UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

STANDING ROCK SIOUX TRIBE, *et al.*, **Plaintiffs,** **v.** **U.S. ARMY CORPS OF ENGINEERS, *et al.*,** **Defendants.**	**Civil Action No. 16-1534 (JEB)**

MEMORANDUM OPINION

The Court returns once more to the segment of the Dakota Access Pipeline running under the Missouri River and to its effects on the Indian Tribes living nearby. In February 2017, Defendant U.S. Army Corps of Engineers concluded that granting an easement for the crossing would yield no significant environmental impact, thus exempting the agency from having to prepare an Environmental Impact Statement under the requirements of the National Environmental Policy Act. In these consolidated cases, several Tribes whose reservations lie near Lake Oahe challenge that decision.

In one of its many prior Opinions in this case, the Court held that the agency's decision "not to issue an EIS largely complied with NEPA." Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs (Standing Rock III), 255 F. Supp. 3d 101, 147 (D.D.C. 2017). "Yet there [we]re substantial exceptions" to such compliance, one of which being the agency's failure to address expert comments noting that the pipeline suffered from serious flaws that could result in extensive environmental harm in the event of a spill. Id. The Court thus ordered the Corps to

consider these issues on remand. Id. at 160. That remand is now complete, and the Tribes, not surprisingly, strongly disagree with the Corps' most recent conclusions.

In analyzing those conclusions, this Court has received significant guidance from a recent case decided by the D.C. Circuit, National Parks Conservation Association v. Semonite, 916 F.3d 1075, 1082 (D.C. Cir. 2019). The appeals court there clarified the inquiry to be conducted by a district court when determining whether an agency has adequately dealt with expert criticisms such as these. Applying Semonite, this Court ultimately concludes that too many questions remain unanswered. Unrebutted expert critiques regarding leak-detection systems, operator safety records, adverse conditions, and worst-case discharge mean that the easement approval remains "highly controversial" under NEPA. As the Court thus cannot find that the Corps has adequately discharged its duties under that statute, it will remand the matter to the agency to prepare an Environmental Impact Statement.

I. Background

In order to reacquaint the reader with the landscape against which this dispute unfolds, the Court will first briefly set out the statutory framework of NEPA. It will then separately discuss the factual background, the procedural history, and the recent remand and resulting claims.

A. Statutory and Regulatory Scheme

The National Environmental Policy Act requires agencies to "consider every significant aspect of the environmental impact of a proposed action," Baltimore Gas & Elec. Co. v. NRDC, 462 U.S. 87, 97 (1983) (quoting Vt. Yankee Nuclear Power Corp v. NRDC, 435 U.S. 519, 553 (1978)), so as to "inform the public that it has indeed considered environmental concerns in its decisionmaking process." Id. (citing Weinberger v. Catholic Action of Haw., 454 U.S. 139, 143

(1981)). In order to achieve these goals, NEPA imposes on agencies certain procedural requirements, Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 193–94 (D.C. Cir. 1991), but it "does not mandate particular consequences." Id. at 194.

First, an agency must draft an Environmental Assessment, see 40 C.F.R. § 1501.4(b), that "[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an environmental impact statement [EIS] or a finding of no significant impact [FONSI]." Id. § 1508.9(a). "If any 'significant' environmental impacts might result from the proposed agency action[,] then an EIS must be prepared before agency action is taken." Grand Canyon Trust v. FAA, 290 F.3d 339, 340 (D.C. Cir. 2002) (quoting Sierra Club v. Peterson, 717 F.2d 1409, 1415 (D.C. Cir. 1983)); see also 42 U.S.C. § 4332(2)(C) (requiring a statement of the environmental impact of any proposed action "significantly affecting the quality of the human environment"). If, on the other hand, the agency determines that no EIS is required, it must prepare either a FONSI or a Mitigated FONSI, depending on whether the lack of significant impact results from an agency's commitment to mitigation measures. See 40 C.F.R. §§ 1501.4(e), 1508.13; Council on Environmental Quality, Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact 2, 7 (2011), https://ceq.doe.gov/docs/ceq-regulations-and-guidance/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf.

In order to determine whether its actions may result in "significant" environmental impacts — and therefore whether it must prepare an EIS — an agency must examine both the "context" and the "intensity" of the action. See 40 C.F.R. § 1508.27. When looking at intensity, an agency must consider ten factors, id. § 1508.27(b), and "[i]mplicating any one of the[se] factors may be sufficient to require development of an EIS." Semonite, 916 F.3d at 1082 (citing Grand Canyon Trust, 290 F.3d at 347). Relevant here is the fourth of these factors — *viz.*, "[t]he

degree to which the effects on the quality of the human environment are likely to be highly controversial." 40 C.F.R. § 1508.27(b)(4). This factor will be discussed at length below. See *infra* Section III.A.1.

Although not in the above-described list of ten factors, two other issues require the Corps' attention under its NEPA obligations. First, in this Circuit, NEPA creates, through the Administrative Procedure Act, a right of action deriving from Executive Order 12,898. This order requires federal agencies to "make achieving environmental justice part of their mission" — "[t]o the greatest extent practicable and permitted by law" — "by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of [their] programs, policies, and activities on minority populations and low-income populations." 59 Fed. Reg. 7629 (Feb. 11, 1994), § 1-101; see Cmtys. Against Runway Expansion, Inc. v. FAA, 355 F.3d 678, 688–89 (D.C. Cir. 2004) (recognizing right to environmental-justice review under NEPA and APA). Indian tribes are one of the populations that must be considered. See Council on Envtl. Quality, Environmental Justice: Guidance Under the National Environmental Policy Act 9 (1997), https://ceq.doe.gov/docs/ceq-regulations-and-guidance/regs/ej/justice.pdf.

Second, the parties agreed during the first round of summary-judgment briefing that NEPA additionally requires an agency to determine how a project will affect a tribe's treaty rights, in this case those arising from the Fort Laramie Treaty of 1851. Standing Rock III, 255 F. Supp. 3d at 130–31 (citing Fort Laramie Treaty of 1851, art. 5, 11 Stat. 749, 1851 WL 7655). As relevant at this stage, the Corps is required to consider how the pipeline would affect the Tribes' hunting and fishing resources. Id. at 130–32; see 11 Stat. 749, art. 5 (reserving to Tribes "the privilege of hunting" and "fishing" on treaty lands).

B. Factual History

As the issues present in the current round of briefing are fairly cabined, the Court will provide only an abbreviated version of the factual history laid out in its prior Opinions in this case. See, e.g., Standing Rock III, 255 F. Supp. 3d at 114–16.

The Dakota Access Pipeline, designed to carry crude oil from North Dakota to Illinois, crosses several waterways along its 1,200-mile path. Id. at 114 (citing Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs (Standing Rock I), 205 F. Supp. 3d 4, 7 (D.D.C. 2016)). One of these is Lake Oahe, an artificial reservoir in the Missouri created by construction of a dam in 1958. Id. (citing Standing Rock I, 205 F. Supp. 3d at 13). The "lake" begins near Bismarck, North Dakota, and extends about 231 miles south, ending at the Oahe Dam in South Dakota. See ECF No. 172-1 (Final EA) at 35. In creating Lake Oahe, Congress effected a taking of 56,000 acres from Standing Rock's Reservation and 104,420 acres from the trust lands of the Cheyenne River Sioux Tribe. Standing Rock III, 255 F. Supp. 3d at 114 (citing Act of Sept. 2, 1958, Pub. L. No. 85-915, 72 Stat. 1762). The Tribes now rely on the waters of Lake Oahe in myriad ways, including for drinking, agriculture, industry, and sacred religious and medicinal practices. Id.; see, e.g., ECF No. 289-3 (Declaration of Faith Spotted Eagle), ¶¶ 5–22.

As the first step in determining whether it would permit Dakota Access to construct a portion of DAPL under Lake Oahe, the Corps published a Draft EA, finding that it would not need to prepare the more involved EIS. Standing Rock III, 255 F. Supp. 3d at 115–16; ECF No. 6-19 (Draft EA) at 1. The Tribes and the Department of the Interior commented, both urging the Corps to go further and prepare an EIS. Standing Rock III, 255 F. Supp. 3d at 115–16. The EPA also commented, suggesting that the Corps must at least prepare a Mitigated FONSI. Id. at 116. In July 2016, the Corps published its Final EA — again finding that no EIS was required — and

a Mitigated FONSI. See ECF Nos. 172-1 (Final EA), 172-2 (Mitigated FONSI). Both the Draft and the Final EA were prepared by Dakota Access with input from the Corps, as is permitted by NEPA regulations under certain circumstances. Standing Rock III, 255 F. Supp. 3d at 116 (citing 40 C.F.R. § 1506.5(a)-(b)).

