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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

DELAWARE RIVERKEEPER NETWORK, and MAYA VAN ROSSUM, the DELAWARE RIVERKEEPER, Plaintiffs, v. UNITED STATES ARMY CORPS OF ENGINEERS et al., Defendants, and DELAWARE RIVER PARTNERS, LLC, Intervenor-Defendant.	Civil Action No. 1:20-cv-4824 Judge Noel L. Hillman Magistrate Judge Matthew J. Skahill **[proposed] BRIEF OF AMICUS CURIAE NATURAL RESOURCES DEFENSE COUNCIL**

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INTRODUCTION AND SUMMARY OF ARGUMENT

The Army Corps of Engineers inexplicably concluded that the construction of a massive deep-water port on the contaminated site of a former chemical and munitions plant, for the daily export of millions of gallons of liquefied natural gas (LNG), would have no significant environmental impacts. The Army Corps' refusal to take a "hard look" at the potential environmental impacts of this immense project (Dock 2) deprived the public of the promise of NEPA.

In their summary judgment brief, Plaintiffs Delaware Riverkeeper Network and the Delaware Riverkeeper (DRN) detail many impacts—from the risks of transporting dangerous bulk liquids through communities to the air pollution caused by 15 trucks traveling in and out each hour, 24 hours per day, seven days a week, and more—that warrant preparation of an environmental impact statement (EIS). Here, amicus Natural Resources Defense Council (NRDC) highlights a single glaring omission from the Army Corps' analysis: the risk that dredging and in-water construction will stir up polychlorinated biphenyls (PCBs), a hazardous class of synthetic chemical compounds that cause cancer and other life-threatening illnesses, and other toxic contaminants. The area of the Delaware River by the proposed construction site has long

violated regional and federal water quality limits for PCBs, but the Army Corps did not even attempt to analyze the potential impact of dredging and in-water construction on these already-exceeded limits. This omission alone requires remand for preparation of an EIS.

Because it is well established that dredging can cause particles embedded in sediment to be resuspended into a water body, the risk of resuspension is usually meticulously analyzed before dredging is authorized in contaminated areas such as that where Dock 2 is planned. Construction on contaminated river bottom sediment can also cause pollutants to reenter the water column. Yet when the Army Corps reviewed a request for a permit to dredge 665,000 cubic yards of sediment and construct a docking facility for enormous LNG transport ships at a contaminated former industrial site, the agency treated the risk of exacerbating PCB pollution in the river like an afterthought. It relied on paltry sampling, irrelevant analyses, and other agencies' tangential conclusions to determine that no significant environmental impacts were likely.

The Army Corps' failure to meaningfully consider how the proposed dredging and in-water construction could exacerbate pollution by PCBs and other toxic chemicals violated the agency's duties under NEPA to take a "hard

look" at the potential environmental consequences of the project. As a result, the permit should be set aside and remanded to the agency.

INTEREST OF AMICUS CURIAE

This case implicates one of NRDC's core missions—to protect people and ecosystems from exposure to toxic chemicals. Based on its decades of experience with PCB contamination and the environmental risks of dredging, NRDC can provide the Court with information that is essential to evaluate the Army Corps' determination that an EIS was not warranted here.[1]

FACTUAL BACKGROUND[2]

I. The Delaware River Estuary and the Repauno Site

The Delaware River Estuary (Estuary) is an important ecological resource (home to, among other protected species, Atlantic sturgeon and bald eagles), an economic engine (generating over $19 billion annually, including

[1] See Motion for Leave for additional detail about NRDC's experience with PCBs, dredging in polluted waterways, and the implementation of NEPA. No party's counsel authored this brief in whole or in part. No party or party's counsel contributed money intended to fund the preparation or submission of this brief. No person—other than amicus curiae, its members, or its counsel—contributed money that was intended to fund the preparation or submission of this brief.

[2] Because Plaintiffs' motion for summary judgment details the factual background of this case, *see generally* Pls.' Statement of Material Facts Not in Dispute, ECF No. 22-2, this section highlights only some facts related to the Delaware River Estuary and contamination at the Repauno site.

from a thriving fishing industry), and a source of drinking water for five percent of the U.S. population. *See* Gerald J. Kauffman, Jr., *The Delaware River Revival*, 77 Pa. Hist. 432, 433-34, 358-60 (2010), https://bit.ly/3flqQhT. The Estuary extends 130 miles from Cape May to Trenton, New Jersey. *See id.* at 434.

