also be a decrease in snow cover, “with a later date of first snowfall and an earlier snowmelt,”

¹² The Federal Circuit’s decision was reversed by the Supreme Court on appeal, but on different grounds. *Mobil Oil Expl. & Producing Se., Inc. v. United States*, 530 U.S. 604 (2000).

which will “reduce water storage and increase the risk and extent of wildland fires and insect outbreaks in the region.” *Id.* These impacts cause harm to ecological systems as well as Alaskan Native communities that depend on ecosystems for subsistence, culture, recreation, and other values. The root cause of these adverse effects is GHG emissions, which the Willow Project will significantly increase. BLM has the authority to impose “restrictions and prohibitions” on drilling so as to “mitigate” these adverse environmental effects.¹³

BLM’s decision to restrict the scope of its alternatives analysis is thus premised on a fundamental legal error, rendering the analysis inadequate under NEPA. *See Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1219 (9th Cir. 2008). BLM cannot make an informed decision about how to move forward with the Willow project – or meaningfully involve the public in its decision-making process – without considering a meaningful range of alternatives that would mitigate the climate damages attributable to the project.

¹³ Plaintiffs have explained why BLM’s failure to consider lower GHG alternatives also violates the Reserves Act. We focus on NEPA in this brief due to our expertise in federal obligations under that statute.

B. BLM violated NEPA by ignoring the effect of the Willow Project on future oil and gas development

In the SEIS, BLM acknowledged that development of the Willow Project would likely result in additional oil and gas projects, as there are 189 active leases in the area, and project infrastructure would make “exploration and development of [those leases] easier and more economically viable.” FSEIS, Vol. 1 at 401. BLM identified a number of “reasonably foreseeable future actions” including the West Willow and Harpoon projects, and BLM had sufficient data on the West Willow project to estimate oil production (75 million barrels) as well as emissions from construction and operation. FSEIS, Vol. 1 at 402-04. Similarly, the developer, ConocoPhillips, foresees that BLM’s approval of Willow will pave the way for future oil development, and has told investors that it has already identified “up to 3 billion [barrels of oil equivalent] of nearby prospects and leads with similar characteristics that could leverage the Willow infrastructure.”¹⁴ The Environmental Protection Agency (EPA) also recognized the potential for growth inducing effects and urged BLM to conduct a “more robust analysis of [ConocoPhillips’] adjacent oil prospects and the reasonably foreseeable future actions related to these prospects.”¹⁵

¹⁴ ConocoPhillips 2021 Market Update, Edited Transcript (June 30, 2021), <https://static.conocophillips.com/files/resources/2021-jun-30-cop-n-139276042438-transcript.pdf>, at 10.

¹⁵ U.S. EPA, Comments on the Willow DSEIS (Aug. 29, 2022), at 6.

However, BLM did not quantify or analyze the downstream emissions that would occur as an indirect effect of its approval of the Willow project. BLM thus failed to take a hard look at the indirect and growth inducing effects of the Willow development. *See City of Davis v. Coleman*, 521 F.2d 661 (9th Cir. 1975). *See also WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 83 (D.D.C. 2019) (“[C]onsidering each individual project in a vacuum deprives the agency and the public of the context necessary to evaluate oil and gas drilling on federal land before irretrievably committing to that drilling.”).¹⁶

The fact that the Willow Project is poised to open up an entire region to new oil and gas development should have been a central focus of the federal government’s climate analysis. The unique and highly sensitive nature of the region makes BLM’s failure to consider the impacts of opening it to new oil and gas development especially egregious. The North Slope of Alaska is the largest undisturbed tract of public land in the U.S., and is highly sensitive to climate change. Opening this area to fossil fuel development will likely cause substantial environmental harm, in part due to surface activities, but also due to GHG emissions. The federal government cannot assess the extent of harm if it does not account for the emissions from reasonably foreseeable oil development that will be induced by BLM’s approval of the Willow project.

¹⁶ *See also* Burger & Wentz, EVALUATING, *supra* note 1.

C. BLM and other federal agencies violated the ESA by ignoring the effect of GHG emissions on threatened and endangered species

As detailed in the Plaintiffs’ brief, BLM ignored the effect of GHG emissions on ESA-listed species based on the misconception that it could not establish “causal links” between the emissions and specific harm to any particular species. FWS-AR032344-47. The Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) inappropriately construed BLM’s analysis as a “no effect” finding under Section 7 of the ESA. *See* NMFS-AR000495; FWS-AR032341. As a result, BLM, FWS, and NMFS all violated the ESA by failing to evaluate whether GHG emission attributable to Willow could affect the survival and recovery of ESA-listed species, particularly ice-dependent species that are uniquely sensitive to changes in temperature and sea ice loss associated with climate change.