C. Procedural History

Shortly after the Corps published the Final EA, the Standing Rock Sioux Tribe filed suit against the agency in this Court, principally claiming that its decisions violated the National Historic Preservation Act and NEPA. See Complaint, ¶¶ 128–93. Dakota Access moved successfully to intervene as a defendant, see ECF No. 7; Minute Order of Aug. 8, 2016 (granting intervention), and the Cheyenne River Sioux Tribe so moved as a plaintiff. See ECF No. 11; Minute Order of Aug. 19, 2016 (granting intervention). On September 9, 2016, the Court denied Plaintiffs' Motion to enjoin construction of the pipeline, finding that the Tribes were unlikely to prevail on their NHPA claims that the construction process desecrated sacred lands adjoining Lake Oahe. Standing Rock I, 205 F. Supp. 3d at 37. As political protests in the pipeline's vicinity grew, the Departments of Justice, the Interior, and the Army that same day jointly announced that DAPL construction would be suspended pending the Corps' reconsideration of its statutory obligations. See ECF No. 42-1 at 1–2. Reversing course, the Corps subsequently published notice of its intent to prepare an EIS as to Dakota Access's request for an easement to cross Lake Oahe. See 82 Fed. Reg. 5,543 (Jan. 18, 2017).

Following the change of administration in January 2017 and a presidential memorandum encouraging acceleration of the DAPL project, see 82 Fed. Reg. 8,661 (Jan. 24, 2017), the Corps again reconsidered its decision and ultimately decided to terminate its intent to prepare an EIS. See 82 Fed. Reg. 11,021 (Feb. 17, 2017). After notifying Congress on February 7, 2017, see

ECF No. 172-10, the agency then issued the easement to Dakota Access on February 8, 2017. See ECF No. 172-11. The Court thereafter rejected a second preliminary-injunction motion, this time brought by Cheyenne River on Religious Freedom Restoration Act grounds, finding obstacles in both the doctrine of laches and the Tribe's low likelihood of success on the merits. Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs (Standing Rock II), 239 F. Supp. 3d 77, 100 (D.D.C. 2017). Around this time, the case was consolidated with two others against the Corps, such that the Oglala Sioux Tribe and Yankton Sioux Tribe were added as Plaintiffs in this matter. See Minute Order of Mar. 16, 2017. All four Tribes currently remain in the suit.

Finally sending their ace pitcher out to the mound in Game 3 — after previously pushing weaker counts under the NHPA and RFRA — Standing Rock and Cheyenne River next sought summary judgment under NEPA, arguing that the Corps was required to prepare an EIS, and Defendants similarly cross-moved. In June 2017, the Court largely upheld the Corps' decision, including on the ground that it had fulfilled any consultation duties toward the Tribes. Standing Rock III, 255 F. Supp. 3d at 147. Yet, it nonetheless found "substantial exceptions" warranting remand. Id. As to Standing Rock, there were three such deficiencies in the Corps' work. The agency had inadequately considered, in accordance with its obligations under NEPA: (1) whether the project's effects were likely to be "highly controversial," id. at 127–29 (citing 40 C.F.R. § 1508.27(b)(4)); (2) the impact of a hypothetical oil spill on the Tribe's fishing and hunting rights, id. at 132–34; and (3) the environmental-justice effects of the project. Id. at 136–40. The Court consequently remanded the matter to the agency to address these issues. Id. at 160. It also reserved decision on two of Cheyenne River's arguments pending the results of the remand, id. at 150, 153, but the Tribe does not now re-assert those positions. See ECF No. 436 (Cheyenne River Second MSJ).

Oglala's and Yankton's claims, meanwhile, were in earlier stages. Yankton and Defendants cross-moved for summary judgment the following year, and the Court found in favor of the Corps. Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs (Standing Rock V), 301 F. Supp. 3d 50, 75 (D.D.C. 2018). Both Yankton and Oglala later preserved issues they intended to pursue following a remand. See ECF Nos. 385 (Oglala); 386 (Yankton).

D. Remand and Results

While the Court remanded to the agency a few of Standing Rock's and Cheyenne River's claims, it did not at that point determine whether the easement for the pipeline would be vacated during the remand. Standing Rock III, 255 F. Supp. 3d at 147–48. In October 2017, it found that "[i]n light of the 'serious possibility' that the Corps w[ould] be able to substantiate its prior conclusions," vacatur was not appropriate. Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs (Standing Rock IV), 282 F. Supp. 3d 91, 109 (D.D.C. 2017) (quoting Nat'l Parks Conservation Ass'n v. Jewell, 62 F. Supp. 3d 7, 20 (D.D.C. 2014)).

The Corps completed its remand analysis in February 2019, see ECF No. 398 (Notice of Service of Remand Analysis), and the parties filed a joint appendix containing that record the following month. See ECF No. 406 (Remand Analysis Record). The Corps' work on remand will be discussed in more detail below. See *infra* Section III.

All parties have now again moved for summary judgment — for the first time, in the case of Oglala. In their briefs, the Tribes raised not only the remanded issues but several others. All Tribes jointly argue that the Corps has failed to remedy its three NEPA violations on remand. In addition, Standing Rock, Cheyenne River, and Yankton attempt to resurrect their NHPA claims, which the Court rejected in earlier Opinions. See Standing Rock I, 205 F. Supp. 3d at 10; Standing Rock V, 301 F. Supp. 3d at 64. Yankton also raised a preserved non-NHPA

consultation claim (as to the Corps' actions before the remand), and Oglala argued its preserved claims under the Mni Waconi Act. All Tribes further contend that the Corps violated its consultation duties toward them during remand. The Court heard oral argument via teleconference on March 18, 2020, and it is now prepared to rule on the Motions.

II. Legal Standard

Upon a party's motion, Federal Rule of Civil Procedure 56(a) requires the Court to "grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." A fact is material if it would change the outcome of the litigation, Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986); Holcomb v. Powell, 433 F.3d 889, 895 (D.C. Cir. 2006), and a dispute is genuine if the evidence is such that a reasonable jury could return a verdict for the non-moving party. Scott v. Harris, 550 U.S. 372, 380 (2007); Holcomb, 433 F.3d at 895. In the event of conflicting evidence on a material issue, the Court is to construe the conflicting evidence in the light most favorable to the non-moving party. Sample v. Bureau of Prisons, 466 F.3d 1086, 1087 (D.C. Cir. 2006). "Factual assertions in the moving party's affidavits or declarations may be accepted as true unless the opposing party submits its own affidavits[,] . . . declarations[,] or documentary evidence to the contrary." Defs. of Wildlife v. U.S. Border Patrol, 623 F. Supp. 2d 83, 87 (D.D.C. 2009) (citing Neal v. Kelly, 963 F.2d 453, 456 (D.C. Cir. 1992)).

The above-described standard, however, does not apply to the Tribes' NEPA claims, which will be analyzed under the Administrative Procedure Act's judicial-review standard. Sierra Club v. FERC, 867 F.3d 1357, 1367 (D.C. Cir. 2017) ("[B]ecause NEPA does not create a private right of action, we can entertain NEPA-based challenges only under the [APA] and its deferential standard of review."). That standard, set out below, applies in place of the typical

summary-judgment standard of Rule 56: "[W]hen a party seeks review of agency action under the APA, . . . the district judge sits as an appellate tribunal." Rempfer v. Sharfstein, 583 F.3d 860, 865 (D.C. Cir. 2009) (quoting Am. Bioscience, Inc. v. Thompson, 269 F.3d 1077, 1083 (D.C. Cir. 2001)). In other words, "[t]he entire case on review is a question of law." Id. (quoting Marshall Cty. Health Care Auth. v. Shalala, 988 F.2d 1221, 1226 (D.C. Cir. 1993)).

The Administrative Procedure Act "sets forth the full extent of judicial authority to review executive agency action for procedural correctness." FCC v. Fox Television Stations, Inc., 556 U.S. 502, 513 (2009). It requires courts to "hold unlawful and set aside agency action, findings, and conclusions" that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Agency action is arbitrary and capricious if, for example, the agency "entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

"'The scope of review [in an APA case] is narrow and a court is not to substitute its judgment for that of the agency,' provided the agency has 'examine[d] the data and articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made.'" Airmotive Eng'g Corp. v. FAA, 882 F.3d 1157, 1159 (D.C. Cir. 2018) (second and third alterations in original) (quoting State Farm, 463 U.S. at 43). While the Court "may not supply a reasoned basis for the agency's action that the agency itself has not given, [it] will uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned." Bowman Transp., Inc. v. Ark.-Best Freight Sys., Inc., 419 U.S. 281, 286 (1974)

(citation omitted) (citing SEC v. Chenery Corp., 332 U.S. 194, 196 (1947); then citing Colo. Interstate Gas Co. v. FPC, 324 U.S. 581, 595 (1945)). It is only these "certain minimal standards of rationality" to which a reviewing court holds an agency. Nat'l Envtl. Dev. Ass'n's Clean Air Project v. EPA, 686 F.3d 803, 810 (D.C. Cir. 2012) (quoting Ethyl Corp. v. EPA, 541 F.2d 1, 36–37 (D.C. Cir. 1976) (*en banc*)).