The Dock 2 permit authorizes dredging and construction at the Repauno site, a former industrial property of almost 2,000 acres along the Delaware River with a long history of hazardous waste discharges. *See* Second Am. Compl. ("N.J. A.G. Compl.") ¶¶ 2-3, *N.J. Dep't of Env't Prot. v. E.I. Du Pont de Nemours & Co.*, No. 19-CV-14765 (NLH) (D.N.J. Aug. 31, 2020), ECF No. 58. E.I. du Pont de Nemours & Company ("DuPont") began conducting research on and manufacturing explosives at the Repauno site more than 100 years ago. *See id.* This site proved to be a prolific source of explosives and lethal chemicals. ACE001924 (DRN Comments). Production, manufacturing, and disposal of toxic chemicals at the Repauno site continued unabated for a century; the vast array of chemicals produced on the site included nitric acid, sodium nitrate, fuming sulfuric acid, and ammonium nitrate. *See* N.J. A.G. Compl. ¶¶ 67-81.

After detecting high levels of contamination in and around the Repauno site in the 1980s, the New Jersey Department of Environmental Protection (NJDEP) required DuPont to conduct investigations and begin remediation of the entrenched contamination. *Id.* ¶¶ 86-89. This remediation is not complete. *Id.* ¶ 90. The site remains contaminated with toxic chemicals, from volatile organic compounds (VOCs) to PCBs. *Id.* ¶¶ 53, 93-95. In 2016, the Repauno site was still among the top ten point sources of PCB pollution in the Delaware River Estuary.[3] *See* Gregory J. Cavallo, Del. River Basin Comm'n, *Implementation of the PCB TMDLs in the Delaware Estuary and Bay* 28 (2018), https://bit.ly/3sPka11.

II. The Proposed Gibbstown Terminal

Delaware River Partners (DRP) seeks to construct a private port (the "Gibbstown Terminal") on the Repauno site to ship fracked LNG from Pennsylvania to importers across the Caribbean. ACE000946 (DRN Letter to DRBC). DRP's proposal anticipates that approximately 15 trucks per hour would enter the site, 24 hours a day, seven days a week. ACE002289 (Army

[3] The Clean Water Act defines a "point source" as "any discernable, confined and discrete conveyance . . . from which pollutants are or may be discharged." 33 U.S.C. § 1362(14).

Corps). Each truck would carry about 12,000 gallons of LNG, which would be pumped at the port from the truck to an LNG-carrying ship. *Id.*

The portion of the Repauno site where DRP seeks to build the LNG port is not spared its legacy of contamination.[4] According to New Jersey's Attorney General, investigations have revealed concentrations of PCBs as well as arsenic, lead, benzene, metals, ammonia, sulfate, and petroleum hydrocarbons on the site of the proposed Gibbstown Terminal. N.J. A.G. Compl. ¶¶ 84, 91, 94-97, 105 (describing contaminants found in the "RDA," the 125-acre "Redevelopment Area" along the Delaware River that DRP purchased).

III. Dangers of PCBs

PCBs are dangerous man-made chemicals that cause cancer and a host of other serious health conditions in humans and animals. *See* U.S. EPA, *Learn About Polychlorinated Biphenyls (PCBs)*, https://bit.ly/3n8dMRv (last visited Apr. 24, 2021). PCBs are one of the only classes of chemicals that the United States has ever banned altogether. *See* U.S. EPA, *Regulation of Chemicals under*

[4] DRP obtained a series of federal and state permits to construct the first dock ("Dock 1") at the Gibbstown Terminal in 2017. Construction of Dock 1 is now largely complete. *See* ACE000471 (Ramboll Atlantic Sturgeon Impact Assessment). The Army Corps' permit for Dock 2 authorizes dredging of almost double the volume of sediment that DRP dredged for Dock 1. *Compare* ACE000432 (2017 Army Corps Permit for Dock 1), *with* ACE002343 (2019 Army Corps Permit for Dock 2).

Section 6(a) of the Toxic Substances Control Act, *§ 6 Rules Prior to June 2016*, https://bit.ly/3grmHMs (last visited Apr. 24, 2021).

