



February 8, 2021

Sent via U.S. Certified Mail, Return Receipt Requested, and Email to:

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60-Day Notice of Intent to Sue: Violations of the Endangered Species Act Regarding Re: the Nationwide Permit Program

Dear Sirs/Madams:

This letter serves as formal notice pursuant to 16 U.S.C. § 1540(g) by the Center for Biological Diversity, Sierra Club, Friends of the Earth, Waterkeeper Alliance, Natural Resources Defense Council, Center for Food Safety, and Recirculating Farms Coalition ("Conservation Groups") of their intent to sue the U.S. Army Corps of Engineers ("Corps") for violations of the Endangered Species Act, 16 U.S.C. §§ 1531–1544 ("ESA"), in connection with the January 13, 2021, issuance, reissuance and modification of 16 nationwide permits ("NWPs") under Section 404 of the Clean Water Act ("CWA") absent formal programmatic ESA Section 7 consultation to ensure that the NWP program will not jeopardize listed species or adversely modify critical habitat in violation of the ESA.

The Conservation Groups are aware that the Biden administration has called for a review of the NWPs published by the Trump administration on January 13, consistent with President Biden's January 20, 2021 Executive Order "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis," and we are hopeful that this process will address and resolve the issues set forth herein and in the attached comment letters. However, we are filing this notice letter in an abundance of caution and to reiterate the Corps' legal duty to consult on the NWP program.

Therefore, unless the violations described in this letter are remedied, we intend to bring suit and will seek declaratory and injunctive relief as well as reasonable litigation costs and attorneys' fees for the Corps' violations of the ESA.

1. Legal Background

ESA Section 7 is a vital safeguard that requires each federal agency, in consultation with the U.S. Fish and Wildlife Service ("FWS") and/or the National Marine Fisheries Service ("NMFS") (together, the "Services"), to "insure"—at the "earliest possible time"—that "any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14. Section 7 also requires agencies to "carry[] out programs for the conservation of endangered species and threatened species." 16 U.S.C. § 1536(a)(1).

The Services' implementing regulations establish a detailed consultation process that agencies must follow to prevent jeopardy to listed species. Pursuant to that process, an agency must engage in consultation with the Services for *every agency action*—including "all activities or *programs* of any kind authorized, funded, or carried out," by an agency, *id.* § 402.02 (emphasis added)—that "may affect" a federally listed species or critical habitat in any manner, 50 C.F.R. § 402.14(a), (g).

The Services' regulations recognize that certain programmatic actions, such as the Corps' issuance of the NWP program,¹ "approve[] a framework for the development of future action(s)," and thus, "any take of a listed species would not occur unless and until those future action(s) are authorized, funded, or carried out." *Id.* § 402.02 (defining "framework programmatic action"). Accordingly, "an incidental take statement is not required at the programmatic level," *id.* § 402.14(i)(6), but rather is issued during subsequent project-specific consultation. Such project-specific consultation, however, "does not relieve the Federal agency of the requirements for considering the effects of the action as a whole." *Id.* § 402.14(c).

Indeed, the Services' regulations clearly contemplate that for programmatic actions such as the Corps' issuance of the NWPs, programmatic consultations and project-specific consultations work in tandem, with each playing a vital role in protecting imperiled species. *See* 84 Fed. Reg. 44,976, 44,997 (Aug. 27, 2019) (preamble to Services' 2019 ESA regulations reiterating that, "[a]s explained in the 2015" regulations, the ESA "still requires a programmatic consultation to meet the requirements of section 7(a)(2)[,]" even if "specific projects . . . developed in the future . . . are subject to site-specific stepped-down, or tiered consultations where incidental take is addressed").

¹ Importantly, when the Services issued regulations concerning programmatic consultations in 2015, they specifically used the Corps' NWP program as an example of a federal program subject to such consultation. *See* 80 Fed. Reg. at 26,835 ("Examples of Federal programs that provide such a framework include . . . the U.S. Army Corps of Engineers' Nationwide Permit Program.").

