EXHIBIT A

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

STANDING ROCK SIOUX TRIBE, et al.,

Plaintiffs,

and

CHEYENNE RIVER SIOUX TRIBE, et al.,

Plaintiff-Intervenors

v.

U.S. ARMY CORPS OF ENGINEERS,

Defendant-Cross Defendant

and

DAKOTA ACCESS, LLC,

Defendant-Intervenor-Cross Claimant. Case No. 16-cv-1534-JEB (and Consolidated Case Nos. 16-cv-1796 and 17-cv-267)

AMICUS CURIAE BRIEF OF BOLD ALLIANCE, CENTER FOR BIOLOGICAL DIVERSITY, DAKOTA RURAL ACTION, FRIENDS OF THE EARTH, HONOR THE EARTH, SAVE OUR ILLINOIS LAND, SIERRA CLUB, AND 350.ORG IN SUPPORT OF PLAINTIFFS' BRIEF ON VACATUR

Elizabeth F. Benson CA State Bar No. 268851 Joining with member per LCvR 83.2(c)(1) Sierra Club 2101 Webster Street, Suite 1300 Oakland, CA 94612 Telephone: (415) 977-5723 elly.benson@sierraclub.org Karimah Schoenhut
D. D.C. Bar No. PA0060
D.C. Bar No. 1028390
Joining with non-member per LCvR 83.2(c)(1)
Sierra Club
50 F Street, NW 8th Floor
Washington, DC 20001
Telephone: (202) 548-4584
karimah.schoenhut@sierraclub.org

Counsel for Amici Curiae

CORPORATE DISCLOSURE STATEMENT

In accordance with LCvR 7(o)(5) and Rules 26.1 and 29(a)(4) of the Federal Rules of Appellate Procedure, Amici Bold Alliance, Center for Biological Diversity, Dakota Rural Action, Friends of the Earth, Honor the Earth, Save Our Illinois Land, Sierra Club, and 350.org represent that each is a non-profit organization with no parent corporation and no outstanding stock shares or other securities in the hands of the public. No publicly held corporation owns any stock in any of the organizations.

TABLE OF CONTENTS

CORPO	ORATE	DISCLOSURE STATEMENT	i
TABLE	E OF A	UTHORITIES	iii
IDENT	ITY Al	ND INTEREST OF AMICI CURIAE	1
STATE	EMENT	OF COUNSEL	4
INTRO	DUCT	ION	4
ARGUI	MENT.		5
I.		Presumptive Remedy of Vacatur is Appropriate Because the Corps' re to Prepare a Legally Required EIS Is a "Serious" Deficiency	6
	A.	The Corps' Failure to Prepare an EIS Undermines NEPA's Core Purpose of Informed Decisionmaking	6
	B.	The Corps' and Dakota Access's Attempts to Downplay the Seriousness of this Deficiency Fail	8
	C.	Vacatur Protects the Integrity of the NEPA Process	11
II.	Any l	Disruptive Consequences Do Not Warrant Remand Without Vacatur	13
	A.	The Risk of Serious Irreparable Environmental Harm Caused by a Spill Outweighs Any Economic Harm from Halting the Flow of Oil	13
	B.	Remand Without Vacatur Is Only Appropriate in Limited Circumstances Not Present Here	14
	C.	Dakota Access's Decision to Proceed With Pipeline Construction and Operation Despite the Circumstances Renders Any Economic Harm Self-Inflicted	16
	D.	The Current Global Oil Supply Glut Undermines Claims Regarding the Disruptive Consequences of Halting Pipeline Operation During Remand	17
	E.	Oil Production From the Bakken Shale Formation Adversely Impacts the Environment, Human Health, and Local Communities	20
CONCI	LUSIO	N	23
CERTII	FICAT	E OF COMPLIANCE	25

TABLE OF AUTHORITIES

Cases

AFL-CIO v. Chao, 496 F. Supp. 2d 76 (D.D.C. 2007)
Allied-Signal, Inc. v. U.S. Nuclear Regulatory Comm'n, 988 F.2d 146 (D.C. Cir. 1993)
Am. Bioscience, Inc. v. Thompson, 269 F.3d 1077 (D.C. Cir. 2001)
Am. Rivers v. FERC, 895 F.3d 32 (D.C. Cir. 2018)
Andrus v. Sierra Club, 442 U.S. 347 (1979)9
Cal. Cmtys. Against Toxics v. EPA, 688 F.3d 989 (9th Cir. 2012)
Ctr. for Food Safety v. Vilsack, 734 F. Supp. 2d 948 (N.D. Cal. 2010)
Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190 (D.C. Cir. 1991)
Colo. Wild v. U.S. Forest Serv., 523 F. Supp. 2d 1213 (D. Colo. 2007)
Comcast Corp. v. FCC, 579 F.3d 1 (D.C. Cir. 2009)
Comm. to Save the Rio Hondo v. Lucero, 102 F.3d 445 (10th Cir. 1996)
Davis v. Mineta, 302 F.3d 1104 (10th Cir. 2002)
Dep't of Transp. v. Pub. Citizen, 541 U.S. 752 (2004)8
<i>Diné CARE v. OSM</i> , No. 12-cv-1275-JLK, 2015 WL 1593995 (D. Colo. Apr. 6, 2015)

898 F.2d 183 (D.C. Cir. 1990)	15
FCC v. NextWave Personal Commc'ns, 537 U.S. 293 (2003)	5
Found. on Econ. Trends v. Heckler, 756 F.2d 143 (D.C. Cir. 1985)	, 9
Heartland Reg'l Med. Ctr. v. Sebelius, 566 F.3d 193 (D.C. Cir. 2009)	15
High Country Conservation Advocates v. U.S. Forest Serv., 67 F. Supp. 3d 1262 (D. Colo. 2014)	12
Humane Soc. of U.S. v. Johanns, 520 F. Supp. 2d 8 (D.D.C. 2007)	5
Idaho Farm Bureau Fed'n v. Babbitt, 58 F.3d 1392 (9th Cir. 1995)	15
Indigenous Envtl. Network v. State Dep't, 369 F. Supp. 3d 1045 (D. Mont. 2018)	14
League of Wilderness Defs./Blue Mountains Biodiversity Project v. Connaughton, 752 F.3d 755 (9th Cir. 2014)	14
Mont. Wilderness Ass'n v. Fry, 408 F. Supp. 2d 1032 (D. Mont. 2006)	12
Nat'l Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722 (9th Cir. 2001)	14
Nat'l Parks Conservation Ass'n v. Semonite, 916 F.3d 1075, 1082 (D.C. Cir. 2019)	10
Nat'l Parks Conservation Ass'n v. Semonite, 422 F. Supp. 3d 92 (D.D.C. 2019)	14
Nat. Res. Def. Council v. EPA, 489 F.3d 1250 (D.C. Cir. 2007)	15
North Carolina v. EPA,	15