In 2015, an international cohort of scientists conducted a comprehensive review of the latest research on exposure to PCBs and concluded that PCBs fall into the highest category of confidence of carcinogenicity. *See* Int'l Agency for Rsch. on Cancer, *Polychlorinated Biphenyls and Polybrominated Biphenyls*, 107 IARC Monographs on the Evaluation of Carcinogenic Risks to Humans (IARC Monographs) 27, 37, 425-27, 439 (2016), https://bit.ly/32Fac7X. Scientists are confident that exposure to PCBs causes malignant melanoma, the deadliest form of skin cancer, and likely causes non-Hodgkin lymphoma and breast cancer, the second-highest cause of cancer deaths in women in the United States. *Id.*; *see also* Press Release, Ctrs. for Disease Control & Prevention, *Rates of new melanomas – deadly skin cancers – have doubled over last three decades* (June 2, 2015), https://bit.ly/3tVBWRS; Ctrs. for Disease Control & Prevention, *An Update on Cancer Deaths in the United States* (Feb. 23, 2021), https://bit.ly/3v8T7PL.

Exposure to PCBs also has harmful effects on the immune system, endocrine system, nervous system, and reproductive system in animals, and

likely causes similar effects in humans. *See* U.S. EPA, *Learn About Polychlorinated Biphenyls (PCBs)*.

PCBs last for a long time in soil and sediment. *See id.*; IARC Monographs at 74-75. They bioaccumulate as they move up the food chain, meaning that those higher in the food chain—such as humans—are at the highest risk of PCB exposure from the ingestion of contaminated fish, birds, and livestock. IARC Monographs at 74-75, 424.

As far back as the late 1980s, Delaware, New Jersey, and Pennsylvania recognized the risk of PCB contamination in the Estuary and began issuing fish consumption advisories. Del. River Basin Comm'n, *Total Maximum Daily Loads for Polychlorinated Biphenyls (PCBs) for Zones 2-5 of the Tidal Delaware River* i-ii (2003), https://bit.ly/3veYcq3. Those states determined that the levels of PCBs detected in all species of fish caught in the Estuary posed a risk to humans consuming them. *Id.*

In 2003, the U.S. Environmental Protection Agency (EPA), recognizing that existing controls on wastewater discharges were insufficient to keep levels of PCBs in the Estuary protective of human health, promulgated an absolute limit on contributions of PCBs into the Estuary from all sources, called a Total Maximum Daily Load (TMDL). *Id.* at i-iv.

The Estuary remains "impaired" for PCBs. ACE000309 (NMFS 2017 Biological Opinion). PCB concentrations continue to exceed regional water quality standards, *see* Jake Bransky et al., Del. River Basin Comm'n, *2020 Delaware River and Bay Water Quality Assessment* 37-38 (2020), https://bit.ly/3dVz6Xv,[5] and "high levels of PCBs [continue to] result[] in state-issued fish consumption advisories for certain species caught in the Delaware Estuary," ACE000309 (NMFS 2017 Biological Opinion). The EPA-issued TMDL is still in place. *See id.*; Letter from Mark Izeman, N.Y. Reg'l Dir. & Senior Att'y, NRDC, to DRBC Comm'rs & Staff 6 (Dec. 3, 2020), https://on.nrdc.org/3epMkuk.

IV. The Army Corps' FONSI and Permit

On February 25, 2020, the Army Corps issued DRP's requested permit pursuant to Section 404 of the Clean Water Act, 33 U.S.C. § 1344, and Section 10 of the Rivers and Harbors Act, 33 U.S.C. § 403, for dredging and construction of a second dock ("Dock 2") at the Gibbstown Terminal. *See* ACE002341-ACE002373. Prior to issuing the permit, the Army Corps had

[5] The Delaware River Basin Commission (DRBC), a federally created body, regulates activities in New Jersey, Pennsylvania, New York, and Delaware affecting water quality in the Estuary. *See* DRBC, *About DRBC* (Oct. 27, 2020), https://www.state.nj.us/drbc/about/. The DRBC establishes ambient water quality standards for pollutants, including PCBs. *See* DRBC, *TMDL*, at iv.

prepared a draft environmental assessment (Draft EA) with a "Finding of No Significant Impact" (FONSI), concluding that no EIS was necessary because the project purportedly would not have significant environmental effects.[6] *See* ACE002286-ACE002340.