Programmatic consultation allows "a broad-scale examination of a program's potential impacts on a listed species and its designated critical habitat—an examination that is not as readily conducted when the later, action-specific consultation occurs on a subsequent action developed under the program framework." 80 Fed. Reg. 26,832, 26,836 (May 11, 2015). This enables the Services "to determine whether a program and its set of measures intended to minimize impacts or conserve listed species are adequately protective." *Id.* This is precisely the vital role that programmatic consultation has performed when *past* iterations of the NWPs underwent the mandatory consultation process. *See* Comments attached hereto (discussing NMFS' 2012 BiOp wherein it determined that the NWP program *was* jeopardizing listed species, and the subsequent 2014 BiOp requiring the Corps to adopt additional protective measures at the national level to prevent jeopardy).²

2. Factual Background

There can be no doubt that the NWP program—including all 16 of the NWPs that the Corps authorized on January 13, 2021³— "may affect," and is "likely to adversely affect," listed species. The NWP program allows for an unquantified and virtually limitless number of "discharges" of dredged or fill material to the nation's waters and wetlands in connection with various environmentally destructive activities, such as oil and gas pipeline construction, coal mining, commercial development, and aquaculture.⁴

Indeed, the Corps itself acknowledges that the program "may affect" listed species by disclosing in the 2021 Biological Assessment for the NWPs that *thousands* of project-specific ESA consultations occur each year for NWP activities.⁵ This confirms that NWP-authorized activities not only "may affect," but in hundreds of cases are "likely to adversely affect" listed species.

⁴ The comments attached hereto provide a discussion of the impacts to listed species from the various NWP activities.

² The attachments include comment letters provided to the Corps by the Conservation Groups and are incorporated herein by reference.

³ *See* Reissuance and Modification of Nationwide Permits, 86 Fed. Reg. 2744 (Jan. 13, 2021) (replacing 12 of the existing NWPs, specifically: NWP 12 (oil or natural gas pipeline activities; NWP 21 (surface coal mining activities); NWP 29 (residential developments); NWP 39 (commercial and institutional developments); NWP 40 (agricultural activities); NWP 42 (recreational facilities); NWP 43 (stormwater management facilities); NWP 44 (mining activities); NWP 48 (commercial shellfish mariculture activities); NWP 50 (underground coal mining activities); NWP 51 (land-based renewable energy generation facilities); and NWP 52 (water-based renewable energy generation pilot projects), and authorizing four new NWPs: NWP 55 (seaweed mariculture activities); NWP 56 (finfish mariculture activities); NWP 57 (electric utility line and telecommunications activities); and NWP 58 (utility line activities for water and other substances).

⁵ The 2021 Biological assessment is itself inadequate because it never "evaluate[s] the potential effects of the action on listed species," nor does it consider the "cumulative effects" of the NWP program, as the ESA implementing regulations require. 50 C.F.R. §§ 402.12(a), (f)(4).

In its 2014 Biological Opinion on the NWP program, NMFS explained in detail how NWP activities adversely affect listed species, stating that "[i]n addition to the direct loss of wetlands, the information available demonstrates that the aggregate impacts of the activities historically authorized by Nationwide Permits have been sufficiently large to change the flow regimes and physical structure of river systems and simplify or degrade aquatic ecosystems. These changes have resulted in declines in the abundance of endangered or threatened species." 2014 NMFS BiOp at 272.

NMFS further explained that several of the NWPs "may result in permanent impervious surface cover and the aggregate impacts of those Nationwide Permits have the potential to contribute to changes that correspond to large scale hydrologic phenomena that are critical to the survival and recovery of threatened and endangered species under NMFS' jurisdiction and their critical habitat. The aggregate impacts of these types of activities are not immediately evident on a case-by-case basis. . . ." *Id.* at 302. This leaves no doubt that the NWP program may adversely affect listed species, highlighting the need for programmatic consultation.

The Corps, however, has erroneously concluded that the issuance of the NWPs will have "no effect" on species protected under the ESA, and therefore programmatic consultation is not required, because no NWP authorizes an activity that may affect a listed species or critical habitat absent project-specific ESA Section 7 consultation. The Corps has thereby authorized 16 NWPs without considering the cumulative, adverse environmental consequences of the impacts of discharges under the NWP program on protected species or their critical habitat. Indeed, the Corps reauthorized the NWPs without having even basic procedures in place that would allow the agency to know the full extent of the harm to listed species from activities permitted under the NWPs.

3. Violations

a. <u>The Corps' failure to initiate and complete programmatic consultation on the</u> <u>NWPs violates the ESA</u>

As set forth in detail in the comment letters attached hereto (which are incorporated by reference), the Corps has erroneously and unlawfully determined that the NWP program does not require programmatic ESA consultation. However, the agency's "no effect" determination for the NWP program is legally and factually flawed. Indeed, the Corps' reliance on project-specific reviews to avoid programmatic consultation is completely inconsistent with the Services' implementing regulations and has been squarely rejected by two federal courts. *See National Wildlife Federation v. Brownlee*, 402 F. Supp. 2d 1, 10 (D.D.C. 2005) (holding that "overall consultation for the NWPs is necessary to avoid piece-meal destruction of [] habitat through failure to make a cumulative analysis of the program as a whole"); *Northern Plains Resource Council et al. v. U.S. Army Corps of Engineers*, No. 4:19-cv-00044 (D. Mont.), appeal pending, No. 20-35412 (9th Cir.) (holding that the Corps once again violated the ESA by failing to programmatically consult on the issuance of NWP 12, declaring NWP 12 unlawful and remanded it back to the Corps for compliance with the ESA).