III. Analysis

We now arrive at the crux of the matter: has the Corps remedied the three NEPA shortcomings that necessitated remand? And what of the other claims raised by the Tribes? The Court will focus on NEPA and then briefly address the remaining claims brought under two other statutes.

A. NEPA

As noted above, while the Court "[found] that the Corps' decision on July 25, 2016, and February 3, 2017, not to issue an EIS largely complied with NEPA," it also concluded that there were three "substantial exceptions" — that is, the Corps had violated NEPA in three ways. Standing Rock III, 255 F. Supp. at 147. To wit, it found wanting the Corps' analysis of: (1) whether the project's effects were likely to be highly controversial, id. at 129; (2) the impact of an oil spill on the Tribe's fishing and hunting rights under the Treaty of 1851, id. at 134; and (3) "whether," under a required environmental-justice analysis, "Standing Rock would be disproportionately harmed by a spill." Id. at 140.

The Court will begin its analysis by discussing relevant aspects of the standard of review of agency action under NEPA. It will then proceed to consider how the Corps fares under that standard. It will finish by explaining how its findings on the "highly controversial" factor

obviate a need for discussion of the other two remand issues as well as some other claims raised by the Tribes.

1. *NEPA Standard*

NEPA requires an agency to prepare an Environmental Impact Statement "[i]f any 'significant' environmental impacts might result from the proposed agency action." Grand Canyon Trust, 290 F.3d at 340 (quoting Peterson, 717 F.2d at 1415). A court's "role in reviewing an agency's decision not to prepare an EIS is a limited one, designed primarily to ensure that no arguably significant consequences have been ignored." Myersville Citizens for a Rural Cmty., Inc. v. FERC, 783 F.3d 1301, 1322 (D.C. Cir. 2015) (emphasis added) (internal quotation marks omitted) (quoting TOMAC v. Norton, 433 F.3d 852, 860 (D.C. Cir. 2006)). It "must review whether the agency: '(1) has accurately identified the relevant environmental concern, (2) has taken a hard look at the problem in preparing its EA, (3) is able to make a convincing case for its finding of no significant impact, and (4) has shown that even if there is an impact of true significance, an EIS is unnecessary because changes or safeguards in the project sufficiently reduce the impact to a minimum.'" Michigan Gambling Opposition v. Kempthorne, 525 F.3d 23, 29 (D.C. Cir. 2008) (quoting TOMAC, 433 F.3d at 861). While NEPA does not direct agencies "to take one type of action or another," it does require courts to hold them accountable to its procedural requirements. Busey, 938 F.2d at 193–94. The decision not to prepare an EIS is part of the latter category — that is, courts may find that an agency was arbitrary and capricious not to prepare an EIS and order it to do so. See, e.g., Semonite, 916 F.3d at 1088.

As noted above, an agency considering whether a project will have a "significant" effect on the environment — and thus whether it must prepare an EIS, see Peterson, 717 F.2d at 1415;

42 U.S.C. § 4332(2)(C) — must analyze both the proposed action's "context" and its "intensity." 40 C.F.R. § 1508.27. "[I]n evaluating intensity," the agency must consider ten factors, id. § 1508.27(b), only one of which is relevant here. "Implicating any one of these factors may be sufficient to require development of an EIS." Semonite, 916 F.3d at 1082. For example, in Grand Canyon Trust, the D.C. Circuit found that, having decided that the FAA had not sufficiently considered one of the factors, it need not "reach[]" the plaintiff's claim that the agency had also failed to adequately analyze another of the ten. See 290 F.3d at 347.

The § 1508.27(b) factor at issue here is "[t]he degree to which [the project's] effects on the quality of the human environment are likely to be highly controversial." 40 C.F.R. § 1508.27(b)(4). Effects are "controversial" where "substantial dispute exists as to the size, nature, or effect of the major federal action rather than to the existence of opposition to a use." Town of Cave Creek v. FAA, 325 F.3d 320, 331 (D.C. Cir. 2003) (emphasis added) (quoting Found. for N. Am. Wild Sheep v. USDA, 681 F.2d 1172, 1182 (9th Cir. 1982)). While "what constitutes the type of 'controversy' that requires a full EIS is not entirely clear," Nat'l Parks Conservation Ass'n v. United States, 177 F. Supp. 3d 1, 33 (D.D.C. 2016) (quoting Nat'l Wildlife Fed'n v. Norton, 332 F. Supp. 2d 170, 184 (D.D.C. 2004)), "something more is required besides the fact that some people may be highly agitated and be willing to go to court over the matter." Id. (quoting Fund for Animals v. Frizzell, 530 F.2d 982, 988 n.15 (D.C. Cir. 1975)). In other words, the significant public protests near Lake Oahe do not transform the pipeline's approval into a highly controversial action within the meaning of 40 C.F.R. § 1508.27(b)(4).

This "something more" is often "scientific or other evidence that reveals flaws in the methods or data relied upon by the agency in reaching its conclusions." WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41, 81 (D.D.C. 2019) (quoting Nat'l Parks Conservation Ass'n, 177 F.

Supp. 3d at 33). In its first summary-judgment Opinion, the Court found that "[t]he expert reports submitted to the Corps after the Final EA was published but before the Corps again decided in February 2017 that an EIS was not required . . . present such scientific critiques." Standing Rock III, 255 F. Supp. 3d at 129 (emphases omitted); see also id. (listing, as examples, seven methodological critiques made in the Tribes' expert reports). The agency's failure to sufficiently respond to these critiques was one of the issues necessitating remand. Id.

While the remand in this case was ongoing, the D.C. Circuit issued a significant opinion clarifying a court's role in reviewing an agency's finding that a project was not "highly controversial." In Semonite, the Corps examined the construction of power lines that would run through historic Jamestown and determined that it did not need to prepare an EIS. See 916 F.3d at 1078–80. Many commenters, including the National Park Service, the Advisory Council on Historic Preservation, the Virginia Department of Historic Resources, and "many non-governmental organizations," raised concerns about various aspects of the project. Id. at 1080. Some of these commenters "identified what they viewed as serious flaws in the Corps's methodologies." Id. In response, the Corps "twice directed [the power company building the lines] to revise its photo simulations," but "[c]ommenters remained unsatisfied." Id. The D.C. Circuit found that, contrary to the Corps' position, the agency action was likely to be "highly controversial" — and thus the project must be halted while the Corps prepared an EIS — because there was "consistent and strenuous opposition, often in the form of concrete objections to the Corps's analytical process and findings, from agencies entrusted with preserving historic resources and organizations with subject-matter expertise." Id. at 1086.

Crucially, the Semonite court explicitly rejected the agency's argument that it had fulfilled its duty under NEPA by "acknowledg[ing] and try[ing] to address concerns raised

during the NEPA process by, for example, instructing [the equivalent of DAPL here] to revise its analyses to address the shortcomings identified by commenters." Id. at 1085. That argument, the D.C. Circuit stated, "misse[d] the point." Id. "The question is not whether the Corps attempted to resolve the controversy, but whether it succeeded. Given that many critical comments, including from [agencies and non-governmental organizations], post-dated [those] revisions, the Corps obviously failed." Id. at 1085–86 (emphases added).

The Corps argues that Semonite does not control — and thus that "considering" responses "is all that is required," Oral Arg. Tr. at 44:5–6 — because in that case both private organizations and federal agencies with subject-matter expertise raised concerns with the agency's proposed plans. See ECF No. 458 (Corps Opp. to Standing Rock) at 29–30. Whereas "in Semonite, you had the neutral expert agency" objecting to the Corps' plans, it contends, "[Y]ou have the opposite here." Oral Arg. Tr. at 6:25–7:6. By "the opposite," the agency means that in this case, the Pipeline and Hazardous Materials Safety Administration (PHMSA) "did not object to the worst case discharge methodology or underlying assumptions." Corps Opp. to Standing Rock at 30.

The Court does not believe that these points distinguish the clear instruction of Semonite. First, the D.C. Circuit in that case did not rest its holding exclusively on the existence of federal-agency criticisms, ignoring those raised by private organizations. See, e.g., 916 F.3d at 1085 (describing the "considered responses" of "highly specialized governmental agencies and organizations"). Second, both the Department of the Interior and the EPA, under the previous administration, did express concerns with the agency's analysis here. Interior, for example, found that the Corps' Draft EA "did not adequately justify or otherwise support its conclusion that there would be no significant impacts upon the surrounding environment and community."

USACE_DAPL 5750. EPA recommended, among other things, that the Corps analyze more closely the leak-detection system it had selected, including its "ability . . . to identify small volume leaks." USACE_DAPL 5746. In fact, as the Corps itself noted, EPA's own estimate for a spill from a pipeline of DAPL's size in that region was many times the size of the Corps'. See USACE_DAPL 72184, 72252 (citing U.S. Nat'l Response Team, Mid-Missouri River Sub-Area Contingency Plan 9 (2015)). The agencies' position changed after a new administration took office and President Trump urged the Corps to "review and approve [DAPL] in an expedited manner." 82 Fed. Reg. 8661. This is certainly their prerogative, see State Farm, 463 U.S. at 59 (Rehnquist, J., concurring in part and dissenting in part) ("A change in administration brought about by the people casting their votes is a perfectly reasonable basis for an executive agency's reappraisal of the costs and benefits of its programs and regulations."), but the existence of the prior comments undercuts the Corps' emphasis on the lack of federal-agency critique in this case.