N. Cheyenne Tribe v. Hodel, 851 F.2d 1152 (9th Cir. 1988)
N. Plains Res. Council v. U.S. Army Corps of Eng'rs, No. 19-cv-44 (D. Mont. May 11, 2020)1:
Oglala Sioux Tribe v. U.S. Nuclear Regulatory Comm'n, 896 F.3d 520 (D.C. Cir. 2018)
Oregon Nat. Desert Ass'n v. Zinke, 250 F. Supp. 3d 773 (D. Or. 2017)
Pit River Tribe v. U.S. Forest Serv., 469 F.3d 768 (9th Cir. 2006)
Pollinator Stewardship Council v. EPA, 806 F.3d 520 (9th Cir. 2015)14, 16
* Pub. Emps. for Envtl. Responsibility v. U.S. Fish and Wildlife Serv., 189 F. Supp. 3d 1 (D.D.C. 2016)
Realty Income Tr. v. Eckerd, 564 F.2d 447 (D.C. Cir. 1977)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989)
Sierra Club v. Van Antwerp, 719 F. Supp. 2d 77 (D.D.C. 2010)
Sierra Club v. FERC, 867 F.3d 1357 (D.C. Cir. 2017)
Sierra Club v. Marsh, 769 F.2d 868 (1st Cir. 1985)
* Sierra Club v. U.S. Army Corps of Eng'rs, 803 F.3d 31 (D.C. Cir. 2015)
Sierra Club v. U.S. Army Corps of Eng'rs, 909 F.3d 635 (4th Cir. 2018)11
Sierra Club v. U.S. Army Corps of Eng'rs, 645 F.3d 978 (8th Cir. 2011)

Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs, 255 F. Supp. 3d 101 (D.D.C. 2017)
Sugar Cane Growers Co-op. of Fla. v. Veneman, 289 F.3d 897 (D.C. Cir. 2002)15
Swan View Coal. v. Weber, 52 F. Supp. 3d 1160 (D. Mont. 2014)
United Steel v. Mine Safety & Health Admin., 925 F.3d 1279 (D.C. Cir. 2019)
W. Watersheds Project v. Zinke, No. 1:18-CV-00187-REB, 2020 WL 959242 (D. Idaho Feb. 27, 2020)
WildEarth Guardians v. Bernhardt, 423 F.Supp.3d 1083 (D. Colo. 2019)
WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41 (D.D.C. 2019)
<u>Statutes</u>
5 U.S.C. § 706(2)(A)
42 U.S.C. § 4321
42 U.S.C. § 4332(2)(C)
Regulations
Army Reg. 405-80 ¶4-1(c)
40 C.F.R. § 1500.1(a)
40 C.F.R. § 1500.1(b)
* 40 C.F.R. § 1500.1(c)
40 C.F.R. § 1502.5

Other Authorities

Benji Jones, 13 stunning photos of supertankers and storage tanks reveal the global oil glut in epic proportions, Business Insider (April 27, 2020)	.17
Concerned Health Professionals of New York & Physicians for Social Responsibility, Compendium of scientific, medical, and media findings demonstrating risks and harms of fracking (unconventional gas and oil extraction) (June 2019)	23
David Blackmon, U.S. shale faces a grim earnings season, Forbes (May 12, 2020)	18
Devika Krishna Kumar & Jennifer Hiller, A hunt for any storage space turns urgent as oil glut grows, Reuters (April 20, 2020)	17
Devika Krishna Kumar & Laila Kearney, 'Like watching a train wreck': The coronavirus effect on North Dakota shale oilfields, Reuters (May 4, 2020)	.19
Devika Krishna Kumar & Liz Hampton, U.S. oil firm Continental Resources halts shale output, seeks to cancel sales, Reuters (April 23, 2020)	.18
Earthworks, Hydraulic Fracturing 101	.22
Editorial, North America's crude oil storage problem: Market fundamentals are pushing storage to its limits, Wood Mackenzie (May 13, 2020)17-	-18
Kathleen Finn et al., Responsible Resource Development and Prevention of Sex Trafficking: Safeguarding Native Women and Children on the Fort Berthold Reservation, 40 HARV. J.L. & GENDER 1 (2017)	.23
Meghan Gordon, North Dakota shuts in 35% of its oil production as rigs sink to 12, S&P Global Market Intelligence (May 15, 2020)	.18
Melissa Krause, Oil boom generated 'perfect storm' for sexual violence, Williston Herald (Oct. 21, 2016)	.23
Namita Shrestha et al., Potential water resource impacts of hydraulic fracturing from unconventional oil production in the Bakken shale, 108 Water Research 1 (Jan. 1, 2017)	.22
National Institute of Environmental Health Sciences, <i>Hydraulic</i> Fracturing & Health	23
North Dakota Department of Mineral Resources, Current Active Drilling Rig List	.18

Case 1:16-cv-01534-JEB Document 522-1 Filed 05/20/20 Page 10 of 36

daily oil production as 6,800 wells idled, West Fargo Pioneer (May 6, 2020)	19
Scott DiSavino, U.S. oil & gas rig count hits record low for second	
week – Baker Hughes, Reuters (May 15, 2020)	18, 19
Stephanie J. Tatham, The Unusual Remedy of Remand without Vacatur,	
Administrative Conference of the United States – Final Report (Jan. 3, 2014)	6
Steve Mufson, Trump faces big decisions on energy industry rescue as	
U.S. runs out of places to store abundance of oil, Wash. Post (April 27, 2020)	17
U.S. Geological Survey, What are the environmental considerations	
of drilling in the Bakken Formation?	20

IDENTITY AND INTEREST OF AMICI CURIAE

Amici are non-profit conservation, community, and Indigenous-led organizations that advocate on behalf of themselves and their members for the protection of the environment and public health, and that support inclusive and well-informed decisionmaking processes. Amici's interests are harmed when fossil fuel infrastructure projects are authorized without being subject to rigorous environmental review. Some of these groups have members that live, work, and recreate near the Dakota Access Pipeline corridor.

Bold Alliance is a network of individuals and not-for-profit environmental- and landowner-rights groups based in Nebraska and other rural states in the Midwest and South. It has more than 92,000 supporters across the country. Bold Alliance advocates for clean energy and works to protect rural landowners and landscapes from fossil fuel projects, in cooperation with Tribal nations, farmers, ranchers, hunters, anglers, and environmentalists. For example, Bold Alliance and its allies have spent years working to raise awareness of the Keystone XL oil pipeline's threats to the people, land, wildlife, and water of Nebraska and other states.

The Center for Biological Diversity ("the Center") is a national non-profit conservation organization dedicated to the protection of endangered species and wild places. The Center currently has 74,504 members and more than 1.7 million online supporters worldwide, including members in all 50 states and the District of Columbia. For many years the Center has worked through science, law, and policy to safeguard fresh water for people, plants, and animals, and specifically to protect communities and species that would be harmed by fossil fuel pipelines. One of the Center's main goals is to protect the habitats and communities that may be adversely affected by fossil fuel infrastructure projects, such as the Dakota Access Pipeline, which threaten waterways with spills and leaks of oil and other contamination that adversely affects water

supplies as well as essential habitat areas and the species that rely on them. The Center's members and staff are concerned about water degradation associated with the Dakota Access Pipeline, which threatens the health and well-being of communities and the survival and recovery of species. Activities that harm waterways and native species or their habitat also harm the Center's staff and members' interests, values, and quality of life.