As discussed above and in the attached comments, the NWPs constitute *both* "permits" requiring project-specific consultation when used for individual projects that "may affect" listed species—and a "program" (i.e., a nationwide scheme for CWA compliance) requiring ESA review at the *programmatic* level when issued by the Corps. *See* 84 Fed. Reg. at 44,997 (stating the ESA "still requires a programmatic consultation to meet the requirements of section 7(a)(2)[,]" even if "specific projects . . . developed in the future . . . are subject to site-specific stepped-down, or tiered consultations where incidental take is addressed").

The Corps' argument that programmatic consultation is not required where project-specific consultations will occur is therefore incompatible with the governing regulations. While NWP General Condition 18 provides that no NWP activity that may affect listed species can commence until the Corps has complied with the ESA by undertaking *project-specific* Section 7 consultation, that does not relieve the Corps from consulting on the NWP program as a whole. *See* 50 C.F.R. § 402.14(c).

Indeed, if the Court were to accept the Corps' flawed reasoning, then there would never be *any* need for programmatic consultation because *all* programmatic actions *also* require project-specific review for actions undertaken pursuant to the program. *See* 80 Fed. Reg. at 26,835 ("[A] second consultation and an action-specific incidental take statement still need to be provided when later actions are authorized under the program."). That would impermissibly render the regulation "entirely superfluous." *Nat'l Ass'n of Home Builders*, 551 U.S. 644, 668-69 (2007).

It is therefore unequivocal that project-specific consultation does not relieve the Corps of its duty to consult on the issuance of the NWPs at the programmatic level, and the Corps cannot justify a "no effect" determination for the issuance of the NWP program based on that later, site-specific consultation. Relying only on site-specific consultation fails to capture the cumulative impacts that the NWP program may have (and is having) on listed species. The only way to *ensure* that the NWP program will not jeopardize listed species is to consult at the programmatic level; otherwise the Services are not provided the opportunity to provide reasonable and prudent measures to ensure that the Corps gathers and analyzes sufficient data to prevent jeopardy to listed species, and to ensure that incidental take does not occur at unsustainable levels.

For the same reasons, the Corps' failure to undertake programmatic consultation on the NWPs also constitutes a violation of ESA Section 7(a)(1), which requires the Corps to "carry[] out [a] program[] for the conservation of endangered species and threatened species." 16 U.S.C. § 1636(a)(1).

In sum, after putting aside the Corps' faulty legal argument that the issuance of the NWPs has "no effect" because of later project-specific reviews, there is no serious dispute that the NWPs "may affect" listed species, as discussed above and in the attached comments. The Corps' "no effect" determination is therefore arbitrary, capricious, and in violation of the ESA.

b. The Corps has unlawfully delegated its ESA duties to permittees

As set forth in the attached comments, the Corps' reliance on permittees to notify the agency that NWP activities "might affect" listed species is insufficient to fulfill the Corps' ESA duties, and

the Corps has therefore failed to ensure that project-specific consultations will even occur for *all* NWP-authorized activities that may adversely affect listed species.

As the Corps acknowledges, it relies entirely on permittees to submit PCNs to the Corps pursuant to NWP General Condition 18 when the *permittees themselves* acknowledge that their activities "might" affect listed species—a determination that could result in project delays.⁶ However, the Corps *itself* has a duty to determine whether any actions it authorizes require consultation. *See* 50 C.F.R. § 402.14(a). Therefore, General Condition 18 fails to ensure that the Corps fulfills *its* obligations under ESA Section 7(a)(2), because it impermissibly turns the ESA's initial effect determination over to non-federal permittees, even though the Corps must make that initial determination.