The Dock 2 permit authorizes DRP to dredge an area of 45 acres to a depth of 43 feet below the river bottom, and to construct a dock to accommodate two large shipping vessels, two loading platforms, eight breasting dolphins, eleven mooring dolphins, and walkways on this contaminated site. ACE002341-42. The permit authorizes a mechanical bucket to remove 665,000 cubic yards of silt and clay sediment from the waterway and to load it onto boats for transport from the dredging site to confined land-based disposal facilities. ACE002342-43. The permit authorizes in-water construction for the dock structures, including pile driving with an impact

[6] The document is missing a signature from the Regulatory Branch Chief of the Philadelphia District of the Army Corps, *see* Pls.' Statement of Material Facts Not in Dispute, ECF No. 22-2 at 20-21; ACE002340, and contains text indicative of a draft, *see* ACE002306 ("Should we address impacts to water quality by activities after construction?"); *see also* Pls.' Compl., ECF No. 1 ¶¶ 118-124 (alleging that the Army Corps did not publish a final EA and explaining that DRN only obtained the Draft EA through a FOIA request); Pls.' Br. in Supp. of Mot. Summ. J., ECF No. 22-3 at 8-11 (arguing that the Army Corps violated NEPA by failing to complete an EA prior to issuing the Dock 2 permit). For these reasons, the brief describes the document as a "Draft EA."

hammer, a process that causes resuspension of particulate matter in addition to auditory disruption to fish habitat. ACE002290-ACE002332 (Draft EA); ACE002117-ACE002121 (NMFS 2019 Biological Assessment).

The Draft EA dismisses the risk of contamination by noting that the site is being remediated by NJDEP and the former property owner, and that in-river sediment testing showed sufficiently low contamination levels for disposal of dredged material at an off-site facility. ACE002307-ACE002308. (This issue is addressed in Part I(A), below.) The Draft EA does not discuss PCB pollution or analyze the hydrodynamics of the river, sediment stability, or other physical characteristics that affect resuspension of sediment contaminants. *See generally* ACE002286-ACE002340. Nor does it mention the regional ambient water quality standards for PCBs, the federal TMDL that applies to the very zone where the project is proposed, or the existing fish advisory for PCBs in the Estuary. *See generally id*.

ARGUMENT

I. The Army Corps failed to take a "hard look" at the impact of the Dock 2 project on water quality

The countless layers of contaminated sediment at the Repauno site, when disturbed, have the potential to unleash toxic chemicals that cause cancer in humans and undermine the vitality of the entire Delaware River

Estuary. By authorizing a major dredging and construction project at this site without taking a "hard look" at the risks of remobilizing contaminated sediment, the Army Corps contravened its obligations under the National Environmental Policy Act (NEPA). *See Citizens Advisory Comm. on Priv. Prisons, Inc. v. U.S. Dep't of Just.*, 197 F. Supp. 2d 226, 242-46 (W.D. Pa. 2001), *aff'd*, 33 F. App'x 36 (3d Cir. 2002).

NEPA infuses a "broad national commitment to protecting and promoting environmental quality . . . 'into the ongoing programs and actions of the Federal Government.'" *Robertson v. Methow Valley Citizens Counsel*, 490 U.S. 332, 348 (1989) (quoting 115 Cong. Rec. 40416 (1969) (remarks of Sen. Jackson)). "[T]he foremost of" NEPA's provisions is "the requirement that an agency prepare an Environmental Impact Statement [EIS] whenever a proposed 'major Federal action' will 'significantly affect() the quality of the human environment.'" *Twp. of Lower Alloways Creek v. Pub. Serv. Elec. & Gas Co.*, 687 F.2d 732, 739 (3d Cir. 1982) (quoting 42 U.S.C. § 4332(2)(C)). An EIS serves a dual purpose: "[i]t ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts," and it "guarantees that the relevant information will be made available to the larger audience that may

also play a role in both the decisionmaking process and the implementation of that decision." *Robertson*, 490 U.S. at 349.

When an agency's decision not to prepare an EIS is challenged, as here, the court is called upon to "determine whether [the] 'agency has supplied convincing reasons why potential impacts are truly insignificant.'" *Twp. of Lower Alloways Creek*, 687 F.2d at 741 (quoting *Maryland-National Cap. Park & Plan. Comm'n v. U.S. Postal Serv.*, 487 F.2d 1029, 1040 (D.C. Cir. 1973)). "[R]eview of the adequacy of a FONSI must determine whether the agency has taken a hard look at the consequences of its actions, based its decision on a consideration of the relevant factors, and provided a convincing statement of reasons to explain why a project's impacts are insignificant." *Del. Audubon Soc'y v. Salazar*, 829 F. Supp. 2d 273, 280 (D. Del. 2011) (quoting *Nat'l Parks & Conservation Ass'n v. Babbitt*, 214 F.3d 722, 730 (9th Cir. 2001) (alterations and internal quotations omitted)).

Here, the Army Corps failed to take a "hard look" at the potential impacts of dredging and in-water construction on water quality and failed to consider relevant factors including the strict, federally promulgated limits on PCBs in the Delaware River Estuary. *See Twp. of Bordentown, N.J. v. Fed. Energy Regul. Comm'n*, 903 F.3d 234, 248 (3d Cir. 2018).