Section 7 of the ESA sets a low bar for consultations. According to the Ninth Circuit, “[a]ny possible effect, whether beneficial, benign, adverse, or of an undetermined character” triggers the requirement. *See Karuk Tribe of Cal. v. USFS*, 681 F.3d 1006, 1027 (9th Cir. 2012); *California ex rel. Lockyer v. USDA*, 575 F.3d 999, 1018-19 (9th Cir. 2009). Federal agencies must consider climate change-related threats when implementing their duties under the ESA, including during Section 7 consultations. *See, e.g., Nat. Res. Def. Council v. Kempthorne*, 506 F. Supp. 2d 322 (E.D. Cal. 2007); *Pac. Coast Fed’n Fishermen’s Ass’ns v. Gutierrez*, 606 F. Supp. 2d 112 (E.D. Cal 2008).

The decision of BLM, FWS, and NMFS to ignore GHG emissions during the Section 7 consultation is based on a 2008 legal opinion by then-Solicitor of Interior, David Bernhardt, which declared that it is impossible to establish a causal connection between project-level emissions and harm to specific species and their habitats. FWS-AR032371. The memo asserted that project-specific GHG emissions cannot pass the “may affect” test based on this erroneous conclusion, and thus GHG emissions are “not subject to consultation under the ESA and its implementing regulations.” FWS-AR032377. FWS referred to this memo when agreeing with BLM’s conclusion that it could not identify “project-specific effects to listed species or designated critical habitat.” FWS-AR032341.

The position outlined in the 2008 Bernhardt memorandum was not supported by the best available science at the time, and its analytical errors have become more egregious as climate attribution science has advanced.¹⁷ There is a clear causal connection between project-level emissions and climate impacts, as each unit of CO₂ (and other GHGs) released into the atmosphere contributes to climate change, and many harmful ecological impacts can be traced back to GHG contributions. Indeed, there is very high confidence that “[b]iodiversity loss and degradation, damages to and transformation of ecosystems are

¹⁷ *Request to Revoke Memoranda and Regulations Regarding Consideration of GHG Emissions and the ESA* (Feb. 11, 2021), https://www.biologicaldiversity.org/programs/climate_law_institute/pdfs/Scientists-and-Legal-Scholars-Letter-on-the-Endangered-Species-Act-and-Climate-Change.pdf.

already key risks for every region due to past global warming and will continue to escalate with every increment of global warming.”¹⁸

What’s more, climate models and detection and attribution methods can be used to quantify the relative contributions of specific GHG sources to climate change impacts.¹⁹ In some cases, it is even possible to isolate the effects of GHG emissions on a per-ton basis, particularly where those impacts scale linearly with increases in radiative forcing and global warming. For example, Notz & Stroeve (2016) found that each metric ton of CO₂ released into the atmosphere results in a sustained loss of 3 ± 0.3 square meters of September sea ice in the Arctic.²⁰ As plaintiffs have pointed out, this study was included in the administrative record, and could readily be used to assess the effect of Willow’s GHG emissions on sea-ice dependent species. Such application is entirely appropriate, as the threat climate change poses to ice-dependent species is particularly acute. *See, e.g.*, Determination of Threatened Status for the Polar Bear (*Ursus maritimus*) Throughout Its Range, 73 Fed. Reg. 28212 (May 15, 2008). Sea ice extent has declined substantially since 1979, with the largest declines occurring in the summer; summer sea ice is declining most

¹⁸ IPCC AR6 WGII, *supra* note 3, at 14.

¹⁹ *See, e.g.*, Friederike Otto et al., *Assigning Historic Responsibility for Extreme Weather Events*, 7 NATURE CLIMATE CHANGE 757 (2017); Kristina A Dahl et al., *Quantifying the Contribution of Major Carbon Producers to Increases in Vapor Pressure Deficit and Burned Area in Western US and Southwestern Canadian Forests*, 18 ENV’T. RESOL. LETTERS 064011 (2023).

²⁰ Dirk Notz & Julienne Stroeve, *Observed Arctic Sea-Ice Loss Directly Follows Anthropogenic CO₂ Emission*, 354 SCI. 747 (2016).

rapidly in the East Siberian, Beaufort, Chukchi, Laptev, and Kara seas; and the Arctic is likely to become “practically sea ice free in September” at least once before 2050, which has enormous implications for the health and survival of ice-dependent species.²¹

In its Biological Opinion for the Willow project, FWS affirmed that the decline of sea ice habitat due to climate change was “the primary threat to polar bears.” BIOLOGICAL OPINION FOR WILLOW MASTER DEVELOPMENT PLAN 71 (Oct. 16, 2020). However, FWS treated this as part of the environmental baseline for its jeopardy analysis, and did not consider whether GHG emissions from Willow would contribute to sea ice loss or other climate change impacts that threaten polar bears and other species. In a separate letter to BLM, FWS stated that it could not predict GHG effects based on an “an estimate of a project-caused decrease in sea ice occurring somewhere in the Arctic, without more specific information (e.g., location and type of affected sea ice, use [if any] of that sea ice by listed species and their prey/forage, etc.)” FWS-AR032341. This is simply not the case.