This delegation to permittees to determine whether a project may affect listed species violates the ESA. *See Northern Plains Res. Council v. United States Army Corps of Eng'rs*, 2020 U.S. Dist. LEXIS 66745, *22 (Dist. Mont., April 15, 2020) (citing 50 C.F.R. § 402.14(a)); *cf. Gerber v. Norton*, 294 F.3d 173, 184-6 (D.C. Cir. 2002) (FWS may not delegate species protection obligations to a private permit applicant).

c. The NWPs may not be authorized or relied on by permittees until the Corps complies with the ESA

The Corps may not reissue or authorize the NWP program until it fulfills its obligation to consult under ESA Section 7. Section 7(d) of the ESA provides that "[a]fter initiation of consultation . . . the Federal agency . . . shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection(a)(2) of this section." 16 U.S.C. § 1536(d); 50 C.F.R. § 402.09. Section 7(d) thereby clarifies that the status quo must be maintained pending the completion of the required consultation process in order to fulfill the agency's mandate pursuant to ESA Section 7(a)(2).

Since discharge and fill activities under the NWP program "may affect" and are "likely to adversely affect" listed species, authorization of the NWPs may not be finalized absent the completion of formal programmatic ESA Section 7 consultation. Therefore, until the Corps completes consultation on the NWP program, no NWPs may be issued, and permittees may not rely on the NWPs to fulfill the legal requirements of CWA Section 404.

4. Conclusion

For the foregoing reasons, the Corps has failed to ensure that the NWP program is not likely to jeopardize the continued existence of listed species, and/or destroy or adversely modify

⁶ The Corps' claim that this "might" affect threshold is somehow stricter than the ESA's "may affect" threshold is meritless, as the words are synonymous. *See* Merriam-Webster Online Dictionary (stating that "may" is "sometimes used where *might* would be expected"). But even if there were some meaningful distinction between "might" and "may," the fact remains that the Corps delegates the critical threshold finding to a self-interested, non-federal entity.

designated critical habitat, in violation of the ESA. 16 U.S.C. § 1536(a)(2). The Corps must consider the cumulative impacts that the issuance of the NWPs will have on listed species and ensure through national-scale programmatic ESA consultation with both FWS and NMFS that the NWP program complies with the ESA, and incorporates sufficient data keeping, monitoring, and corrective actions to mitigate impacts and prevent jeopardy.

Please do not hesitate to contact the undersigned if we can provide additional information or otherwise assist in this matter, rather than having to resort to the judicial remedies provided by the ESA. We look forward to your prompt response.

Sincerely,

<u>/s/ Jared Margolis</u> Jared M. Margolis Center for Biological Diversity 2852 Willamette St. # 171 Eugene, OR 97405 (802) 310-4054 jmargolis@biologicaldiversity.org CENTER for BIOLOGICAL DIVERSITY



November 16, 2020

Submitted Via Regulations.gov and First-Class Mail (w/ attachments)

U.S. Army Corps of Engineers Attn: CECW-CO-R 441 G Street NW Washington, DC 20314-1000 nationwidepermits2020@usace.army.mil

Re: Comments on Proposal to Reissue and Modify Nationwide Permits; Docket Number COE-2020-0002 / RIN 0710-AA84

Thank you for the opportunity to comment on the U.S. Army Corps of Engineers' ("Corps") proposed reissuance and modification of the nationwide permits ("NWPs") under Section 404 of the Clean Water Act ("CWA").¹ These comments are submitted on behalf of the Center for Biological Diversity, Sierra Club, Friends of the Earth, Waterkeeper Alliance and Center for Food Safety ("Commenters"), and focus on: the Corps' continued failure to comply with Section 7 of the Endangered Species Act ("ESA") through programmatic formal consultation with the Fish and Wildlife Service ("FWS") and the National Marine Fisheries Service ("NMFS") (together, the "Services") on the NWP program; the failure of the Corps to ensure that the NWPs will have only minimal cumulative adverse effects on the environment as required under the CWA; and the need for compliance with the National Environmental Policy Act ("NEPA") through the preparation of an Environmental Impact Statement ("EIS") for the NWP program.²

Reauthorization of the NWPs will allow hundreds of thousands of "discharges" of dredged or fill material to the Nation's waters and wetlands over the course of five years in connection with a wide range of activities, including oil and gas development, pipeline construction, coal mining, residential and commercial development, commercial aquaculture, and other activities affecting waterways and wetlands. Yet, the Corps plans to authorize these NWPs without completing formal programmatic ESA consultation to ensure that the NWP program is not likely to jeopardize the continued existence of listed species or adversely impact designated critical habitat, and without meeting even basic procedural requirements to consider, analyze, and disclose the cumulative, adverse environmental consequences of NWP-authorized activities on the Nation's waters and wildlife.