For these reasons, the Army Corps' decision to forgo an EIS based on a conclusion that the project would have no significant environmental impacts was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); *see Twp. of Bordentown, N.J.*, 903 F.3d at 248 (reviewing an agency's decision under NEPA using the Administrative Procedure Act's "arbitrary and capricious" standard of review).

A. The Army Corps failed to take a "hard look" at the environmental effects of dredging and in-water construction on contaminated sediment

To uphold an agency's decision not to issue an EIS, a court must satisfy itself that the agency "adequately considered the potential impact[s]" of a project and "reasonably concluded that . . . [they] would be insignificant." *Twp. of Bordentown*, 903 F.3d at 260; *see also Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, 255 F. Supp. 3d 101, 122 (D.D.C. 2017) (court reviewing agency's decision to forgo an EIS must "ensure that no arguably significant consequences have been ignored." (quoting *TOMAC, Taxpayers of Michigan Against Casinos v. Norton*, 433 F.3d 852, 860 (D.C. Cir. 2006))). Because the Army Corps virtually ignored "the potential impact" of the dredging and in-water construction authorized by the Dock 2 permit on PCB

pollution and other toxic contamination in the Delaware River Estuary, its conclusion was unreasonable. *See* 903 F.3d at 260.

As in *Natural Resources Defense Council, Inc. v. U.S. Army Corps of Engineers* (*NRDC v. U.S. Army Corps II*), a case involving dredging in a waterbody near the Delaware River, the Army Corps "failed to take a hard look" at "the effect of resuspension on contaminant concentrations." 457 F. Supp. 2d 198, 227 (S.D.N.Y. 2006). "Dredging operations cause sediment to be suspended in the water column . . ." ACE002120 (NMFS 2019 Biological Assessment). When sediment is contaminated, as here with PCBs and other toxic chemicals, dredging reintroduces those contaminants that previously lay undisturbed into a body of water. The "resuspension of contaminated sediments" is a well-known environmental risk associated with mechanical dredging operations. ACE000297 (NMFS 2017 Biological Opinion). DRN alerted the Army Corps to this issue, commenting that "[d]redging; construction in the water, riverbank and on uplands; and site disturbance and stormwater systems will disturb PCBs, which have been found in near-shore sediments and in runoff from the site." ACE001884 (DRN Comments). DRN urged the Army Corps to conduct a "careful assessment" of the ramifications of "remobilization (and dewatering of dredged sediment) [that] will create re-release of PCBs into the estuary."

ACE001897 (DRN Comments). This the agency entirely neglected to do. *See* Pls.' Compl., ECF No. 1 ¶ 111; Pls.' Br. in Supp. of Mot. for Summ. J., ECF No. 22-3 at 25.

The Draft EA fails to engage in any analysis of resuspension, let alone consider "the possibility of different average resuspension rates in the various geomorphic areas as opposed to average rates" or "the existence and effect of hot spots." *NRDC v. U.S. Army Corps II*, 457 F. Supp. 2d at 228.

The Army Corps' assertion that "[n]o adverse impacts to water quality are expected," ACE002306 (Draft EA), is a "simple, conclusory statement[]" that is "not enough to fulfill [its] duty under NEPA." *Nat. Res. Def. Council, Inc. v. U.S. Army Corps of Eng'rs* (*NRDC v. U.S. Army Corps I*), 399 F. Supp. 2d 386, 408-09 (S.D.N.Y. 2005). The only explicit discussion of the water quality effects of resuspension in the Draft EA is the following unsupported statement:

> The water quality of the Delaware River in the vicinity of the Project Area may be temporarily impacted due to sediment disturbance caused by dredging activities. [Best Management Practices] will be implemented during construction to reduce sediment resuspension and associated effects on water quality. Potential impacts to water quality associated with dredging and in-water construction will be temporary and limited to a relatively small area of the Delaware River. Following the completion of construction activities, water quality is expected to return to pre-construction conditions. Should we address impacts to water quality by activities after construction?