FWS’s statement ignores the fact that there *is* available data on the location and type of sea ice decline that is occurring due to climate change. As noted above, the observational record shows that summer sea ice is declining most rapidly in specific regions that overlap with the designated critical habitat for polar bears, ringed seals, and bearded seals (e.g., the Beaufort and Chukchi seas). There is also available research on how sea ice decline affects

²¹ IPCC AR6 WGI, *supra* note 3, at 16; Cross-Chapter Paper 6: *Polar Regions*, in IPCC AR6 WGII, *supra* note 3.

ESA-listed species – e.g., the loss of sea ice has been directly linked to population declines, range contractions, phenological shifts, and other changes in the distribution, demographics, physiology, denning, foraging behavior, and survival rates for polar bears and other ice-dependent species.²²

The estimated contribution to sea ice loss is one critical example of how project-level emissions can be traced to specific impacts that are reasonably certain to occur and harmful to ESA-listed species. There are many other pathways through which climate change can affect these species (e.g., direct temperature stress, ocean acidification, sea level rise, extreme events, and alterations to food chains). Granted, it is not possible to quantify all of the climate impacts attributable to project-level emissions, and even where quantification is possible, there will inevitably be some uncertainty underpinning these estimates. But federal agencies cannot simply ignore climate science on the basis of

²² See, e.g., Ch. 3: *Human Influence on the Climate System*, in IPCC AR6 WGI, *supra* note 3; Cross-Chapter Paper 6: *Polar Regions*, in IPCC AR6 WGII, *supra* note 3; Kristin Laidre et al., *Range Contraction and Increasing Isolation of a Polar Bear Subpopulation in an Era of Sea-Ice Loss*, 8(4) *ECOLOGY & EVOLUTION* 2062 (2018); Anthony M. Pagano et al., *Effects of Sea Ice Decline and Summer Land Use on Polar Bear Range Size in the Beaufort Sea*, 12(10) *ECOSPHERE* 03768 (2021); Jeffrey Bromaghin et al., *Polar Bear Population Dynamics in the Southern Beaufort Sea During a Period of Sea Ice Decline*, 25(3) *Ecological Applications* 634 (2015); Eric Regehr et al., *Effects of Earlier Sea Ice Breakup on Survival and Population Size of Polar Bears in Western Hudson Bay*, 71(8) *WILDLIFE MGMT.* 2673 (2007); Steven Ferguson et al., *Demographic, Ecological, and Physiological Responses of Ringed Seals to an Abrupt Decline in Sea Ice Availability*, 4 *PEERJ* 2957 (2017); Kirsten Laidre et al., *Arctic Marine Mammal Population Status, Sea Ice Habitat Loss, and Conservation Recommendations for the 21st Century*, 29(3) *CONSERVATION BIOLOGY* 724 (2015).

uncertainty or imprecision where the data suggests that there is a potential threat to a species. *See Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1028 (9th Cir. 2011) (FWS cannot dismiss a threat to a species on the basis of “scientific uncertainty” where there is credible evidence of the threat); *Def. of Wildlife v. Jewell*, 176 F. Supp. 3d 975 (D. Mont. 2016) (FWS cannot ignore the “best available science” because there is not “better science” available).

In this case, it is virtually certain that GHG emissions attributable to the Willow Project *will* cause some level of harm to ice-dependent species. Thus, the question is not whether the emissions “may affect” these species, but rather whether those effects “would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species... by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02. The federal government must evaluate this question in accordance with the procedures set forth in the ESA and its implementing regulations.

II. The Court should vacate BLM’s approval of the Willow Project

The Administrative Procedure Act directs reviewing courts to “set aside” agency action that is arbitrary, capricious, or otherwise unlawful. 5 U.S.C. § 706(2)(A). Thus, unlawful agency action “normally warrants vacatur.” *Advocs. for Highway and Auto Safety v. Fed. Motor Carrier Safety Admin.*, 429 F.3d 1136, 1151 (D.C. Cir. 2005). Courts have discretion to leave agency action in place while the decision is remanded for further

explanation, but this is an unusual remedy that should only be issued in “limited circumstances.” *Pollinator Stewardship Council v. U.S. E.P.A.*, 806 F.3d 520, 532 (9th Cir. 2015).

The decision on whether to vacate an action generally depends on “the seriousness of the order’s deficiencies” and the “disruptive consequences” of vacatur. *Allied-Signal, Inc. v. U.S. Nuclear Reg. Comm’n*, 988 F.2d 146, 150-51 (D.C. Cir. 1993). Here, we focus on the first factor in the *Allied-Signal* test. When assessing the seriousness of the agency’s error, courts may consider, *inter alia*, whether the error contravenes statutory purposes, and whether the agency would likely be able to substantiate its decision on remand without changing the substance of the action.