Third and finally, the Corps' position treats the Tribes and their experts as more akin to the "non-governmental organizations" in Semonite, 916 F.3d at 1080, than governmental entities. As the Government well knows, however, "Indian tribes are 'domestic dependent nations' that exercise inherent sovereign authority over their members and territories." Okla. Tax Comm'n v. Citizen Band Potawatomi Tribe of Okla., 498 U.S. 505, 509 (1991) (quoting Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1, 10 (1831)). Here, these sovereign nations prepared expert comments with the help of not only third-party consultants but also their own relevant governmental departments. See, e.g., RAR 7453 (report submitted by Standing Rock in collaboration with, among others, its Department of Water Resources, Department of Game and Fish, Tribal Emergency Management Commission, Department of Environmental Regulation,

and a five-member "Technical Consulting Team"). In sum, the Court does not find a reason to deviate from Semonite here.

In addition to the nature of the Court's review, the parties also disagree as to its scope. Dakota Access maintains that, in determining whether the Corps has fulfilled its NEPA obligations, the Court should consider only the critiques raised between July 2016 and February 2017 — that is, those that generated the unresolved scientific controversy prompting the Court's remand. See ECF No. 456 (Dakota Access Consolidated Opp.) at 14; Oral Arg. Tr. at 46:8–11 (arguing that Court should consider "the results of [the] new modeling" but not Plaintiffs' responses to them). The Tribes, on the other hand, believe that the Court should also review their comments submitted during the remand and the Corps' responses to those.

Once again, Semonite lights the way. Arguably, under that precedent, the Court could find the "highly controversial" factor met merely from the existence of "consistent and strenuous opposition" in the form of experts' "concrete objections to the Corps's analytical process and findings" that "post-dated" the Corps' revision efforts. Semonite, 916 F.3d at 1085–86. But this case stands in a more developed procedural posture than Semonite: here the agency has had an additional chance to respond to these renewed criticisms during the remand. See RAR 103 (confirming Corps considered in its remand analysis "the letters, written comments, and expert reports" as well as "all information verbally communicated at the meetings with the Tribes" during remand); id. at 104 tbl.III-1 (listing documents considered and responded to, including those received after the easement and during remand). As a result, and particularly since both Defendants argued the sufficiency of those responses in their briefs, see, e.g., Dakota Access Consolidated Opp. at 25–27; ECF No. 446 (Corps Opp. to Standing Rock) at 28, the Court finds it prudent to analyze the substance of expert comments made both before and during the remand

to determine whether they "succeed" in resolving the points of scientific controversy that continue to be raised by experts.

2. *Points of Controversy*

Having thus delineated the nature and scope of its review, the Court may now engage in the business of reviewing. Given the volume of expert comments submitted both before the granting of the easement and during the remand, it finds that the best approach is to group these criticisms by subject matter. For each topic, the Court will discuss the concerns raised by the Tribes' experts, the responses offered by the Corps, and whether the latter succeed in resolving the scientific controversy. Plaintiffs' experts will be introduced as they appear in the below comments. The Corps also relied on reports prepared for Dakota Access by a third-party consulting expert. See, e.g., RAR 8743 (noting that Spill Model Analysis was done by private consulting group RPS for ETP); Final EA at 126–27 (including, in "List of Preparers and Reviewers," three "Environmental Specialists" from a private environmental consulting company). Citations to Bates numbers beginning with USACE_ESMT, USACE_DAPL, USFWS_DAPL, and OAHE indicate references to the pre-remand administrative record, including the expert comments contained therein. Citations to Bates numbers beginning with RAR refer to the remand-analysis record, again including expert comments raised during that time.

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. As will be explained, even this non-extensive selection suffices to show the necessity of an EIS.

a. Leak-Detection System

The Court begins by discussing concerns raised about DAPL's leak-detection system — one of the areas of unaddressed scientific controversy noted in the first summary-judgment Opinion. Standing Rock III, 255 F. Supp. 3d at 129 (quoting USACE_ESMT 1081). Experts for both Standing Rock and Cheyenne River expressed their skepticism as to the effectiveness of this system both before and during the remand.

First, they asserted that there was serious reason to doubt the efficacy of the system. As the above-mentioned report submitted by Standing Rock noted, "A 2012 PHMSA comprehensive leak detection study found one type of leak detection system[, called SCADA,] . . . detected hazardous liquid leaks 28 percent of the time," and another, called CPM, "had a detection rate of 20 percent." RAR 7505. Another expert for Standing Rock had also presented this data in October 2016, adding that "[t]his low success rate" was "consistent with Accufacts' many liquid pipeline failure investigations spanning more than 40 years, especially more recent investigations." ECF No. 117-15 (Accufacts Report of October 2016) at 4–5. DAPL, it should be noted, uses a CPM leak-detection system. See RAR 173–74.

The Corps' response to the first of these comments was to merely refer to its response to a different comment that did not specifically address the PHMSA data. See RAR 257 (directing reader to RAR 143–44); RAR 143–44 (addressing worst-case discharge generally and not PHMSA data from 2012). Its response to the second — which raised the same PHMSA data — addressed only Accufacts's assertion that the PHMSA data was consistent with its 40 years of experience investigating pipeline failures: "ETP asserts that a comparison to data from 40 years ago, and from older pipelines installed prior to modern pipeline standards, overstates the risk of

this modern pipeline." RAR 173. It then went on to describe some features of DAPL's "state-of-the-art pipeline monitoring tools" and practices. See RAR 173–74.

These responses plainly do not succeed in resolving the serious concerns raised. Most critically, the Corps failed entirely to respond to the 2012 PHMSA study that indicated an 80% failure rate in the type of leak-detection system employed by DAPL. Instead, it focused on the expert's comment that its own experience corroborated the PHMSA data. The agency mischaracterized this comment as drawing only on "data from 40 years ago, and from older pipelines installed prior to modern pipeline standards," RAR 173, when the expert had specifically stated that its experience was drawn from a 40-year period and "especially more recent investigations." Accufacts Report at 5. Accufacts made no indication that its experience was only with "pipelines installed prior to modern pipeline standards." The Corps' statement that the expert's comment "overstates" the risk of a leak-detection failure, therefore, holds no water (or oil, as the case may be).

Second, experts noted that the apparent likelihood that DAPL's leak-detection system would not perform the detections for which it was designed was only part of the problem. In addition, the system was not even designed to detect leaks that constituted 1% or less of the pipe's flow rate. See RAR 7683. At the current pipeline flow rate of about 600,000 barrels per day, this means that "6,000 bbs/day" — that is, about 25,200 gallons — "could be released continuously, over a long period of time, without detection." Id. Oglala's expert, a civil and environmental engineer working for an engineering consultancy group, made similar points in a December 2016 report. See RAR 1250. The Corps did not respond to these comments, see RAR 155–59, 274, but in responses to other related topics, it stated that "[a]ccording to ETP," the leak-detection system in place for DAPL "is capable of detecting leaks down to 1 percent or

better of the pipeline flow rate." RAR 127. "In the event of a slow leak," it continued, "even if pressure measurements do not show a significant drop in pressure, a detectable meter imbalance will develop over a period of time resulting in an alarm to the Control Center." Id. "While the alarm threshold may be 1%," DAPL's leak-detection system is "sensitive to smaller changes in flow rate and pressure." Id.

The Court similarly cannot find that the agency adequately disposed of the experts' concerns here. Even while stating that the system was "sensitive to smaller changes in flow rate and pressure," the Corps confirmed that the threshold for a leak-detection alarm was 1%. See RAR 127. Its further response that a less-than-1% leak would eventually be detected over an unspecified "period of time" after building up enough to cause a meter imbalance, id., was less than reassuring given that the amount of undetected leaking oil could be as much as 6,000 barrels per day. See RAR 7683. Indeed, one of the experts noted that Sunoco had experienced a spill of 8,600 barrels on one of its pipelines when it had not recognized a leak even when there was an "imbalance indication[]" because that imbalance did not exceed "established normal operating tolerances." RAR 7491 (quoting PHMSA report of the incident). At oral argument, moreover, when asked why the spill modeling did not include such a slow-leak scenario, the Corps stated that "there was no particular reason that they didn't look at a slow leak." Oral Arg. Tr. at 12:8–9.