ACE002306. This statement is nothing more than aspiration. The Draft EA lacks any analysis supporting the conclusion that potential water quality impacts will be "temporary and limited to a relatively small area." *Id*. Nor does it contain any analysis supporting the conclusion that "water quality is expected to return to pre-construction conditions" after the completion of construction. *Id*. Similar aspirational statements unsupported by analysis, let alone a "hard look," appear throughout the Draft EA, including in sections 6.3 ("sediment levels will return to preconstruction levels"), ACE2320, and 6.9 ("Sediment generation from the dredging and port operations should have minimal impacts to the river"), ACE002325. Such "conclusory remarks . . . do not equip . . . a court to review the agency's reasoning," or assess whether they are "supported by anything more than a hunch." *NRDC v. U.S. Army Corps I*, 399 F. Supp. 2d at 409 (quoting *Nat. Res. Def. Council, Inc. v. Hodel*, 865 F.2d 288, 298 (D.C. Cir. 1988)).

The Army Corps' conclusions about the water quality impacts of dredging and in-water construction rely primarily on two sources: NJDEP's regulatory authorizations and an underlying sediment analysis conducted

under the direction of NJDEP.[7] Neither source comes close to satisfying the Army Corps' duty to take a "hard look" at the risks of resuspension of PCBs and other toxic chemicals.

At first glance, the Draft EA's statements that "[s]ediment testing confirms that the material meets the New Jersey Department of Environmental Protection's requirements with regard to contaminant levels," ACE002288, and that "[s]ediment testing showed minimal contamination that would be available to spread in the waterway," ACE002324, could appear to suggest that the risk of resuspension of PCBs and other toxic chemicals during dredging and in-water construction is minimal. *See also* ACE002298 (explaining that "material to be excavated at Dock 2 has been fully characterized in accordance with NJDEP regulations" and finding that contaminant concentrations "do not exceed NJDEP remediation standards").

Not so. NJDEP's sediment analysis did not purport to quantify potential risks from resuspension at the dredging site, but rather focused on a different issue—whether the dredged sediment can be accepted at land-based disposal

[7] The Army Corps also had before it an analysis of risks to sturgeon from turbidity and total suspended solids caused by dredging, but this analysis did not consider the independent water quality effects of dredging or the effects of remobilizing PCBs and other toxic contaminants. *See* ACE000974-ACE000975 (Sturgeon Impact Assessment Report).

facilities, which are located elsewhere. *Compare* ACE002319-ACE002325 *with* 40 C.F.R. §§ 230.2, 230.5 (governing *discharge* of dredged material in disposal sites); *see also* N.J. Admin. Code § 7:7 App. G ("Bulk chemical analysis of the sediments to be dredged . . . will be evaluated by comparison to the appropriate Residential Direct Contact Soil Remediation Standards, . . . to determine if the dredged material to be disposed of requires precautions to avoid direct human exposure pathways during and after disposal in an upland [Confined Disposal Facility]."). Thus, to the extent the Army Corps draws conclusions about water quality impacts due to resuspension at the project site from NJDEP's sediment determinations, those conclusions are unsupported.

The Draft EA itself confirms the limited scope of the NJDEP's conclusions, stating "in-water sediment has been tested at the site and found to meet state standards for upland disposal." ACE002300. Meeting the standards for acceptance at a disposal site designed to accept contaminated sediment is not equivalent to carefully analyzing water quality impacts at the dredging site in a tidal river. *Cf.* Int'l Assoc. of Dredging Cos., *Confined Disposal Facilities* (2019), https://bit.ly/3xfGHYo (describing Confined Disposal Facilities as a "practical solution to a difficult problem" of "[w]hat to do with dredged

material that cannot be placed or reused immediately because of contamination").

Moreover, the underlying sediment analysis itself is insufficient to support the Corps' conclusions. To begin with, the analysis contains "entirely insufficient data and analyses . . . to draw reliable conclusions as to the risks to water quality from this project." Edmund A.C. Crouch, Ph.D., and Laura Green, Ph.D., *Comments on the effects on water quality of the proposed Dock 2 facility at DRP Gibbstown Logistics Center* 1, DRBC docket D-2017-009-2 (Feb. 28, 2020) (attached as Exh. A).[8]

[8] Crouch and Green submitted the attached comments on the underlying sediment analysis to DRBC in a related administrative proceeding. The Draft EA relies on the same limited sediment analysis. This Court should consider Crouch and Green's comments because they explain flaws and gaps in the Army Corps' analysis. "NEPA imposes a duty on federal agencies to compile a comprehensive analysis of the potential environmental impacts of its proposed action, and review of whether the agency's analysis has satisfied this duty often requires a court to look at evidence outside the administrative record, . . ." *Nat'l Audubon Soc'y v. Hoffman*, 132 F.3d 7, 14-15 (2d Cir. 1997); *cf. Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir. 1989) (acknowledging "it may sometimes be appropriate to resort to extra-record information to enable judicial review to become effective"). This is particularly true when, as here, the "omission of technical scientific information is . . . not obvious from the record itself." *Nat'l Audubon Soc'y*, 132 F.3d. at 15.