A. Remand without vacatur would contravene goals related to informed decision-making, public participation, and environmental protection

The seriousness of the agency’s error should be “measured by the effect the error has in contravening the purposes of the statute[s] in question.” *W. Watersheds Project v. Zinke*, 441 F. Supp. 3d 1042, 1083 (D. Idaho 2020) (citing *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 314 (1982)). Where agencies have violated environmental statutes like NEPA and the ESA, courts have characterized these as “serious” errors because they contravene statutory goals of informed decision-making, meaningful public participation, and environmental protection. *See, e.g., Or. Nat. Desert Ass’n v. Zinke*, 250 F. Supp. 3d 773, 774 (D. Or. 2017); *W. Watersheds Project*, 441 F. Supp. 2d at 1083.

Courts should also consider whether the vacatur itself would be consistent with statutory purposes, including those related to environmental protection. *See, e.g., Idaho Farm Bureau Fed'n v. Babbitt*, 58 F.3d 1392, 1405 (9th Cir. 1995) (choosing not to vacate because setting aside decision to list snail species as endangered would risk potential extinction of that species); *Pollinator Stewardship Council*, 806 F.3d at 532 (vacating EPA's registration of sulfoxaflor because leaving the rule in place would risk more potential environmental harm than vacating it).

BLM has undermined the goals and purposes of NEPA and the ESA by arbitrarily restricting its analysis of project alternatives and climate impacts. The point of NEPA reviews and ESA consultations is to ensure that federal agencies conduct a meaningful and rational analysis of environmental impacts *before* proceeding with the approval or implementation of a project. If a developer can “build first and consider environmental consequences later, NEPA’s action-forcing purpose loses its bite.” *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 985 F.3d 1032, 1051–53 (D.C. Cir. 2021). In addition, because BLM constrained its analysis as it did, it limited the opportunities for the public to evaluate and provide input on alternatives and GHG mitigation. This undermines NEPA’s goals of promoting informed, rational decision-making with effective public participation. *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983).

B. BLM cannot justify its limited review, and may modify the Willow Project after complying with statutory requirements

When assessing the seriousness of the error, courts may also consider whether there is a “significant possibility that the [agency] may find an adequate explanation for its actions” on remand. *Williston Basin Interstate Pipeline Co. v. FERC*, 519 F.3d 497, 504 (D.C. Cir. 2008). In the context of a NEPA violation, the focus of this inquiry is whether the agency can justify its decision *with regards to scope and format of its NEPA analysis*, as opposed to whether the agency can justify the action itself. *See Standing Rock Sioux Tribe*, 985 F.3d at 1052 (“If... courts considered only whether the agency was likely to ultimately justify the approval, it would subvert NEPA’s purpose by giving substantial ammunition to agencies seeking to build first and conduct comprehensive reviews later”). That said, the error should also be viewed as more “serious” if remedying the defect in the NEPA analysis would likely result in changes to the agency’s final action.

BLM cannot justify its decision to ignore project alternatives and climate impacts in its review of the Willow Project. BLM will therefore need to amend its NEPA and ESA analyses, and this weighs in favor of vacatur. In addition, there is a reasonable prospect that BLM would reduce the scope of planned oil and gas development once it completes comprehensive NEPA and ESA reviews, which reveal the full extent of risks posed by the Willow Project, and the need for “restrictions and prohibitions” on development to “mitigate” adverse environmental impacts consistent with the Reserves Act. Further

increasing the likelihood of BLM restricting development is the fact that imposing such restrictions would be more consistent with federal climate policies than maintaining the status quo.²³

CONCLUSION

For the reasons stated above, we urge the court to vacate and remand this matter to the federal government for a more complete and meaningful assessment of climate impacts and opportunities to mitigate those impacts.

DATED July 26, 2023.

By: /s/ Michael Burger
MICHAEL BURGER
(212) 854-2372
michael.burger@law.columbia.edu

Attorney for the Sabin Center for Climate Change Law

²³ See, e.g., U.S. NDC, *supra* note 6; U.S. Dep't of Energy, THE U.S. NATIONAL BLUEPRINT FOR TRANSPORTATION DECARBONIZATION (2023).

CERTIFICATE OF SERVICE

I hereby certify that on July 26, 2023, I caused to be electronically filed the foregoing with the Clerk of Court using the CM/ECF system which will send notification and electronic service of the same to all counsel of record.

DATED July 26, 2023.

By: /s/ Michael Burger _____

MICHAEL BURGER

(212) 854-2372

michael.burger@law.columbia.edu

Attorney for the Sabin Center for Climate Change Law