Third, Accufacts commented that a "complete risk analysis require[s], *inter alia*, consideration of . . . location and type of 'critical leak detection monitoring devices by milepost.'" RAR 7491 (quoting USACE_ESMT 1081); see also USACE_ESMT 1078–79 (same expert finding "key variables" such as "time to remotely recognize and react to a possible release" were not considered by Corps). The agency responded that the third-party engineering

company that had performed the risk analysis had, according to representations made to the Corps by ETP, considered "[i]nformation on critical leak detection monitoring devices associated with the [leak-detection system] consisting of pressure transmitters and ultra-sonic flow meters by milepost location." RAR 129.

This response does not quite succeed in resolving the issues raised. Stating that it had considered the information was a good start, but, while the Corps did indicate the type of monitoring devices that were used, it did not mention their locations, and, most critically, it did not point to any analysis that did in fact take these two details into consideration. Were this the only point of expert contention, it might be a closer call, but the Corps' responses to the first two groups of expert comments show that the scientific controversy surrounding DAPL's leak-detection system was not resolved.

b. Operator Safety Record

The next topic is the safety record of DAPL's operator, referred to interchangeably by the parties as ETP and Sunoco (the two completed a merger during this litigation). The thrust of these comments was that any analysis of the risk or magnitude of a spill for a certain pipeline should take into account the performance history of its operator. Donald Holmstrom, an "attorney, investigator, and process safety practitioner with many decades of experience in the oil industry and U.S. government," ECF No. 272-4 (Declaration of Donald Holmstrom), ¶ 1, commented, "A valid risk analysis would recognize the history of the operator, but that didn't happen here." Id., ¶ 9. Standing Rock's remand report made a similar comment. See RAR 7503 ("Nowhere d[id] DAPL explain why historic shutdown discharges from other Sunoco/ETP pipeline incidents are not discussed or relevant. . . . Leak detection estimates to be realistic or scientific need to be based on actual historic performance data."). In this case, the operator's

history did not inspire confidence: "PHMSA data shows Sunoco has experienced 276 incidents resulting in over $53 million in property damage from 2006–2016," which one expert described as "one of the lower performing safety records of any operator in the industry for spills and releases." Holmstrom Decl., ¶ 9.

The Corps focused its responses on defending the operator's performance record itself rather than on justifying its decision to not incorporate that record into its analysis. It did not directly reply to the comment that it had not explained "why historic shutdown discharges from other Sunoco/ETP pipeline incidents are not discussed or relevant." RAR 7503; see RAR 255. And in response to the comment that "[a] valid risk analysis would recognize the history of the operator," Holmstrom Decl., ¶ 9, it gave a verbatim repetition of its answer to the comment that "PHMSA data shows Sunoco has experienced 276 incidents resulting in over $53 million in property damage from 2006–2016." Id.; compare RAR 235–36, with RAR 136–37. That response, which addressed only the safety record (and not the failure to consider it), noted that 70% of the 276 incidents were confined to operators' property, and "if an incident is confined to the operators' property, then it would not reach Lake Oahe or any other land or water used by the Tribe." RAR 137. It also noted that Sunoco had increased inspections of its pipelines in recent years, see RAR 235, and stated that the commenter(s) "d[id] not identify a specific alternative methodology or particular criteria or performance metrics that the Corps should have considered" or studies "that would cause the Corps to doubt its previous methodologies and data supporting [its] conclusion to rely on ETP's risk analysis." Id.

This response does not resolve the issues raised by the Tribes' experts. Two central concerns went unaddressed: (1) the 30% of spills — about 80 of them — that were not limited to operator property; and (2) the criticism that the spill analysis should have incorporated the

operator's record. Indeed, the 70% of spills that occurred on operator property may still be relevant to the latter point — for example, by showing how an operator's practices might affect the risk of a spill, length of detection time, and speed of response. Finally, the Corps' form language about lack of "specific alternative methodology" and studies "that would cause the Corps to doubt its previous methodologies" — which appears, without alteration or explanation, in many of its responses, see, e.g., RAR 116, 119, 125, 130, 132 — is a *non sequitur* and does nothing to resolve the specific issues raised by the Tribes' experts.

c. Winter Conditions

Another concern captured in expert comments was the Corps' failure to consider the impact of harsh North Dakota winters on response efforts in the event of a spill. First, as Oglala's expert noted, "[S]ubfreezing temperatures during winter months will affect emergency response conditions during cleanup of a spill," creating "significant difficulties that are not present during other periods," such as that "workers require more breaks and move slower due to the bundling of clothing," "daylight hours are shorter," and "slip-trip-fall risk increases significantly." Earthfax Report at 7. The Final EA, then, "should have quantified the effect of these factors on response time and the subsequent impacts to human health and the environment." Id.

The same expert pointed out, moreover, that the EA's statement that "ice itself often serves as a natural barrier to the spread of oil" by "naturally contain[ing]" pockets of oil, see Final EA at 39 (USACE_DAPL 71263), was an "oversimplification of oil recovery operations beneath ice." Earthfax Report at 7. In the first place, the report stated, ice makes it "difficult to determine where the largest pockets of oil may occur." Id. Beyond that, "[t]he trapped oil may move," and "[i]ce will naturally break both on the river and on the reservoir, shifting recovery

locations and increasing safety hazards." Id. Because of the above-described complications of emergency response during the winter, moreover, "the time required to recover the oil will be increased," in turn "increas[ing] the extent to which the oil dissolves into the water." Id. at 8. The expert noted that the study cited by the Corps for the proposition that ice may benefit spill response also indicated the ways in which winter may simultaneously hinder it. Id. Ultimately, the expert concluded, "[T]he EA should have presented a more serious, quantitative evaluation of the winter spill scenario" to ensure that the above-described factors "were properly evaluated." Id. Standing Rock and its experts made a similar point that will be discussed in the following section. See *infra* Section III.A.2.d.iii.

In its response to Oglala's expert, the Corps "agree[d]" that "the recovery of oil under ice is difficult." RAR 150. The agency stated that it had considered winter conditions in the EA, pointing to parts of the Final EA that the Oglala expert had criticized. Id. (citing Final EA at 39). It also stated that it had "mandated full-scale winter/ice exercises at . . . Lake Oahe as a condition to the easement," and that such exercises were "tentatively scheduled" for February 2019. Id. Finally, it noted that "the Spill Model Report includes an assessment of the winter spill scenario of oil movement under the ice at Lake Oahe." Id. (citing RAR 8875). That report "predicts that ice cover retards the movement of oil downstream by trapping the hydrocarbons in the vicinity of the release location." RAR 151. Thus, "ETP anticipates that the difficult winter conditions will be counterbalanced by the slower movement of the oil beneath the ice." Id.

The Court finds the Corps' response insufficient to resolve the points raised by Oglala's expert. To start, the agency's reference to the Spill Model Report does not necessarily support ETP's prediction. The report in fact found that, in simulations presuming 100% ice coverage, "[t]he ice effectively capped the oil, prevented evaporation, and resulted in enhanced dissolution,

all of which led to the maximum mass of oil in the water column." RAR 8875. This is in line with the expert's prediction, see Earthfax Report at 8 (winter response complications will "increase the extent to which the oil dissolves into the water"), and does not support ETP's conclusion that slow winter flow rates and the entrapment of oil pockets within the ice would counteract the response difficulties presented by winter conditions. The Corps' reference, moreover, to the parts of the EA that formed the basis of the expert's criticism does not "resolve" the scientific controversy. Semonite, 916 F. Supp. 3d at 1085–86. And practicing a winter response, while prudent and perhaps a good avenue for producing data as to how exactly winter conditions would delay response efforts, does not get to the point of addressing the concern that the spill model does not currently take that kind of data into account.

d. Worst-Case Discharge

The largest area of scientific controversy, particularly during remand, was the worst-case-discharge estimate for DAPL used in the spill-impact analysis. As relevant here, the "worst case discharge" is

> [t]he pipeline's maximum release time in hours, plus the maximum shutdown response time in hours (based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after shutdown of the line section(s) in the response zone expressed in barrels (cubic meters).

40 C.F.R. § 194.105(b)(1). In other words,

> WCD = ((maximum release time + maximum shutdown response time) × maximum flow rate) + largest line drainage volume

The idea, then, is to calculate the maximum amount of oil that could possibly leak from the pipeline before a spill is detected and stopped. The regulations further provide that the "[w]orst

case discharge means the largest foreseeable discharge of oil . . . in adverse weather conditions." 49 C.F.R. § 194.5.