¹ Proposal to Reissue and Modify Nationwide Permits, 85 Fed. Reg. 57,298 (Sep. 15, 2020) ("Proposed Rule").

² These comments are being submitted via Regulations.gov; however, because of the large number of exhibits/attachments, we are sending a thumb drive to the Corps at the address above with all the documents, and request that these be included in the record.

Indeed, the Corps seeks to authorize the NWP program for five more years without having even basic recordkeeping procedures in place that would allow the agency to know the full extent of the discharges that will occur pursuant to the NWPs. The Corps has, therefore, failed to ensure that listed species and critical habitats will not be jeopardized by NWP activities in violation of the ESA,³ or that the NWPs will not cause more than "minimal" adverse environmental effects, individually or cumulatively, to the Nation's aquatic environments, as the CWA requires.⁴

In sum, while the NWPs are intended to provide a streamlined means for compliance with Section 404 of the CWA for activities with no more than minimal adverse environmental impacts, thousands of projects each year rely on the NWPs to conduct activities in jurisdictional waters that cause sedimentation and contamination of waterways people and wildlife rely on. The cumulative effects of the activities allowed pursuant to the NWPs have resulted in significant environmental harm, and several of the proposed changes to the NWPs will exacerbate and increase such adverse impacts. The Corps' continued prioritization of the interests of regulated entities over its mandate to protect endangered species and the environment violates the ESA and the CWA.

I. LEGAL AND FACTUAL BACKGROUND

a. <u>CWA Section 404 Permits</u>

The CWA seeks to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and prohibits the discharge of pollutants—including dredged and fill materials— into "waters of the United States" (including wetlands) unless expressly authorized by permit.⁵ The Corps is charged with issuing permits to dredge and fill waters and wetlands pursuant to 33 U.S.C. § 1344 and 33 C.F.R. § 323.6(a), and issues two main types of permits for such activities: individual permits and general permits.⁶ Before issuing a permit, the Corps must ensure that the activity will not adversely affect the integrity of the nation's waters and their ecosystems.⁷

The Corps may issue—after publishing a notice and providing an opportunity for a public hearing—general permits for CWA compliance.⁸ NWPs are general permits that offer a streamlined alternative to the Corps' individual permitting process.⁹ When the Corps determines that a category of activities "will cause only minimal adverse environmental effects when

⁶ See 33 C.F.R. § 323.2(g), (h).

⁸ 33 C.F.R. § 325.5(c)(2) and 330.1.

⁹ See 33 C.F.R. § 330.1(b).

³ 16 U.S.C. § 1536(a)(2).

⁴ 33 U.S.C. § 1344(e)(1).

⁵ 33 U.S.C. §§1251(a); *id.* § 1311(a); *id.* § 1344; 33 C.F.R. § 323.3(a), (b) and (d).

⁷ See 40 C.F.R. § 230.1(a), (c); see also, e.g., id. § 230.10 (imposing practicable alternatives requirement).

performed separately, and will have only minimal cumulative adverse effect on the environment," it may issue a NWP authorizing activities nationwide for that category.¹⁰ As with the individual permitting process, the Corps must comply with NEPA and the ESA when it issues a NWP.¹¹

NWPs are issued "on a State, regional, or nationwide basis for any category of activities involving discharges of dredged or fill material" only if "the Secretary determines that the activities in such category are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment."¹² The Corps must "set forth in writing an evaluation of the potential individual and cumulative impacts of the category of activities to be regulated," and document the "potential short-term or long-term effects" of a proposed permit, and must predict its cumulative effects by estimating "the number of individual discharge activities likely to be regulated."¹³

The decision to allow certain activities to proceed under a NWP has far-reaching consequences. While individual permits are issued on a case-by-case basis, and require public notice and comment, if a NWP applies then "the applicant needs merely to comply with its terms, and no further action by [the Corps] is necessary."¹⁴ In contrast, for an individual permit the Corps must, among other things, examine all "practicable alternatives" to the proposed discharge; "[i]dentify and evaluate any special or critical characteristics of the candidate disposal site, and surrounding areas which might be affected by use of such site, related to their living communities or human uses;" make, document, and review "Factual Determinations" to determine whether the information in the project file is sufficient to provide the documentation required; and "[i]dentify appropriate and practicable changes to the project plan to minimize the environmental impact of the discharge …."¹⁵

NWPs require no public notice and are "designed to regulate with little, if any, delay or paperwork.¹⁶ In most cases, projects meeting the specific terms and conditions of a NWP may be constructed without *any* notification to, or further review by, the Corps.¹⁷ However, in certain cases the project proponent must submit a preconstruction notification ("PCN") to the Corps' district engineers and hold off on construction until the district engineers verify that the project meets the NWP's terms and conditions – though the Corps has now proposed removing that requirement for several NWPs and allowing projects to move forward after 45 days if the

- ¹³ 40 C.F.R. §§ 230.7(b), 230.11.
- ¹⁴ 33 U.S.C. § 1344(a), 40 C.F.R. § 230.5(b).
- ¹⁵ 40 C.F.R. § 240.5.
- ¹⁶ 33 C.F.R. § 330.1(b).
- ¹⁷ See 33 C.F.R. § 330(c), (e)(1).