Dakota Rural Action ("DRA") is a 501(c)(3) non-profit organization registered in Brookings, South Dakota. DRA is a membership organization with nearly one thousand members, the vast majority of whom live in South Dakota. DRA engages in grassroots organizing among farmers, ranchers, landowners, and other residents in South Dakota on issues related to land use and the protection of water resources. DRA has opposed the Dakota Access Pipeline since prior to its construction due to its threat to the water resources of the Standing Rock and Cheyenne River Sioux Tribes and indigenous sacred sites along the pipeline route. DRA's position is that landowner rights and tribal sovereignty should be recognized and respected, including the opportunity for real and meaningful consultation on all projects that may threaten land, water, and communities.

Friends of the Earth ("FoE") is a non-profit advocacy organization founded in 1969. FoE has more than 380,000 members and almost 1.9 million activists across the United States in all 50 states. It is a member of Friends of the Earth International, which is the world's largest grassroots environmental network with 75 affiliates worldwide. FoE's mission is to defend the environment and champion a healthy and just world. Its campaigns work to hold politicians and corporations accountable, transform our economic systems, protect our forests and oceans, halt climate chaos, and revolutionize our food and agriculture systems. Protecting communities and the environment from destructive petroleum pipeline development is one of FoE's top priorities.

Honor the Earth is an Indigenous-led organization working primarily on issues of advocacy and support for Native communities. The organization works nationally and internationally with Indigenous peoples, many of whom are impacted by pipeline projects, including the Dakota Access Pipeline. Honor the Earth has also been involved in protecting water and acknowledging the sacredness of water.

Save Our Illinois Land ("SOIL") is an Illinois not-for-profit organization incorporated on January 3, 2017. SOIL consists of a coalition of community members, organizations, and landowners across Illinois, including the area affected by the Dakota Access Pipeline. SOIL is concerned about the impact of pipeline infrastructure on our land, waterways, the climate, and fellow Illinoisans. SOIL's members are also concerned that the Army Corps of Engineers' failure to fill serious gaps in crucial parts of its analysis to approve the Lake Oahe crossing puts the Illinois decision to approve the Illinois segment of the Dakota Access Pipeline in question.

Sierra Club is the nation's oldest grassroots organization dedicated to the protection and preservation of the environment. Sierra Club has approximately 785,000 members, including chapters in each of the 50 states, as well as more than 3.8 million members and supporters. Sierra Club is dedicated to practicing and promoting the responsible use of the earth's ecosystems and resources; educating and enlisting humanity to protect and restore the quality of the natural and human environment; and using all lawful means to carry out these objectives. The Sierra Club's activities include working to protect communities and the environment from the harmful effects of fossil fuel infrastructure, including oil and gas pipelines.

350.org is a global climate justice organization working towards a fossil free future. With over 170 local groups across the U.S. and hundreds of thousands of volunteers, 350.org builds people power to combat the climate crisis.

Amici support Plaintiffs' requested remedy of vacatur because the Army Corps' failure to prepare an Environmental Impact Statement is a serious error that undermines the core purposes of the National Environmental Policy Act ("NEPA"), including rigorous evaluation of environmental impacts, public disclosure, and fully informed and well-considered agency decisionmaking.

STATEMENT OF COUNSEL

This brief was not authored in whole or part by counsel for a party to this litigation. No person other than Amici or their counsel contributed money to fund preparing or submitting this brief.

INTRODUCTION

The Army Corps of Engineers ("Corps") authorized Dakota Access, LLC ("Dakota Access") to construct a major crude oil pipeline to cross under the Missouri River at Lake Oahe—immediately upstream of the Standing Rock Sioux Tribe's reservation—without fully evaluating the foreseeable environmental consequences. With a current pipeline flow rate of about 600,000 barrels per day (which is only half of its full capacity), a rupture or leak would have devastating impacts on the environment and on members of the Standing Rock and Cheyenne River Sioux Tribes, who "rely on the waters of Lake Oahe in myriad ways, including for drinking, agriculture, industry, and sacred religious and medicinal practices." ECF No. 496 ("Opinion") at 5. Dakota Access should not be allowed to operate its pipeline while crucial questions about oil spill risks—including regarding leak detection systems, operator safety records, winter conditions, and worst-case discharge—"remain unanswered." *Id.* at 2. The core purpose of the National Environmental Policy Act ("NEPA")—"our basic national charter for

protection of the environment"—is to ensure that such questions are answered *before* communities and the environment are exposed to such threats. 40 C.F.R. § 1500.1(a).

The Corps and Dakota Access argue that the Court should decline to apply the presumptive remedy of vacatur and instead allow the unlawful project to continue pumping oil under Lake Oahe. In addition to overlooking both the current oil supply glut and the harmful impacts of oil production, the Corps and Dakota Access also misunderstand the nature of the Corps' NEPA duty on remand. Pipeline operation must be halted while the Corps fully assesses and discloses the pipeline's impacts in an Environmental Impact Statement ("EIS"), and—armed with that knowledge—decides anew whether granting the easement is "in the public interest." Army Reg. 405-80 ¶4-1(c). "Because remand without vacatur ... would incentivize [the] agenc[y] to rubber stamp a new approval, rather than take a true and informed hard look," vacatur best serves NEPA fundamental purpose of ensuring agencies look before they leap. WildEarth Guardians v. Bernhardt, 423 F.Supp.3d 1083, 1105 (D. Colo. 2019).

ARGUMENT

The Supreme Court has stated that under the Administrative Procedure Act, 5 U.S.C. § 706(2)(A), "[i]n all cases agency action must be set aside if the action was arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law." *FCC v. NextWave Personal Commc'ns*, 537 U.S. 293, 300 (2003) (internal quotation omitted). In this Circuit, "vacating a rule or action promulgated in violation of NEPA is the standard remedy." *Humane Soc. of U.S. v. Johanns*, 520 F. Supp. 2d 8, 37 (D.D.C. 2007) (citing *Am. Bioscience, Inc. v. Thompson*, 269 F.3d 1077, 1084 (D.C. Cir. 2001)). *See also Pub. Emps. for Envtl. Responsibility v. U.S. Fish and Wildlife Serv.* (*PEER*), 189 F. Supp. 3d 1, 2 (D.D.C. 2016), *appeal dismissed*, 2016 WL 6915561 (D.C. Cir. Oct. 31, 2016) ("A review of NEPA cases in this district bears out the primacy of

vacatur to remedy NEPA violations."). Remand without vacatur is "unusual" and "uncommon," and there is a presumption against it. Stephanie J. Tatham, *The Unusual Remedy of Remand without Vacatur*, Administrative Conference of the United States – Final Report (Jan. 3, 2014). *See also United Steel v. Mine Safety & Health Admin.*, 925 F.3d 1279, 1287 (D.C. Cir. 2019) (remand without vacatur is "rare").

The D.C. Circuit has held that an inadequately supported rule "need not necessarily be vacated," depending on 1) "the seriousness of the order's deficiencies" and 2) "the disruptive consequences of an interim change that may itself be changed." *Allied-Signal, Inc. v. U.S. Nuclear Regulatory Comm'n*, 988 F.2d 146, 150 (D.C. Cir. 1993). Here, the Corps' failure to prepare an EIS is a serious NEPA violation that undermines the statute's core purpose of informed decisionmaking. The Corps and Dakota Access overstate the potentially disruptive consequences of vacatur, while downplaying the harm that would result from allowing the pipeline to continue operating before the Corps has conducted a rigorous and legally required evaluation of potentially significant impacts.