One final introductory note. Defendants argue that the PHMSA regulations cited above, which require calculation of a worst-case discharge, see 40 C.F.R. § 194.105(a), are not mandatory under NEPA and thus that the Corps need not have complied with them under that statute. See Corps Opp. to Standing Rock at 12 (citing Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989)). But even if it was not required to do so, the agency did perform such calculations using 40 C.F.R. § 194.105(b)(1), which formed the basis for other conclusions about the effects of a spill. See id. at 12–13 ("[T]he Corps based some of its analysis on an extremely pessimistic "worst case discharge" figure derived from a Spill Model Report prepared pursuant to PHMSA regulations."). Expert critiques raising serious doubts about the Corps' application of 40 C.F.R. § 194.105(b)(1) cannot be resolved by the fact that the agency may not have been required to use this particular method in the first place. Such a rule would immunize vast swaths of the Corps' analysis from judicial or expert review. Cf., e.g., Sierra Club v. Sigler, 695 F.2d 957, 966 (5th Cir. 1983) ("The purpose of judicial review under NEPA is to ensure the procedural integrity of the agency's consideration of environmental factors in the EIS and in its decision to issue permits. If the agency follows a particular procedure, it is only logical to review the agency's adherence to that procedure, not to some altogether different one that was not used."). Indeed, the Corps seemed to concede this at oral argument. See Oral Arg. Tr. at 8:25–9:4 ("The Court: . . . But since you did [a WCD analysis] here, shouldn't that analysis be subject to expert criticism?" Mr. Schifman: "Yes. It is absolutely, just as any analysis that the Corps or any agency does is subject to expert criticism in the appropriate comment period or whatever the case may be. So, it was subject to that criticism, the Corps evaluated the criticism

in great depth . . . ."). The Court, therefore, will consider expert critiques of the agency's calculation of the WCD as valid as any other critique.

Both before the easement was issued and during remand, experts raised myriad concerns with the WCD used by the Corps to evaluate impacts of a potential DAPL spill. While there were many axes on which the WCD was challenged, the Court will discuss only three, finding them sufficient to illustrate the unresolved scientific criticisms posed by the Tribes' experts.

i. Leak-Detection Time

In addition to the concerns raised about whether the leak-detection system would function as claimed and that it was not designed to detect spills of less than 1%, see *supra* Section III.A.2.a, experts also voiced strong criticisms of how quickly the Corps claimed the system would catch a spill in its WCD analysis. Standing Rock's remand report commented that, while "[l]eak detection time is intended to be part of the WCD calculation formula," RAR 7502, "no actual detection time was provided or utilized." RAR 7501. (Recall that inclusion of detection time was also one of the areas for improvement suggested by EPA in its comment on the Draft EA. See USACE_DAPL 5746 ("recommend[ing] that the NEPA analysis describe . . . the time that would be required for detection and shutoff of the pipeline").) Instead, "[t]he DAPL calculation multiplied only the pump shutdown time by the maximum flow rate and added the drain down volume." RAR 7501. And far from being instantaneous, several experts noted, the worst-case leak-detection time was likely to be quite long. See, e.g., RAR 1347 (commenting that spills have been documented to continue undetected for "hours and sometimes weeks"); RAR 7689 (recommending that the WCD "release time assumption" be increased to 8 hours to "reflect[] the actual (proven in use) performance of the Leak Detection System and the track record of the pipeline operator to identify pipeline leaks in remote locations such as the Lake

Oahe pipeline crossing"); Accufacts Report at 8 ("There appears to be considerable optimism in the EA in assuming a quick recognition and response by control room personnel.").

The Corps countered that, after "review[ing] the Lake Oahe Crossing Report numerous times resulting in numerous revisions by the applicant," it had determined that the estimated total time for leak detection, pump shutdown, and valve closure used in the WCD was "12.9 minute[s]." RAR 254. This was "based on the sum of the time to detect a break on the line and shutdown pumps (9 minutes) and the time to close the valves (3.9 minutes for standard valves)." Id. The agency stated that the 9-minute portion, to which it had previously referred only as the amount of time required to shut down mainline pumps, was in fact "not limited to pump shutdown time as it already includes 1 minute for time of detection." Id. The 1-minute figure was used because, "[a]ccording to ETP, the typical time of detection for a WCD rupture is less than 1 minute." Id.; see also RAR 126 ("According to ETP, the LeakWarn CPM system is . . . capable of providing rupture detection within 1 to 3 minutes."); RAR 127 (same).

The Corps' response does not resolve the issues raised by the experts' comments on many levels. To start, the Court finds it difficult to make sense of the agency's statement that its previous "reference to the mainline pumps being shutdown within 9 minutes of detection is not just limited to pump shutdown time as it already includes 1 minute for time of detection." RAR 254 (emphasis added). The "reference" is in the spill-model analysis prepared for Dakota Access by a third-party private consultant. See RAR 14959–87. There, the consultant explains that the numbers "utilized in the DAPL computer model" allow 12.9 minutes for "Detection and Shutdown*." RAR 14967. Below that, the asterisk is explained: "*The mainline pumps are shutdown within 9 minutes of detection and the adjacent block valves are completely closed within an additional 3.9 minutes." Id. Given that the latter sentence is meant to explain the

reference to "Detection and Shutdown," the Corps' statement that the 9 minutes include 1 minutes for detection appears unsupported. The clear meaning of "within 9 minutes of detection" is "9 minutes after detection." At best, the Corps' statement that the 9 minutes included time for detection requires more explanation.

But even if the Court accepted, *arguendo*, that the WCD did allow one minute for detection of the rupture, this does not resolve the serious concerns noted by experts about the propriety of using that number to calculate the WCD. Most obviously, what DAPL's leak-detection system is "capable of," RAR 126, 127, or what its "typical" performance would be, see RAR 254, are not necessarily the same as the figure that should be used in calculating its "maximum release time." 40 C.F.R. § 194.105(b)(1). The Corps itself betrays that one minute is not the longest time it could take for a full-bore rupture to be detected, since it admits that DAPL's leak-detection system is "capable of providing rupture detection within 1 to 3 minutes." RAR 126, 127. The difference between one and three minutes is not insignificant when speaking of a full-bore rupture: the current maximum flow rate of the pipeline (only half of its full capacity) is 600,000 barrels a day, which translates to over 416 barrels per minute.

But the difference between the one-minute number used in the WCD and the actual maximum detection time may be much larger. In response to the many experts who commented that hours, rather than minutes, were more accurate figures for the WCD, the Corps merely repeated that ETP had assured it that DAPL's system was capable of detecting a full-bore rupture one to three minutes after it occurred. See RAR 127, 205, 254. Of course, the fact that the system is capable of detecting a leak in this time does not mean that it will do so, only that it may. And in neither case does the one-to-three-minute timeframe purport to be the maximum

release time the WCD regulation requires and which the experts posited could well be hundreds of times longer than ETP's number.

ii. Shutdown Time

Once a leak is detected, the pipeline's pumps must be shut down in order to stop the flow of oil. In addition, valves help to "reduce the total volume of oil that could be released in the event of a spill," RAR 120, by blocking already-pumped oil before it reaches the point of a leak or rupture. DAPL has two such valves near Lake Oahe; failure of these valves would cause the discharge amount to skyrocket. See RAR 121.

Recall that the WCD regulations require calculation of "the maximum shutdown response time in hours (based on historic discharge data or in the absence of such historic data, the operator's best estimate)." 40 C.F.R. § 194.105(b)(1). As noted above, the Corps used a total time of 12.9 minutes for shutdown — 9 minutes for the pumps and 3.9 minutes for the valves. See RAR 254, 14967. (As discussed, the 9-minute figure may also include 1 minute for leak detection, thus leaving 8 minutes for pump shutdown. See *supra* Section III.A.2.d.i.)

Holmstrom contended that the 12.9 (or possibly 11.9) minutes "from leak detection to the closing of the shut-off valves lacks supporting data and is not credible." Holmstrom Decl., ¶ 14. This number, he pointed out, was "based on a 'best case' scenario in which all systems function precisely as intended," including that "the correct decision and response is immediately initiated, and all equipment such as controls, sensors, pumps and valves function as intended." Id., ¶ 11. Such assumptions have no place in a worst-case scenario, experts said, since in reality "[m]ajor spill incidents typically occur with multiple system causes, when people, or equipment, or systems do not function exactly as they are expected to." Id. By failing to consider such

eventualities, which is the modern standard for major accident prevention, the model had not, in fact, given a worst-case discharge analysis. Id.

The Corps responded to this criticism by stating that the valves at Lake Oahe "have a closure time of no greater than three (3) minutes." RAR 155 (quoting Final EA at 90); see RAR 236–37 (referring to RAR 155–59). The other parts of Holmstrom's comment — *i.e.*, those identifying why assuming a perfect valve-closure time was unrealistic for a WCD — were omitted from the Corps' response to the relevant paragraph of his declaration. See RAR 236. In its limited answer, moreover, the agency largely focused on the fact that its WCD figure was lower than an earlier, non-WCD spill-volume estimate made by Oglala's expert. See RAR 143–44; see also RAR 236 (referring to RAR 143–44, 151–55). It further explained that, "during the design process, ETP evaluated the potential for incorrect operation and/or equipment failure at the . . . pump stations[and] mainline valves," resulting in a design that is "established to safeguard against incorrect operation using alarms and shutdowns to operate the pipeline within the guidelines of [the PHMSA pipeline regulations]." RAR 151.