¹⁰ 33 U.S.C. § 1344(e)(1); 33 C.F.R. § 330.2(b).

¹¹ See 42 U.S.C. § 4332(2)(C); 16 U.S.C. § 1536(a)(2); see also 33 C.F.R. § 330.4(b)(2), (f).

¹² 33 U.S.C. § 1344(e)(1); 33 C.F.R. § 323.2(g).

Corps has failed to respond to the PCN.¹⁸ If a project does not qualify for a NWP, however, the district engineers must deny verification and instead review the project under section 404's individual permitting process.¹⁹

b. The Endangered Species Act

Congress enacted the ESA in 1973 to provide for the conservation of endangered and threatened fish, wildlife, plants and their natural habitats.²⁰ The ESA imposes substantive and procedural obligations on all federal agencies with regard to listed and proposed species and their critical habitats.²¹

Under section 7 of the ESA, federal agencies must "insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined ... to be critical."²² Pursuant to this process, each federal agency must review its "actions" "at the earliest possible time" to determine whether an action may affect listed species or critical habitat.²³

The definition of agency "action" is broad and includes "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies," including programmatic actions, such as the Corps' issuance of the NWPs at issue here.²⁴ Likewise, the "action area" includes "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action."²⁵ If an agency action "may affect" and is "likely to adversely affect" listed species or critical habitat, then "formal consultation" is required.²⁶

²⁴ The ESA's implementing regulations broadly define an "action" to include "actions directly or indirectly causing modifications to the land, water, or air." 50 C.F.R. § 402.02.

²⁵ *Id*.

²⁶ 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a). Formal consultation is a process between the federal agency proposing to take an action (the "action agency") and the Service(s), depending on whether the action may affect listed marine species, terrestrial species, or both. Formal consultation commences with the action agency's written request for consultation and concludes with the Service's issuance of a "biological opinion" (also, "BiOp"), which considers the "effects of the action" – *i.e.*, the action's direct and indirect effects, together with the "environmental baseline," the effects of "interrelated or interdependent" activities, and the action's "cumulative effects." 50 C.F.R. § 402. The BiOp explains "how the proposed action will affect the species or

¹⁸ See id. §§ 330.1(e)(1), 330.6(a)(1).

¹⁹ See id. § 330.6(a)(2).

²⁰ *Id.* §§ 1531, 1532.

²¹ See id. §§ 1536(a)(1), (a)(2) and (a)(4) and § 1538(a); 50 C.F.R. § 402.

²² 16 U.S.C. § 1536(a)(2).

²³ 50 C.F.R. § 402.14.

The duties in ESA Section 7 are only fulfilled by an agency's satisfaction of the consultation requirements that are set forth in the implementing regulations for Section 7 of the ESA, and only after the agency lawfully complies with these requirements may an action that "may affect" protected species go forward.²⁷

For broad federal programs that may affect listed species, action agencies and the Services must engage in "programmatic consultation" to consider the cumulative impacts of the program and to guide implementation by establishing criteria to avoid, minimize, or offset adverse effects on listed species and critical habitat.²⁸ Such analysis "allows for a broad-scale examination of a program's potential impacts on a listed species and its designated critical habitat—an examination that is not as readily conducted when the later, action-specific consultation occurs on a subsequent action developed under the program framework."²⁹ For such federal programs, the ESA regulations contemplate programmatic consultation that does not provide for incidental take, but allows the Services to review the programmatic-level impacts of the agency action and implement program-level mitigation or other requirements (e.g. data collection and reporting). Project-specific consultation must then be undertaken for specific actions under the program, which is when incidental take is authorized.³⁰