- I. The Presumptive Remedy of Vacatur is Appropriate Because the Corps' Failure to Prepare a Legally Required EIS Is a "Serious" Deficiency
 - A. The Corps' Failure to Prepare an EIS Undermines NEPA's Core Purpose of Informed Decisionmaking

Congress enacted NEPA "[t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment" and "to promote efforts which will prevent or eliminate damage to the environment." 42 U.S.C. § 4321. NEPA not only declares a national commitment to environmental protection, but also "brings that commitment to bear on the operations of the federal government." *Sierra Club v. FERC*, 867 F.3d 1357, 1367 (D.C. Cir. 2017) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989)). The

statute achieves this by "command[ing] agencies to imbue their decisionmaking, through the use of certain procedures, with our country's commitment to environmental salubrity." *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 193–94 (D.C. Cir. 1991). *See also* 40 C.F.R. § 1500.1(c).

NEPA's "primary function is 'information-forcing,' compelling federal agencies to take a hard and honest look at the environmental consequences of their decisions." *Am. Rivers v. FERC*, 895 F.3d 32, 49 (D.C. Cir. 2018) (internal citations omitted). It also ensures that these consequences are disclosed to the public. "The NEPA duty is more than a technicality; it is an extremely important statutory requirement to serve the public and the agency *before* major federal actions occur." *Found. on Econ. Trends v. Heckler*, 756 F.2d 143, 157 (D.C. Cir. 1985). "The public has an undeniable interest in [an agency's] compliance with NEPA's environmental review requirements and in the informed decision-making that NEPA is designed to promote." *Colo. Wild v. U.S. Forest Serv.*, 523 F. Supp. 2d 1213, 1223 (D. Colo. 2007). *See also Mont. Wilderness Ass'n v. Fry*, 408 F. Supp. 2d 1032, 1038 (D. Mont. 2006) (The "most basic premise of Congress' environmental laws" is that "the public interest is best served when the law is followed.").

To satisfy NEPA's "hard look" requirement, "the Corps must prepare an EIS for any project 'significantly affecting the quality of the human environment." *Nat'l Parks*Conservation Ass'n v. Semonite (NPCA), 916 F.3d 1075, 1082 (D.C. Cir.), amended on reh'g in part, 925 F.3d 500 (D.C. Cir. 2019) (quoting 42 U.S.C. § 4332(2)(C)). The EIS must "identif[y] and rigorously appraise[] the project's environmental effects." *Id.* at 1077. The requirement to prepare an EIS is "[a]t the heart of NEPA." *Sierra Club v. U.S. Army Corps of Eng'rs*, 803 F.3d 31, 37 (D.C. Cir. 2015). It is "[o]ne of the most important procedures NEPA mandates." *Sierra*

Club, 867 F.3d at 1367. Indeed, "the point of NEPA is to require an adequate EIS before a project goes forward." Oglala Sioux Tribe v. U.S. Nuclear Regulatory Comm'n, 896 F.3d 520, 536 (D.C. Cir. 2018) (emphasis added).

This process is designed to ensure that agencies "make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." 40 C.F.R. § 1500.1(c). Here, the agency's decision was not based on a full understanding of environmental consequences. The Corps granted the easement, which allows Dakota Access to pump massive amounts of crude oil under Lake Oahe, without first rigorously analyzing the potentially significant environmental impacts in an EIS. The Corps' failure to prepare an EIS thus severely undermined "NEPA's core focus on improving agency decisionmaking," *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 769 (2004) (citations omitted), thereby frustrating the fundamental purpose of NEPA. *See Oregon Nat. Desert Ass'n v. Zinke*, 250 F. Supp. 3d 773, 774 (D. Or. 2017) (explaining that the seriousness of the defect "should be measured by the effect the error has in contravening the purposes of the statute in question").

B. The Corps' and Dakota Access's Attempts to Downplay the Seriousness of this Deficiency Fail

The Corps argues that its NEPA error is not "so serious as to cast doubt on the Corps' decision to grant the easement." ECF No. 507 ("Corps Br.") at 8. But the Corps' error goes to the integrity of its decisionmaking. *See N. Cheyenne Tribe v. Hodel*, 851 F.2d 1152, 1157 (9th Cir. 1988) ("The decision based on a legally insufficient EIS counts for nothing."). The Corps' insistence that its failure to prepare an EIS "is not 'serious'" is legally incorrect, and underscores the need for vacatur here. Corps' Br. at 1.

The Corps attempts to downplay its NEPA violation as merely a "procedural error." *Id.* at 14. But "NEPA is a purely procedural statute and taking such an approach would vitiate it."

Oglala Sioux, 896 F.3d at 536. See also Pit River Tribe v. U.S. Forest Serv., 469 F.3d 768, 781 (9th Cir. 2006) (citation omitted) ("Because [NEPA] is procedural in nature, we 'will set aside agency actions that are adopted without observance of procedure required by law.""). The procedures that NEPA mandates ensure that an agency understands a project's impacts "before decisions are made and before actions are taken." 40 C.F.R. § 1500.1(b). See also Oglala Sioux, 896 F.3d at 529 (quoting 42 U.S.C. § 4332(2)(C)) ("Congress has directed that, to protect [NEPA's] values, 'all agencies of the Federal Government' must prepare an [EIS] that satisfies NEPA before taking an action"). This process ensures that environmental considerations are integrated "into the very process of agency decision-making." Andrus v. Sierra Club, 442 U.S. 347, 350 (1979).

Here, important questions about the pipeline's operational impacts—including spill-related impacts—remain unanswered. *See* Opinion at 19-34. The four topics highlighted in the Court's opinion are only a "non-extensive selection" of issues showing the need for an EIS. *Id.* at 18. *See also id.* ("While there are many topics to choose from, the Court finds that examining four will be sufficient to demonstrate the amount of unresolved scientific controversy that remains."); *id.* at 36 (noting that "the Court need not discuss the other two NEPA issues on which it remanded"—environmental justice impacts and impacts to the Tribes' hunting and fishing rights—because the Corps will have to revisit those issues in any case).

The EIS ordered by this Court must address unresolved questions about these potentially catastrophic environmental impacts before the pipeline can be allowed to operate. *See Heckler*, 756 F.2d at 157 ("the lack of an adequate environmental consideration looms as a serious, immediate, and irreparable injury"). Informed agency decisionmaking is critical in the face of these impacts, particularly in light of the "special significance" that Lake Oahe holds for the

Tribes. Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs, 255 F. Supp. 3d 101, 114 (D.D.C. 2017). See also id. (explaining that Standing Rock members rely on Lake Oahe waters to service homes, schools, a hospital, clinic, businesses and government buildings, and to support agriculture and industrial activities; that the Lake is the primary source of water for the Cheyenne River Reservation; and that both Tribes consider the waters to be sacred and central to their practice of religion); Comm. to Save the Rio Hondo v. Lucero, 102 F.3d 445, 448-49 (10th Cir. 1996) ("The injury of an increased risk of harm due to an agency's uninformed decision is precisely the type of injury the National Environmental Policy Act was designed to prevent.").