The Corps' responses are, again, inadequate. The agency's statement that it takes no more than three minutes for the valve-closure process to occur, see RAR 155 (quoting Final EA at 90), does not respond to the fact that human or machine error might result in the valves' not beginning the closure process at all (even after a leak has been detected). See Holmstrom Decl., ¶ 11; see also Oral Arg. Tr. at 10:4–5 ("It does assume the valves close as they are, you know, able to do."); id. at 10:25–11:2 ("[T]here's no portion of the remand analysis that directly says here's what happened [if] the valves never closed.").

The Corps' myopic preoccupation with the Earthfax estimate, moreover, which pervades its responses to expert comments about flaws in the WCD, see RAR 143–44; see also RAR 155,

175, 213, 225, 226, 236, 237, 247, 248, 249, 251, 253, 257, 258, 261 (referring reader to RAR 143–44 for discussion of WCD), is not the *coup de grace* the agency believes it to be. The spill-volume estimate provided by Earthfax, which responded to the July 2016 EA, was not intended as a WCD estimate, see Earthfax Report at 3, since the Tribes had not yet been provided with the amount or supporting calculations of the Corps' WCD. See Final EA at 91 (USACE_DAPL 71315) (stating only that it had determined "a largest possible release volume" "[b]ased on a worst case discharge (WCD) scenario specific to . . . Lake Oahe"). Even had Earthfax's estimate been a WCD estimate, the fact that it was lower than that calculated by ETP and the Corps would not resolve the many comments raising concrete disagreements about factual assumptions underlying the numbers used for the DAPL WCD.

Finally, that human error was considered in the design of the pumps and/or valves does not mean that it was considered in a worst-case-discharge analysis, nor does the Corps so contend. The Court does not understand the Corps to be claiming that the design of the pipeline precludes all opportunities for human error between detection of a leak and triggering of valve closure such that it need never be considered when determining a worst-case discharge. Indeed, such a statement would recall assurances like "God himself could not sink this ship" (*RMS Titanic*), or "You're confused, RBMK reactor cores don't explode" (Chernobyl). The Corps' response, then, does not address the heart of the issue raised by experts — namely, that the numbers used in the WCD assume, contrary to the idea of a worst-case discharge, that "correct decision and response is immediately initiated, and all equipment such as controls, sensors, pumps and valves function as intended." Holmstrom Decl., ¶ 11.

iii. Adverse Conditions

A third criticism of the worst-case-discharge calculation was that it did not comply with the portion of the WCD regulation that defines a WCD as "the largest foreseeable discharge of oil . . . in adverse weather conditions." 49 C.F.R. § 194.5 (emphasis added); see RAR 7503 (quoting same). Standing Rock's remand report expressed concern that "DAPL d[id] not address the adverse weather impact on the WCD for the shutdown of the pipeline." RAR 7503–04. In so doing, the report continued, it ignored important complicating factors like "harsh ND winter conditions, deep snow, ice cover limitations on oil spill sighting, extreme cold and availability and operation of the . . . shutdown valves in extreme environments." RAR 7504. The Corps did not respond to the first comment, see RAR 253–54, and in response to the second, it referred to the WCD response that, as noted above, focuses on a non-WCD estimate provided by Earthfax. See RAR 256 (referring to RAR 247–48, which in turn refers to RAR 143–44). It also provided information on equipment and personnel that are in place to respond to emergency situations and stated that "ETP provided design temperature specifications to . . . manufacturers to ensure that both high- and low-temperature concerns would be considered in the manufacturing of those materials and equipment." RAR 248.

As noted above, the Corps' reference to its catch-all WCD discussion that focuses largely on an Earthfax estimate does not move the needle. The fact that DAPL manufacturers incorporated low-temperature considerations into their designs runs into the same problem as discussed in the previous section: assurances that a product was designed to prevent certain problems does not answer the question of what the worst-case discharge would be if those problems occurred. Again, the Court cannot find that these rebuttals do away with the controversy created by expert comments.

* * *

As shown at great length in the preceding analysis, the Corps has not "succeeded" in "resolv[ing] the controversy" created by "consistent and strenuous opposition, often in the form of concrete objections to the Corps' analytical process and findings," by "organizations with subject-matter expertise." Semonite, 916 F.3d at 1086. As in Semonite, "[t]his demonstrates the 'something more' needed to show that the 'effects on the quality of the human environment are likely to be highly controversial.'" Id. (quoting 40 C.F.R. § 1508.27(b)(4)). The Corps has thus violated NEPA by determining that an EIS was unnecessary even though one of the EIS-triggering factors was met.

The Court acknowledges that in projects of this scope, it is not difficult for an opponent to find fault with many conclusions made by an operator and relied on by the agency. But here, there is considerably more than a few isolated comments raising insubstantial concerns. The many commenters in this case pointed to serious gaps in crucial parts of the Corps' analysis — to name a few, that the pipeline's leak-detection system was unlikely to work, that it was not designed to catch slow spills, that the operator's serious history of incidents had not been taken into account, and that the worst-case scenario used by the Corps was potentially only a fraction of what a realistic figure would be — and the Corps was not able to fill any of them.

The Court will therefore remand to the agency for it to complete such EIS. See id. at 1082 ("Implicating any one of the factors may be sufficient to require development of an EIS.") (citing Grand Canyon Trust, 290 F.3d at 347); Grand Canyon Trust, 290 F.3d at 340 ("If any 'significant' environmental impacts might result from the proposed agency action[,] then an EIS must be prepared before agency action is taken.") (quoting Peterson, 717 F.2d at 1415).

3. *Effect on Other Claims*

Having directed the Corps to prepare an EIS because the pipeline's "effects on the quality of the human environment are likely to be highly controversial," 40 C.F.R. § 1508.27(b)(4), the Court need not discuss the other two NEPA issues on which it remanded, see Standing Rock III, 255 F. Supp. 3d at 132–34, 136–40, given that the remedy for them would be the same. See Semonite, 916 F.3d at 1088 (remanding for preparation of EIS without discussing all grounds for appeal because, as here, "[i]n preparing its EIS, the Corps [would] have to revisit" those issues in any case) (citing American Iron & Steel Inst. v. EPA, 115 F.3d 979, 1008 (D.C. Cir. 1997)).

This holding also obviates examination of three groups of consultation claims: (1) Yankton's preserved claim that the Corps violated its consultation duties prior to granting the easement, see ECF No. 435-1 (Yankton Second MSJ) at 19–21; (2) Oglala's similar, also-preserved claim that the Corps did not consult with it under the Mni Waconi Act prior to issuing the EA and Mitigated FONSI; and (3) all Tribes' claims that the Corps violated its consultation duties during remand. Id. at 22–24; ECF No. 433-2 (Standing Rock Second MSJ) at 39–45; ECF No. 434 (Oglala MSJ) at 16–17; ECF No. 436-1 (Cheyenne River Second MSJ) at 18–22. This is because the Court has already found the decisions on which they claim the Corps failed to consult — that is, the EA, the Mitigated FONSI, and the Remand Analysis — to be invalid. In other words, a favorable holding by the Court on those other issues would not change the result in this case or offer the Tribes any greater relief than their success on the "highly controversial" issue already has.

B. NHPA

Three of the Tribes also "ask[] the Court to revisit" its prior holding that their claims under the National Historic Preservation Act were moot. See Standing Rock Second MSJ at 46–

47; see also Yankton Second MSJ at 19 (adopting this portion of Standing Rock's brief); Cheyenne River Second MSJ at 17–18 (same). The Court so found because the construction of the pipeline under and around Lake Oahe had been completed, thus inflicting all damage that could have been enjoined by a successful NHPA claim. Standing Rock V, 301 F. Supp. 3d at 61–64 (finding no "means by which the Court can still grant Plaintiffs 'meaningful relief'") (quoting Sierra Club v. U.S. Army Corps of Eng'rs, 803 F.3d 31, 44 (D.C. Cir. 2015)). The Tribes now contend that, even if the claim is moot, it falls into "an exception to the mootness doctrine for a controversy that is "capable of repetition, yet evading review." Kingdomware Techs. v. United States, 136 S. Ct. 1969, 1976 (2016) (quoting Spencer v. Kemna, 523 U.S. 1, 17 (1998)). The exception on which the Tribes rely "applies 'only in exceptional situations' where (1) 'the challenged action [is] in its duration too short to be fully litigated prior to cessation of or expiration,' and (2) 'there [is] a reasonable expectation that the same complaining party [will] be subject to the same action again." Id. (alterations in original) (quoting Spencer, 523 U.S. at 17). The parties here dispute both parts of this test.

The Court need only address the second element to find that this case does not qualify for the exception. The Tribes argue that "the legal questions presented" are "all but certain to arise again." Standing Rock Second MSJ at 47. Standing Rock's Historic Preservation Office, it states, "receives over 250 requests to consult with federal agencies annually, and participates in around 50," including "other crude oil pipelines proposed in the Tribe's ancestral homelands that will need Corps permits." Id. Because of this, the Tribe states that "[i]t is possible, if not probable, that such permitting would trigger the same dispute over the scope of § 106 review [under the NHPA] that happened here." Id.