a. <u>History of ESA Consultation on the NWP Program</u>

As set forth in detail below, the Corps' issuance of the NWPs is a programmatic agency action that "may affect" listed species, and therefore the Corps is required to undertake programmatic consultation on the NWP program in order to comply with its duties under Section 7 of the ESA. Indeed, in 2005 the D.C. District Court held that the Corps violated the ESA by not conducting Section 7 consultation on its reissuance of several NWPs in 2002.³¹ The *Brownlee* court rejected the Corps' reliance on project-specific consultation to meet its ESA duties, and found that "overall consultation for the NWPs is necessary to avoid piece-meal destruction of . . . habitat

its habitat" and "states the opinion" of the Service(s) as to whether the action is "likely to jeopardize the continued existence of listed species" or "result in the destruction or adverse modification of critical habitat." 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12(c). In developing a BiOp, the Service must rely on the best scientific and commercial data available. *Id.* § 1536(a)(2).

²⁷ Pac. Rivers Council v. Thomas, 30 F.3d 1050, 1055-57 (9th Cir. 1994).

²⁸ See 50 C.F.R. §§ 402.02, 402.14(i)(6); The two agencies charged with implementing the ESA, the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration, cited the Corps' NWP Program as a framework programmatic action requiring section 7 consultation. Fish and Wildlife Service & National Oceanic and Atmospheric Administration, Interagency Cooperation—Endangered Species Act of 1973, as Amended; Incidental Take Statements, 80 Fed. Reg. 26,832, 26,835 (May 11, 2015); see also id. at 26,832, 26,832, 26,837.

²⁹ *Id.* at 26,836.

³⁰ *Id*.

³¹ *Nat'l Wildlife Fed'n v. Brownlee*, 402 F. Supp. 2d 1, 7-8 (D.D.C. 2005) (finding the Corps' 2002 reissuance of the NWPs to be final agency action that required ESA consultation).

through failure to make a cumulative analysis of the program as a whole."³² The court reasoned that the ESA regulations are clear that "[a]ny request for formal consultation may encompass . . . a number of similar individual actions within a given geographical area or a segment of a comprehensive plan. This does not relieve the Federal agency of the requirements for considering the effects of the action as a whole."³³

Following that decision, the Corps initiated formal programmatic consultation with NMFS on the reissuance of the NWP program in 2007 and 2012; though the Corps failed to initiate consultation with FWS.³⁴ The Corps specifically acknowledged the *Brownlee* decision in initiating consultation with NMFS in 2007 and 2012.³⁵ On February 15, 2012, NMFS released a Biological Opinion ("2012 BiOp") (attached hereto), which found that the Corps' implementation of the NWP program *was jeopardizing* the continued existence of endangered and threatened species under NMFS's jurisdiction.³⁶

The Corps reinitiated consultation to address NMFS's concerns, and NMFS issued a new Biological Opinion in 2014 ("2014 BiOp") (attached hereto). Although the 2014 BiOp did not result in a jeopardy determination, it reiterated many of NMFS' concerns about the NWP program and required the Corps to undertake national-level measures to track and mitigate harm, including data collection, monitoring, and corrective actions, with semi-annual reporting requirements. It was only based on these measures that NMFS was able to conclude that the 2012 issuance of the NWPs would not jeopardize listed species within its jurisdiction. It is not clear whether the Corps has ever complied with these measures, as no semi-annual reports have been made publicly available.

Beginning with the 2017 iteration of the NWPs, the Corps decided to take a different approach. Rather than comply with its clear duty to undertake formal programmatic consultation on the reissuance of the NWPs, it instead made a "no effect" determination, thereby attempting to avoid the programmatic ESA consultation that the court in *Brownlee* specifically required. It is clear from statements made by the Corps' own Regulatory Program Manager that the Corps was well aware of the need to consult, but was attempting to avoid programmatic consultation with a dubious "no effect" determination that had no basis in science or reality. The Regulatory

³⁶ 2012 NMFS BiOp at 223.

³² *Id.* at 7-8.

³³ *Id.* (quoting 50 C.F.R. § 402.14(c)).

³⁴ The 2007 NWPs state that "the Corps will request programmatic Endangered Species Act Section 7(a)(2) consultation with the USFWS and NMFS;" however, it does not appear that the Corps ever followed through on initiating consultation with FWS. 72 Fed. Reg. 11,096.

³⁵ See 76 Fed. Reg. 9174, 9176 (Feb. 16, 2011) (noting, in the context of issuing the 2012 Nationwide Permits, that the court in *Brownlee* "determined that the Corps is obligated to consult" with FWS and NMFS and that, "[i]n response to that decision," the Corps was initiating programmatic consultation with both agencies); 71 Fed. Reg. 56,258, 56,261 (Sep. 26, 2006) (same as to 2007 Nationwide Permits). This undermines the Corps' argument that these consultations were somehow "voluntary."