The Environmental Assessment is not a substitute for the EIS. ECF No. 510 ("Dakota Access Br.") at 10-11. "Congress created the EIS process to provide robust information in situations precisely like this one, where, following an environmental assessment, the scope of a project's impacts remains both uncertain and controversial." *NPCA*, 916 F.3d at 1087-88. *See also Sierra Club v. Marsh*, 769 F.2d 868, 875 (1st Cir. 1985) (Breyer, J.) (holding that "we cannot accept [an Environmental Assessment] as a *substitute* for an EIS . . . because an EA and an EIS serve very different purposes").

The Corps seems to fundamentally misunderstand its task on remand. The agency maintains that its failure to prepare an EIS "does not detract" from its conclusion that the easement "meets the substantive requirements of the MLA." Corps. Br. 10. But its conclusion that the project is "in the public interest" was based on an incomplete understanding of the pipeline's impacts. Army Reg. 405-80 ¶4-1(c). Because the Corps failed to fully assess these environmental impacts, it could not take "proper account of [them] in making a decision with a likely significant impact on the environment." *Sierra Club*, 769 F.2d at 875.

In other words, the Corps' flawed NEPA review goes to the integrity of its decisionmaking, not the adequacy of its explanation. This is not a situation where the agency "may be able readily to cure a defect in its explanation of a decision," *Heartland Reg'l Med. Ctr. v. Sebelius*, 566 F.3d 193, 198 (D.C. Cir. 2009), or has been tasked with "rehabilitat[ing] its rationale for [a] regulation." *Comcast Corp. v. FCC*, 579 F.3d 1, 9 (D.C. Cir. 2009). *See also Sierra Club v. U.S. Army Corps of Eng'rs*, 909 F.3d 635, 655 (4th Cir. 2018) (citation omitted) ("*Allied-Signal*'s use of the remedy of remand without vacatur principally is relevant in matters where agencies have 'inadequately supported rule[s]."). Rather, the new NEPA analysis is meant to actually inform the agency's decision.

Accordingly, any argument that the pipeline should continue to operate during remand because the Corps' NEPA violation is merely "procedural" is unavailing. The point of additional environmental review is not to generate paperwork to defend a decision that the Corps has already made. *See* 40 C.F.R. § 1500.1(c) ("Ultimately, of course, it is not better documents but better decisions that count."). On remand, the Corps must fully assess and disclose impacts in an EIS, and then make an impartial and informed decision based on that analysis. *See Sierra Club*, 803 F.3d at 43 ("More extensive environmental analysis could lead the agencies to different conclusions..."). Suggesting that preparing an EIS will have little or no bearing on the outcome undermines NEPA, and underscores why vacatur is essential to facilitate objective environmental review that is not just an exercise in paperwork to support a predetermined outcome.

C. Vacatur Protects the Integrity of the NEPA Process

Vacatur would protect the integrity of the NEPA process by ensuring that the Corps accomplishes its duties on remand in the manner NEPA contemplates, rather than reducing the NEPA process to "a mere bureaucratic formality." *Diné CARE v. OSM*, No. 12-cv-1275-JLK,

2015 WL 1593995, at *3 (D. Colo. Apr. 6, 2015), abrogated on other grounds by Dine Citizens Against Ruining Our Env't v. U.S. Office of Surface Mining Reclamation & Enf't, 643 Fed.

Appx. 799, 800 (10th Cir. 2016). An EIS is meant to objectively assess a project's impacts before a decision is made, "not ... to rationalize or justify decisions already made." 40 C.F.R. § 1502.5. Especially in light of the Corps' attempts to downplay the seriousness of its error, see section I.B., supra, NEPA's "goals of deliberative, non-arbitrary decision-making would seem best served by the agenc[y] approaching these actions with a clean slate." High Country Conservation Advocates v. U.S. Forest Serv., 67 F. Supp. 3d 1262, 1265 (D. Colo. 2014). See also N. Cheyenne Tribe, 851 F.2d at 1157 ("Bureaucratic rationalization and bureaucratic momentum are real dangers, to be anticipated and avoided by the [agency].").

Remand without vacatur, on the other hand, would undermine the integrity of the NEPA process by reducing it to a pro forma exercise in support of a predetermined outcome. *See WildEarth Guardians*, 423 F.Supp.3d at 1104. The approach preferred by the Corps and Dakota Access "would not satisfy NEPA's purpose of ensuring that federal agencies meaningfully consider the potential environmental impacts of a proposed action *before* undertaking that action." *W. Watersheds Project v. Zinke*, No. 1:18-CV-00187-REB, 2020 WL 959242, at *30 (D. Idaho Feb. 27, 2020) (citations omitted). *See also Mont. Wilderness Ass'n*, 408 F. Supp. 2d at 1038-39 (enjoining pipeline operations for NEPA violations after discussing the difficulty of an agency "fulfill[ing] its procedural obligations without favoring a predetermined outcome").

Thus, halting the flow of crude oil in the pipeline will help ensure the integrity of the Corps' decisionmaking on remand, and protect the Tribes from the very impacts that the Corps has yet to comprehensively analyze in an EIS. *See Sierra Club*, 803 F.3d at 43 (noting that an order "enjoining operation of the pipeline, pending further analyses of the pipeline's

environmental impact, would provide some degree of 'effectual relief.'"). In the absence of vacatur, Dakota Access would be able to continue to take actions that pose serious risks to the environment and the Tribes during the EIS process. That would undermine NEPA's requirement that an agency rigorously evaluate environmental consequences before a project moves forward, and would not provide an effective remedy for the Corps' NEPA violation.

In sum, vacatur will help ensure that the Corps fully and fairly considers impacts before deciding whether to grant the easement, thereby vindicating NEPA's purpose of informed decisionmaking. Allowing the oil pipeline to operate during remand, on the other hand, would undermine NEPA's "look-before-you-leap" requirement and reduce the Corps' duties on remand to a paperwork exercise. Because the Corps has committed a serious NEPA violation by failing to prepare a legally required EIS, the Court should apply the presumptive remedy and vacate the unlawful easement.

II. Any Disruptive Consequences Do Not Warrant Remand Without Vacatur

A. The Risk of Serious Irreparable Environmental Harm Caused by a Spill Outweighs Any Economic Harm from Halting the Flow of Oil

Allied-Signal's second element does not mandate remand without vacatur in every case where there is some "disruption." Indeed, there is likely to be disruption in any NEPA case where a project has gone forward notwithstanding defective environmental review. If temporarily stopping activities "were enough to carry the day, then it seems vacatur would never be appropriate." PEER, 189 F. Supp. 3d at 4. Instead, it is the default remedy. See also Sierra Club, 803 F.3d at 43 (explaining that if the NEPA analysis were legally inadequate, the court could order that the oil pipeline be closed or impose restrictions on its use until the agency complied with NEPA).