In addition to the overall "paucity of the analyses" (the study relies on just 17 composite samples[9] for a project that will dredge 665,000 cubic yards of sediment across 45 acres), Crouch & Green at 2, the sampling does not capture the relevant data to detect the scope of contamination in the sediment that will be affected by dredging and construction. To evaluate the degree of contamination that could be released in different phases of dredging, analyses of sediment at different depths are essential. *See id.* at 2-3. The composite analysis in the underlying study fails to capture distinct levels of contamination at different depths because "vertically homogenized sample[s]" were collected for most of the core locations. ACE000836 (Ramboll Plan Dock 2); *see* Crouch & Green at 2-3. The underlying study also failed to sample the layer of sediment that will become exposed after dredging is complete. This is a critical data point for evaluating water quality impacts because this is the sediment that will remain in the river and that dredging will expose to moving water. *See* Crouch & Green at 2-4.

The underlying study also lacks other critical elements of a resuspension analysis. The "magnitude of sediment resuspension and resulting transport of

[9] While the Draft EA refers to 50 samples, ACE002308, these samples were combined into 17 composites before testing based on particle characteristics for bulk analysis. ACE000835-ACE000836 (Ramboll Plan Dock 2).

contaminants during a dredging operation is influenced by many factors including physical properties of the sediment," water movement patterns (velocity and turbulence), vulnerability to storm events, and more. U.S. EPA: Office of Solid Waste & Emergency Response, *Contaminated Sediment Remediation Guidance for Hazardous Waste Sites* 6-21 to 6-22 (December 2005), https://bit.ly/32zsY0v. While there is no singular way to evaluate this complex phenomenon, analyses of resuspension generally include at least a thorough study of hydrological patterns in the body of water (to assess the likely movement of resuspended contaminants) and an analysis of the stability of the dredged area. *See id.*; Crouch & Green at 4-5. The stability of the dredged area is critically important because it can affect the exposure of untested sediment and additional sediment disturbances. *See* Crouch & Green at 4-5. The underlying study lacks any analysis whatsoever of water movement patterns or the stability of the dredged area. *See* ACE000830-ACE000842 (Ramboll Plan Dock 2).

In *NRDC v. U.S. Army Corps I*, the court held that the Army Corps violated both NEPA and the Administrative Procedure Act by failing to take a hard look at the impacts of dredging on contaminated sediment in the New York-New Jersey Harbor even though the Army Corps had already prepared

an EIS that "analyzed the environmental effects of resuspension of contaminated sediments as a result of dredging." 399 F. Supp. 2d at 392. There, the court found that the Army Corps failed to sufficiently consider how dredging would affect sampling associated with a remedial investigation EPA had ordered after the prior EIS had been prepared. *Id.* at 408-411. Here, as in *NRDC v. U.S. Army Corps I*, the Army Corps has issued a permit for a massive dredging project in an important waterway contaminated by "heavy industrial use." *See id.* at 388. But this time the Army Corps has not prepared any EIS, let alone one taking a "hard look" at the environmental effects of resuspension where there is known contamination in the waterway.

B. The Army Corps entirely failed to consider how PCB pollution from the Dock 2 project would contribute to existing violations of federal limits for PCBs in the Delaware River Estuary

The federal Clean Water Act requires states to establish water quality standards for all interstate waters. *See* 33 U.S.C. § 1313. States set these standards "to protect the public health or welfare" and "enhance the quality of the water," while considering the uses of water bodies. *PUD No. 1 of Jefferson Cty. v. Washington Dep't of Ecology*, 511 U.S. 700, 704-05 (1994) (quoting 33 U.S.C. § 1313(c)(2)(A)). When federal technology-based controls on individual discharges into navigable waters fail to bring a water body into compliance

with the state's water quality standards, that state must establish a "total maximum daily load" (TMDL) for offending pollutants. *See* 33 U.S.C. § 1313(d). A TMDL is a calculation of the maximum amount of a pollutant that can enter a water body without "violating applicable water quality standards." *Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281, 299 (3d Cir. 2015).