The Tribes misconstrue the scope of the exception. "The 'wrong' that is, or is not, 'capable of repetition' must be defined in terms of the precise controversy it spawns." PETA v. Gittens, 396 F.3d 416, 422 (D.C. Cir. 2005). Here, that would not include all consultations with all agencies, as the Tribes suggest. Even narrowing the scope to the other pipelines mentioned by Standing Rock, the Tribe provides no evidence for its bare assertion that the same NHPA issue may arise in a hypothetical litigation over those pipelines. Without any supporting facts, the Court cannot call such a remote and unsubstantiated possibility a "reasonable expectation" that the same harm will befall the Tribe again.

In any event, even if the Tribes' NHPA claims were not moot, they would fail on the merits for the reasons stated in the Court's first Opinion in this case. See Standing Rock I, 205 F. Supp. 3d at 8–10 (finding Standing Rock unlikely to succeed on merits of its NHPA claim). The Tribes attempt to resurrect only one of the three NHPA issues considered in that Opinion — *viz.*, whether the Corps used too narrow a scope when evaluating whether DAPL would have an adverse effect on an identified historic property by "alter[ing], directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the National Register" under NHPA regulations. Standing Rock I, 205 F. Supp. 3d at 10 (quoting 36 C.F.R. § 800.5(a)(1)). The Court found the scope to be appropriate, rejecting the Tribes' "sweeping claim that the Corps was obligated in permitting this narrow activity — *i.e.*, certain construction activities in U.S. waterways — to consider the impact on potential cultural resources from the construction of the entire pipeline." Id. at 30. Guided by highly relevant and binding precedent, the Court refused to find "that a federal agency with limited jurisdiction over specific activities related to a pipeline is required to consider all the effects of the entire pipeline to be the indirectly or directly

foreseeable effects of the narrower permitted activity." Id. at 31; see also id. (citing Sierra Club v. U.S. Army Corps of Eng'rs, 803 F.3d 31, 34–35 (D.C. Cir. 2015)).

The Court now affirms this holding at the summary-judgment stage, finding that the Tribes' arguments lack merit for the same reasons stated in that Opinion. See id. at 30–32. Even if correct that the controversy is not moot, Plaintiffs would not prevail on this count.

C. Mni Waconi Act

Last up is the claim brought by Oglala under the Mni Waconi Act of 1988, Pub. L. No. 100-516, 102 Stat. 2566. (*Mni wiconi* means "water is life" in Lakota.) The Act declares that "the United States has a trust responsibility to ensure that adequate and safe water supplies are available to meet the economic, environmental, water supply, and public health needs of the Pine Ridge Indian Reservation," id. § 2(a)(4), which is home to the Oglala Sioux Tribe. It directs the Secretary of the Interior to, among other things, "plan, design, construct, operate, maintain, and replace a municipal, rural, and industrial water system, to be known as the Oglala Sioux Rural Water Supply System." Id. § 3(a). The Act further provides that "[t]itle to the [OSRWSS] shall be held in trust for the Oglala Sioux Tribe by the United States." Id. § 3(e). After the passage of the Act, the Corps duly created the OSRWSS as part of the Mni Waconi Project. The OSRWSS has its water intake 205 miles down the Missouri River from where DAPL now crosses Lake Oahe. See RAR 92; USACE_ESMT 1358–59.

Oglala argues that the Act imposes a continuing fiduciary duty on the Corps to "provid[e] clean drinking water to residents of the Reservation and ensur[e] that the OSRWSS is maintained and preserved for that purpose and others," Oglala MSJ at 14, and that by failing to consider the effects of the pipeline's Lake Oahe crossing on the Mni Waconi Project, the United States (through the agency) has breached that duty. The Corps rejoins that Oglala overstates the scope

of the trust duty, that any duty was not breached by the approval of a project so far upstream from the OSRWSS, and that any breach of duty was remediated during the remand. The Court will first consider the nature of the duty owed to Oglala before taking up whether there has been a violation of such duty.

As the Court has had occasion to note previously in this case, "The trust obligations of the United States to the Indian tribes are established and governed by statute rather than the common law." Standing Rock III, 255 F. Supp. 3d at 143 (alteration omitted) (quoting United States v. Jicarilla Apache Nation, 564 U.S. 162, 165 (2011)). In order to bring a breach-of-trust claim, therefore, Oglala "must identify a substantive source of law that establishes specific fiduciary or other duties, and allege that the Government has failed faithfully to perform those duties." United States v. Navajo Nation, 537 U.S. 488, 506 (2003). It is not enough that a statute places land in trust for the benefit of a tribe — it must also impose a "correlative duty of management" over the trust corpus in order to give rise to a cause of action. El Paso Natural Gas Co. v. United States, 750 F.3d 863, 897 (D.C. Cir. 2014).

The parties agree that the Mni Waconi Act does impose a trust duty on the United States, see ECF No. 450 (Corps Opp. to Oglala MSJ) at 7, but they disagree as to the scope of that duty. Whereas the Tribe believes that the Act's direction to "maintain . . . a municipal, rural, and industrial water system," § 3(a) (emphasis added), requires the Corps to continue to provide "adequate and safe water supplies" for the reservation, id. § 2(a)(4), the agency argues that this duty is "cabined by limited Congressional appropriations" as set out in the Act. See Corps Opp. to Oglala at 7 (citing Mni Waconi Act § 10(a)–(b)). Rather than creating a "perpetual trust obligation," the Corps argues, the Act limits any duty to the activities for which it provides

funding. Id. at 8; see also id. at 7 (citing Cobell v. Salazar, 573 F.3d 808, 811 (D.C. Cir. 2009); then citing Mni Waconi Act § 6(b)).

The Court need not determine the precise contours of the United States' trust duty toward Ogalala with respect to the OSRWSS because, regardless of scope, the Corps has not breached that duty by granting an easement under Lake Oahe for DAPL. The Tribe does not dispute that, at present, the OSRWSS does constitute an "adequate and safe water suppl[y]." Mni Waconi Act § 2(a)(4). The possibility of a future spill, which this Court has accepted is low, see Standing Rock III, 255 F. Supp. 3d at 127, does not render the drinking water inadequate and the Government's duty breached. This is particularly true since the OSRWSS takes its water from a point 205 miles downstream from where DAPL passes under Lake Oahe. See RAR 92; USACE_ESMT 1358–59.

The Tribe rejoins that the Corps owed it a fiduciary duty to consider the impacts of the Lake Oahe crossing on the Mni Waconi Project. See Oglala MSJ at 13 (citing Nw. Sea Farms Inc. v. U.S. Army Corps of Eng'rs, 931 F. Supp. 1515, 1520 (W.D. Wash 1996); then citing Muckleshoot Indian Tribe v. Hall, 698 F. Supp. 1504, 1523 (W.D. Wash 1988)). But the cases it cites, which in any case are not binding on this Court, discuss treaty rights, not statutory rights, and only the latter are at issue here. Even if there were a duty to consider the project's effects on the OSRWSS, moreover, the Court agrees with the Corps that, at the very least, it has done so during the remand. See, e.g., RAR 94 (finding the OSRWSS unlikely to be affected because of the predicted "near zero" concentration of hydrocarbons in water many miles upstream of the OSRWSS intake), 95 tbl.II-6 (listing predicted hydrocarbon concentrations at increasing points downstream of the DAPL crossing). The Court, accordingly, finds that the Corps has adequately performed any fiduciary duty imposed by the Mni Waconi Act.

D. Remedy

The Corps must prepare an EIS, but what is the status of the easement — and, ultimately, the oil — in the meantime? As it has done before in this case, the Court will order the parties to brief the issue of whether the easement should be vacated during the remand. See Standing Rock III, 255 F. Supp. 3d at 147–48. Certainly, "vacating a rule or action promulgated in violation of NEPA is the standard remedy." Humane Soc'y 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)). Because "[s]uch a move" would "carry serious consequences that a court should not lightly impose," Standing Rock III, 255 F. Supp. 3d at 147, the Court will ask the parties for dedicated briefing on the subject, which neither side addressed with much conviction in this round of briefing. As before, "[t]his is not surprising — absent knowledge of whether or to what extent the Court would remand, the parties were unable to fully address the Allied-Signal factors in their summary-judgment briefs." Id. (citing Allied-Signal, Inc. v. U.S. Nuclear Regulatory Comm'n, 988 F.2d 146, 150–51 (D.C. Cir. 1993)). The Court will therefore allow the parties to argue the issue of vacatur with the benefit of knowing the basis for remand set out above.

IV. Conclusion

For the foregoing reasons, the Court will grant in part and deny in part the Tribes' Motions for Summary Judgment and grant in part and deny in part the Corps' corresponding Cross-Motion for Summary Judgment. A contemporaneous Order so stating will issue this day.

/s/ *James E. Boasberg*
JAMES E. BOASBERG
United States District Judge

Date: March 25, 2020