Under the second *Allied-Signal* factor, courts largely focus on potential environmental, as opposed to economic, disruption. As a result, even where courts have remanded without vacatur, they have declined to do so "on the basis of alleged economic harm alone." *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 84 n.35 (D.D.C. 2019). *See also PEER*, 189 F. Supp. 3d at 3 ("it is not clear that economic concerns are as relevant in an environmental case" when weighing disruptive consequences); *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 738 (9th Cir. 2001) ("[L]oss of anticipated revenues . . . does not outweigh the potential irreparable damage to the environment."), *abrogated on other grounds by Monsanto*, 561 U.S. 139; *League of Wilderness Defs./Blue Mountains Biodiversity Project v. Connaughton*, 752 F.3d 755, 766 (9th Cir. 2014) (irreparable environmental injuries outweigh temporary economic harms); *Indigenous Envtl. Network v. U.S. Dep't of State*, 369 F. Supp. 3d 1045, 1051-52 (D. Mont. 2018) (concluding potential environmental damage to the public outweighed any energy security and economic benefits provided by Keystone XL pipeline).

Notably, Plaintiffs here do not seek to have the pipeline removed. *Cf. Nat'l Parks Conservation Ass'n v. Semonite*, 422 F. Supp. 3d 92, 100 (D.D.C. 2019). Rather, they seek to prevent its use, and the concomitant potential for serious environmental harm, until the Corps complies with NEPA. The Corps' concerns about waste from dismantling and rebuilding the pipeline are thus unfounded. Corps Br. at 2.

B. Remand Without Vacatur Is Only Appropriate in Limited Circumstances Not Present Here

Remand without vacatur is appropriate in limited circumstances, such as where vacatur would cause serious environmental injury or undermine the purpose of the statute at issue. *See Pollinator Stewardship Council v. EPA*, 806 F.3d 520, 532 (9th Cir. 2015) (confirming that the *Allied-Signal* inquiry centers on "whether vacating a faulty rule could result in possible

environmental harm"). Accordingly, the D.C. Circuit has remanded invalid rules without vacating them in cases where vacatur would "nullify[] an environmental or health regulation central to public safety." AFL-CIO v. Chao, 496 F. Supp. 2d 76, 92 (D.D.C. 2007). See, e.g., North Carolina v. EPA, 550 F.3d 1176, 1178 (D.C. Cir. 2008) ("[I]t is appropriate to remand without vacatur in particular occasions where vacatur 'would at least temporarily defeat ... the enhanced protection of the environmental values covered by [the EPA rule at issue]." (quoting Envtl. Def. Fund, Inc. v. EPA, 898 F.2d 183, 190 (D.C. Cir. 1990) (alteration in original)); Nat. Res. Def. Council v. EPA, 489 F.3d 1250, 1265 (D.C. Cir. 2007) (Rogers, J., concurring in part and dissenting in part) ("Where the court has concluded that a final rule is deficient, the court has traditionally not vacated the rule if doing so would have serious adverse implications for public health and the environment."). See also Cal. Cmtys. Against Toxics v. EPA, 688 F.3d 989 (9th Cir. 2012) (declining to vacate Clean Air Act rule where doing so could exacerbate air pollution, "the very danger the Clean Air Act aims to prevent"); 1 Idaho Farm Bureau Fed'n v. Babbitt, 58 F.3d 1392, 1405-06 (9th Cir. 1995) (keeping rule in place to avoid potential extinction of species); Ctr. for Food Safety v. Vilsack, 734 F. Supp. 2d 948, 951-52 (N.D. Cal. 2010).

This approach makes sense where leaving a weak regulation in place during remand provides greater environmental protection than having no rule at all. Those circumstances are not present here. In addition, this is not a case where vacatur would upend an entire regulatory system in a manner that cannot be undone. *Cf. Heartland Reg'l Med. Ctr.*, 566 F.3d at 198; *Sugar Cane Growers Co-op. of Fla. v. Veneman*, 289 F.3d 89, 97 (D.C. Cir. 2002). Instead,

¹ In *California Communities Against Toxics v. EPA*, 688 F.3d 989 (9th Cir. 2012), a "combination of economically *and* environmentally harmful consequences led the Ninth Circuit to affirm the order of remand without vacatur." Order Am. Summ. J. & Den. Defs.' Mots. for Stay Pending Appeal, *N. Plains Res. Council v. U.S. Army Corps of Eng'rs*, No. 19-cv-44, at 13 (D. Mont. May 11, 2020). That case "demonstrates the *limited* nature of remanding an invalid agency action without vacating the action." *Id.* at 12 (emphasis added).

vacatur would preclude operation of a single pipeline, which would prevent oil spill impacts that the Corps has yet to fully evaluate or disclose. Unlike the cases relied upon by the Corps and Dakota Access, this is the typical NEPA case where vacatur would "prevent significant [environmental] harm." *Sierra Club v. Van Antwerp*, 719 F. Supp. 2d 77, 80 (D.D.C. 2010). *See also Pollinator Stewardship Council*, 806 F.3d at 532 (finding vacatur appropriate when leaving agency action in place "risks more potential environmental harm than vacating it").

C. Dakota Access's Decision to Proceed With Pipeline Construction and Operation Despite the Circumstances Renders Any Economic Harm Self-Inflicted

The history of this case shows that the Corps understood that an EIS was required: after publishing a notice of intent to prepare an EIS, the Corps suddenly changed its mind and issued the easement following the change of administration in 2017. See Opinion at 6-7. See also Swan View Coal. v. Weber, 52 F. Supp. 3d 1160, 1162 (D. Mont. 2014) ("the troubles complained of resulted from [the agency's] failure to follow the law in the first instance"). Dakota Access was aware of this—as well as the significant public controversy and ongoing litigation challenging the pipeline—but chose to proceed with construction and operation. The Corps and Dakota Access thus knowingly assumed the risk of vacatur. See WildEarth Guardians, 368 F. Supp. at 84 n.35 (citation omitted) ("the risk of economic harm from procedural delay and industrial inconvenience is the nature of doing business, especially in an area fraught with bureaucracy and litigation"); Sierra Club v. U.S. Army Corps of Eng'rs, 645 F.3d 978, 998 (8th Cir. 2011) (enjoining power plant permit where proponent "repeatedly ignor[ed] administrative and legal challenges and a warning by the Corps that construction would proceed at its own risk"); Davis v. Mineta, 302 F.3d 1104, 1116 (10th Cir. 2002), abrogated on other grounds by Dine Citizens Against Ruining Our Env't v. Jewell, 839 F. 3d 1276 (10th Cir. 2016) (finding defendants

"'jumped the gun' on the environmental issues by entering into contractual obligations that anticipated a pro forma result . . . [and] are largely responsible for their own harm").

Dakota Access's self-inflicted economic harm does not warrant departing from the default remedy for a serious NEPA violation. The risk of an oil spill (which would be largely borne by the Tribes), and the public interest in ensuring that the Corps fully considers environmental impacts *before* taking action, outweigh any temporary economic harm to Dakota Access. *See also Realty Income Tr. v. Eckerd*, 564 F.2d 447, 456 (D.C. Cir. 1977) ("The substantial additional costs which would be caused by court-ordered delay' may well be justified by the compelling public interest in the enforcement of NEPA.").