EPA promulgated a TMDL for PCBs in the Estuary in 2003. DRBC, *TMDL*, *supra* page 8, at i, iv. This TMDL establishes a maximum daily quantity of PCBs that the Estuary can receive from all sources to attain water quality standards that protect human health from carcinogenic effects. *Id.* at iv-viii. Recognizing that attaining these water quality standards could not "be achieved overnight," EPA opted for a staged approach to TMDL implementation. *Id.* at xii, 12. The first stage, promulgated in 2003 and still in place today, allocated a quantity of PCBs that can be released by all sources in different zones of the Estuary to bring those zones closer to attaining water quality standards. *Id.* at 12; Bransky et al., *supra* page 9, at 38.

At the time it promulgated the TMDL, EPA acknowledged that contaminated sites along the river were one of the largest sources of PCB pollution in the Estuary. DRBC, *TMDL*, at 13. For the zone of the Delaware River where Dock 2 is proposed (Zone 4), the TMDL for all sources is 56.71

mg/day. DRBC, *TMDL*, at ix. Because PCBs are so dangerous even in small quantities, this is a miniscule limit—less than the mass of two average raindrops (about 0.034 g, or 34 mg, each) per day. *See* Union University, "What is the Speed of Falling Raindrops?" (March 2001), https://bit.ly/3n7k57Q. This limit is still in place because this area of the Estuary continues to exceed the applicable ambient water quality standard for PCBs. Bransky et al., *supra* page 9, at 37-38. The TMDL is likely to become even more stringent soon because scientific analyses led the DRBC in 2013 to decrease the ambient water quality standard for PCBs in the Delaware River Estuary Zone 4 from 44.8 pg/L to 16 pg/L. DRBC, *TMDL*, at iv; DRBC, *DRBC Updates PCB & pH Water Quality Criteria for Delaware River & Bay* (Dec. 4, 2013), https://bit.ly/3elbmuO.

Before DRP had begun construction on the Gibbstown Terminal, the Repauno site alone was releasing more than three times as many PCBs as the federally authorized daily limit for *all sources together* in that zone of the Estuary under the TMDL in 2016. *See* Cavallo, *Implementation of the PCB TMDLs*, *supra* page 5, at 28. Nonetheless, when evaluating whether the proposed Dock 2 project would potentially have significant environmental impacts, the Army Corps did not consider at all whether the dredging and in-water construction

would contribute to violations of the ambient water quality standard for PCBs or the TMDL.[10] That failure alone violates the Corps' "hard look" obligations.

That the DRBC, the NJDEP, DuPont's successor, DRP, and EPA all share responsibility for implementing the TMDL does not absolve the Army Corps of its unique obligation to analyze the effect of the permit's authorized activities on these limits. An agency reviewing a project under NEPA cannot ignore environmental impacts merely because they are regulated by another agency. *See Coalition to Protect Puget Sound Habitat v. U.S. Army Corps. of Engineers*, 417 F. Supp. 3d 1354, 1364 (W.D. Wash. 2019). Regardless of who bears the ultimate responsibility for implementing the TMDL's strict limits, the Army Corps should have considered the impacts of dredging and in-water

[10] In addition to failing to consider the environmental impacts of Dock 2's in-water construction and dredging on PCB water quality limits, the Army Corps also failed to fully assess how construction and operational activities on the upland portion of the site create an additional risk from the release of PCB and other toxic pollution. ACE001884-85 (DRN Comment Letter). These on-land activities for Dock 2 will require the collection and diversion of stormwater runoff, which will be released into the River through outfalls or directly off the site. *See* Letter from Mark Izeman, *supra* page 8, at 5-6. The federally established TMDL, New Jersey water quality permitting laws, and DRBC regulations and approval conditions impose separate PCB stormwater control obligations on DRP at the Gibbstown Terminal site. *See id.* The Army Corps should have considered, but did not, how this additional source of PCB pollution into the River could impact the TMDL and water quality standards.

construction on these federal pollution limits when evaluating the potential environmental impacts of the Dock 2 permit. "The Corps' decision to ignore" the foreseeable releases and impacts of environmental contaminants caused by an activity that it permits because those contaminants are regulated by another entity "does not comport with the mandate of NEPA." *Id.*

CONCLUSION

The Army Corps must comply with its obligations under NEPA to fully analyze the potential environmental impacts of major federal actions, like the Gibbstown Terminal permit at issue here. Because the Army Corps failed to take a "hard look" at the risk of resuspension of toxic contaminants, including PCBs, from dredging and in-water construction, the decision to issue a permit for Dock 2 without preparing an EIS was arbitrary and capricious. The Court should vacate the permit and remand to the Army Corps for a thorough consideration of these issues.

Dated: April 27, 2021

Respectfully submitted,

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