D. The Current Global Oil Supply Glut Undermines Claims Regarding the Disruptive Consequences of Halting Pipeline Operation During Remand

Dakota Access's assertions regarding the impact of vacatur on oil supplies are overstated. There is currently a glut of oil on the market. As a result of excess supplies, there is "a massive amount of oil with nowhere to go." Benji Jones, 13 stunning photos of supertankers and storage tanks reveal the global oil glut in epic proportions, Business Insider (April 27, 2020). See also Steve Mufson, Trump faces big decisions on energy industry rescue as U.S. runs out of places to store abundance of oil, Wash. Post (April 27, 2020); Devika Krishna Kumar & Jennifer Hiller, A hunt for any storage space turns urgent as oil glut grows, Reuters (April 20, 2020)⁴ ("The hunt for storage points to the magnitude of the collapse in demand for U.S. shale and the huge volume of unsold oil to refiners who are cutting purchases."); Editorial, North America's crude oil

² https://www.businessinsider.com/13-photos-reveal-the-epic-oil-glut-in-new-proportions-2020-4 https://www.washingtonpost.com/climate-environment/trump-faces-big-decisions-on-energy-

industry-rescue-as-us-runs-out-of-places-to-store-abundance-of-oil/2020/04/26/fe0f6ee8-8632-11ea-a3eb-e9fc93160703 story.html

⁴ https://www.reuters.com/article/us-global-oil-storage-fracking/a-hunt-for-any-storage-space-turns-urgent-as-oil-glut-grows-idUSKBN2230I3

storage problem: Market fundamentals are pushing storage to its limits, Wood Mackenzie (May 13, 2020), https://www.woodmac.com/news/editorial/crude-oil-storage-problem ("Energy Transfer Partners is considering idling two [natural gas liquids] pipelines to turn them into crude storage; elsewhere, newly built pipelines are being converted to long-term commercial storage in the next few months.").

As oil storage fills up across the world, producers have started to cut production. In North Dakota, about 7,500 of the state's approximately 16,000 wells have shut in since early March. Meghan Gordon, North Dakota shuts in 35% of its oil production as rigs sink to 12, S&P Global Market Intelligence (May 15, 2020), https://www.spglobal.com/marketintelligence/en/newsinsights/latest-news-headlines/north-dakota-shuts-in-35-of-its-oil-production-as-rigs-sink-to-12-58662425. As a result, production has fallen by approximately 500,000 barrels per day. *Id. See* also Current Active Drilling Rig List, N.D. Dep't of Mineral Res. (last visited May 17, 2020), https://www.dmr.nd.gov/oilgas/riglist.asp (showing 13 active rigs in North Dakota on May 17, 2020, as compared to 66 on May 17, 2019). The largest oil producer in North Dakota, Continental Resources Inc., has "stopped all drilling and shut in most of its wells in the state's Bakken shale field." Devika Krishna Kumar & Liz Hampton, U.S. oil firm Continental Resources halts shale output, seeks to cancel sales, Reuters (April 23, 2020). During a recent investor call, Continental "said it plans to scale back its own drilling program for the remainder of 2020...." David Blackmon, U.S. shale faces a grim earnings season, Forbes (May 12, 2020).6 See also Scott DiSavino, U.S. oil & gas rig count hits record low for second week – Baker

⁻

⁵ https://www.reuters.com/article/us-continental-resources-shale-north-dak/us-oil-firm-continental-resources-halts-shale-output-seeks-to-cancel-sales-idUSKCN2260PX

⁶ https://www.forbes.com/sites/davidblackmon/2020/05/12/a-grim-earnings-season-for-the-us-shale-business/#667837bc1cf2

Hughes, Reuters (May 15, 2020)⁷ ("Analysts expect energy firms to keep chopping rigs for the rest of the year and that they will be hesitant to activate new units in 2021 and 2022.").

This global supply glut and drop in oil production undermine claims regarding the purported need for oil transported by the pipeline (as well as claims that vacatur would cause a dramatic shift to oil transport by rail). It also undermines arguments that vacatur would be the cause of any economic impacts resulting from decreased oil production. Bakken oil producers have already dramatically cut oil production. *See also id.* ("[E]nergy specialists at U.S. investment bank Piper Sandler[] forecast the U.S. rig count would fall from an annual average of 943 in 2019 to 528 in 2020, 215 in 2021 and 221 in 2022.").

Hess Corporation, for example, claims that vacatur would cause it to shut in wells, which would be costly to re-start. *Compare* ECF No. 515 (Hess Corp. Amicus Br.) at 9 ("It can easily cost \$200,000 per well or more to perform the workover, re-stimulation, and other maintenance activities required to restart production from these shut-in wells") *to* Patrick Springer, "*Staggering'* 450,000-barrel drop in North Dakota's daily oil production as 6,800 wells idled, West Fargo Pioneer (May 6, 2020)⁸ ("The cost of returning an oil well to production ranges from \$25,000 to \$50,000, according to state figures."). But for reasons unrelated to this litigation, Hess Corporation expects "to halt drilling on five of its six rigs in the Bakken by the end of May." Devika Krishna Kumar & Laila Kearney, 'Like watching a train wreck': The coronavirus effect on North Dakota shale oilfields, Reuters (May 4, 2020). 9

⁷ https://www.reuters.com/article/usa-rigs-baker-hughes/us-oil-gas-rig-count-hits-record-low-for-second-week-baker-hughes-idUSL1N2CU248

⁸ https://www.westfargopioneer.com/6480839-Staggering-450000-barrel-drop-in-North-Dakotas-daily-oil-production-as-6800-wells-idled

⁹ https://www.reuters.com/article/us-global-oil-shale-north-dakota-insight/like-watching-a-train-wreck-the-coronavirus-effect-on-north-dakota-shale-oilfields-idUSKBN22G1C2

As a result, many of the economic consequences that Dakota Access and industry *amici* forecast—such as the anticipated cost of returning shut-in wells to production—are not attributable to vacatur of the Corps' easement. Accordingly, even if claims regarding economic harm were found to be relevant in this environmental case, the Court should not depart from the default remedy of vacatur. *See PEER*, 189 F. Supp. 3d at 3 (finding agency failed to "make a compelling case" to "depart[] from the presumptive remedy of vacatur" where the "forecasted harms [were] imprecise or speculative").

E. Oil Production From the Bakken Shale Formation Adversely Impacts the Environment, Human Health, and Local Communities

In discussing the potential consequences of vacatur on oil production, Dakota Access and industry *amici* also ignore that drilling and fracking in the Bakken have a wide range of harmful impacts on the environment, human health, and communities. *See, e.g.*, Dakota Access Br. at 35. Extensive empirical data confirms that "the public health risks from unconventional gas and oil extraction are real, the range of adverse environmental impacts wide, and the negative economic consequences considerable." Concerned Health Professionals of New York & Physicians for Social Responsibility, *Compendium of scientific, medical, and media findings demonstrating risks and harms of fracking (unconventional gas and oil extraction)* at 19 (June 2019), http://concernedhealthny.org/compendium (hereinafter "Compendium").

Drilling in the Bakken implicates a number of environmental issues, including air pollution; the amount of water initially required to hydraulically fracture ("frack") the well; disposal of the poor-quality water produced with the oil; groundwater contamination; oil spills; land surface disturbance; and disruption of wildlife. What are the environmental considerations of drilling in the Bakken Formation?, U.S. Geological Survey, https://www.usgs.gov/faqs/whatare-environmental-considerations-drilling-bakken-formation?qt-news_science_products=0#qt-

news_science_products. Several of these environmental impacts associated with fracking contribute to adverse public health impacts, including:

air pollution (particulate matter, ozone, diesel exhaust, and VOCs) that could affect respiratory health; drinking water contamination from underground migration of methane and/or fracking chemicals associated with faulty well construction or seismic activity; drinking water contamination from inadequate water treatment of fracking waste or from surface spills of fracking chemicals or wastewater; earthquakes and the creation of fissures; increased vehicle traffic; increased noise; increased demand for housing and medical care; and public health problems related to climate change impacts from methane and other greenhouse gas emissions into the atmosphere.

Compendium at 169.

Drilling sites can affect local air quality in several ways. "[T]he burning off, or flaring, of excess natural gas; the operation of heavy equipment at the well site; and the use of diesel trucks to transport materials to and from a site may all contribute to air pollution." Hydraulic Fracturing & Health, National Institute of Environmental Health Sciences, https://www.niehs.nih.gov/health/topics/agents/fracking/index.cfm. In addition, the chemicals and sand used in the fracking process, as well as other chemicals that surface with the gas, can become airborne and affect air quality. *Id.* In the air around drilling and fracking operations, "researchers have measured strikingly high levels of toxic pollutants, including the potent carcinogen benzene and the chemical precursors of ground-level ozone (smog)." Compendium at 20. Of the more than 200 airborne chemical contaminants that have been detected near these sites, 61 are classified as hazardous air pollutants (including carcinogens) and 26 are endocrinedisrupting compounds linked to reproductive, developmental, and neurological damage. *Id.* at 25. Drilling and fracking operations also "emit fine particles and vapors that combine to create ground-level ozone (smog)." *Id.* Exposure to these air pollutants "is known to cause premature death, exacerbate asthma, and contribute to poor birth outcomes and increased rates of hospitalization and emergency room visits." *Id.* Drilling and fracking operations in the Bakken

shale field "alone contribute two percent of global ethane emissions and directly impact air quality across North America." *Id.* at 46.

Drilling and fracking operations also impact water resources. For example, unconventional oil production from the Bakken shale formation generates a voluminous amount of saline wastewater characterized by elevated levels of toxic and radioactive substances. *See* Namita Shrestha *et al.*, *Potential water resource impacts of hydraulic fracturing from unconventional oil production in the Bakken shale*, 108 Water Research 1, 1-24 (Jan. 1, 2017), https://doi.org/10.1016/j.watres.2016.11.006. A Duke University study found that "accidental spills of fracking wastewater have contaminated surface water and soils throughout North Dakota." Compendium at 88. *See also id.* at 34 ("A 2018 simulation study of radium-226 in fracking wastewater from North Dakota's Bakken Shale found potential risk to human health from fracking wastewater spills into surface water.").

Human exposure to the chemicals used in fracking fluid is also a concern. This exposure can occur "by ingesting chemicals that have spilled and entered drinking water sources, through direct skin contact with the chemicals or wastes (e.g., by workers, spill responders or health care professionals), or by breathing in vapors from flowback wastes stored in pits or tanks." *See Hydraulic Fracturing 101*, Earthworks, https://earthworks.org/issues/hydraulic_fracturing_101. Of the more than 1,000 chemicals confirmed to be ingredients in fracking fluid, approximately 100 are "known endocrine disruptors, acting as reproductive and developmental toxicants." Compendium at 68. "Adding to this mix are heavy metals, radioactive elements, brine, and volatile organic compounds (VOCs), which occur naturally in deep geological formations and which can be carried up from the fracking zone with the flowback fluid." *Id*.

In addition to air and water pollution impacts, other negative impacts on communities include "increased noise, light, and traffic; heavier burdens on local infrastructure and resources, such as roads and hospitals; higher rates of crime and substance abuse; and changes to community character." *Hydraulic Fracturing & Health*, National Institute of Environmental Health Sciences, https://www.niehs.nih.gov/health/topics/agents/fracking/index.cfm. *See also* Melissa Krause, *Oil boom generated 'perfect storm' for sexual violence*, Williston Herald (Oct. 21, 2016); ¹⁰ Kathleen Finn *et al.*, *Responsible Resource Development and Prevention of Sex Trafficking: Safeguarding Native Women and Children on the Fort Berthold Reservation*, 40 HARV. J.L. & GENDER 1, 2 (2017) (finding that the influx of oil workers "living in temporary housing often referred to as 'man camps,' has coincided with a disturbing increase in sex trafficking of Native women" in North Dakota); Compendium at 28 ("Fatality rates among workers in the oil and gas extraction sector in North Dakota were seven times the national fatality rates in this industry, which itself has more deaths from fires and explosions than any other private industry.").

CONCLUSION

For the reasons discussed above, Amici respectfully request that the Court vacate the Corps' easement authorizing the Dakota Access Pipeline to cross under Lake Oahe.

¹⁰ https://www.willistonherald.com/community/oil-boom-generated-perfect-storm-for-sexual-violence/article_35800e84-9729-11e6-b03c-2feafe5fa382.html

DATED: May 20, 2020

Respectfully submitted,

/s/ Elizabeth F. Benson
Elizabeth F. Benson
CA State Bar No. 268851
(signing per LCvR 83.2(c)(1))
Sierra Club
2101 Webster Street, Suite 1300
Oakland, CA 94612
Telephone: (415) 977-5723
elly.benson@sierraclub.org

Counsel for Amici Curiae

/s/ Karimah Schoenhut
Karimah Schoenhut
D. D.C. Bar No. PA0060
D.C. Bar No. 1028390
(joining with non-member per LCvR 83.2(c)(1))
Sierra Club
50 F Street, NW 8th Floor
Washington, DC 20001
Telephone: (202) 548-4584
karimah.schoenhut@sierraclub.org

CERTIFICATE OF COMPLIANCE

Pursuant to Rules 29(a)(4)(G) and 32(g)(1) of the Federal Rules of Appellate Procedure and LCvR 7(o)(5), I hereby certify that the foregoing complies with LCvR 7(o)(4) because it does not exceed 25 pages.

/s/ Karimah Schoenhut
Karimah Schoenhut
D. D.C. Bar No. PA0060
D.C. Bar No. 1028390
Sierra Club
50 F Street, NW 8th Floor
Washington, DC 20001
Telephone: (202) 548-4584

Counsel for Amici Curiae

CERTIFICATE OF SERVICE

I hereby certify that on this 20th day of May, 2020, I caused a true and correct copy of the foregoing document to be served on all parties of record via the CM/ECF system.

/s/ Karimah Schoenhut
Karimah Schoenhut
D. D.C. Bar No. PA0060
D.C. Bar No. 1028390
Sierra Club
50 F Street, NW 8th Floor
Washington, DC 20001
Telephone: (202) 548-4584

Counsel for Amici Curiae