Program Manager in fact acknowledged that "for the 2017 NWPs, *we would have to do a new consultation.*"³⁷ However, he went on to state that the Corps could make a "no effect" determination to avoid programmatic consultation and "[w]e could continue to make the national 'no effect' determination for each NWP reissuance until it is challenged in federal court and a judge rules against the Corps. If we lose in federal court, then we would start doing the national programmatic consultations again."³⁸

This is indeed what came to pass. The Corps' failure to initiate and complete formal programmatic consultation on the reissuance of NWP 12 in 2017 was challenged by several environmental groups in *Northern Plains Resource Council et al. v. U.S. Army Corps of Engineers*, No. 4:19-cv-00044 (D. Mont.), appeal pending, No. 20-35412 (9th Cir.). There, the Montana District Court held that the Corps once again violated the ESA by failing to programmatically consult on the issuance of NWP 12, declared NWP 12 unlawful and remanded it back to the Corps for compliance with the ESA. The Court also vacated NWP 12 and enjoined the Corps from verifying any projects under that NWP until the Corps completes a valid programmatic consultation; however, the nationwide reach of the vacatur and injunction was later limited to the Keystone XL project by the Supreme Court on motions for stay pending appeal.

Notably, the Montana court found "resounding evidence" that the Corps' reissuance of NWP 12 "may effect" listed species—the ESA's low threshold for triggering the consultation requirement.³⁹ It also found that the Corps was well-aware of the need to consult on the programmatic level, and yet erroneously relied on project-specific consultations to meet its ESA duties. The court held that project-specific reviews cannot meaningfully address the *cumulative* impacts to listed species from all Nationwide Permit 12-authorized activities. Such cumulative impacts—which may jeopardize the continued existence of species, as NMFS found in its 2012 Biological Opinion—can be analyzed *only* through programmatic review. The court further noted that the Corps knew of the need to consult based on the prior consultations with NMFS as well as the fact that the Services specifically listed the Corps' Nationwide Permit program as an example of a federal program subject to programmatic consultation in 2015 regulations regarding such consultations.⁴⁰

That case is currently under appeal in the Ninth Circuit; however, both the Ninth Circuit and the Supreme Court rejected, at least in part, motions for a stay pending appeal. The Ninth Circuit found that the Corps did not have a likelihood of success on the merits of the appeal, and while the Supreme Court narrowed the remedy to Keystone XL, it ostensibly upheld the merits of the ruling by denying a stay as to that project.

³⁷ Email from David Olson (Jan. 17, 2014) (attached hereto).

³⁸ *Id*.

³⁹ See W. Watersheds Project v. Kraayenbrink, 632 F.3d 472, 496 (9th Cir. 2011) ("The minimum threshold for an agency action to trigger consultation" is "low" (quoting 51 Fed. Reg. 19,926, 19,949 (June 3, 1986)).

⁴⁰ 80 Fed. Reg. at 26,835.

However, even though the ESA and implementing regulations clearly require consultation on the reissuance of the NWPs, the Corps—in direct contravention of a federal court order—has now doubled down and continued to make a "no effect" determination for the 2020 NWPs. As set forth below in more detail, this is arbitrary, capricious and in direct violation of the ESA.

b. The NWP program "may affect" and is "likely to adversely affect" listed species

There is no doubt that the Corps' issuance of the NWP program "may affect" listed species. Indeed, NMFS made that more than clear when it issued a *jeopardy* determination for the NWP program in 2012.⁴¹ And, in fact, the Corps itself acknowledges that the program "may affect" listed species by disclosing that *thousands* of project-specific ESA consultations occur each year for NWP activities (including 3,048 informal and 640 formal consultations in 2018 alone).⁴² This confirms that NWP-authorized activities not only "may affect," but in hundreds of cases are "likely to adversely affect" listed species.

In the most recent programmatic BiOp on the NWP program in 2014, NMFS explained in detail how NWP activities affect listed species, stating that "[i]n addition to the direct loss of wetlands, the information available demonstrates that the aggregate impacts of the activities historically authorized by Nationwide Permits have been sufficiently large to change the flow regimes and physical structure of river systems and simplify or degrade aquatic ecosystems. These changes have resulted in declines in the abundance of endangered or threatened species."⁴³

NMFS further explained that several of the NWPs "may result in permanent impervious surface cover and the aggregate impacts of those Nationwide Permits have the potential to contribute to changes that correspond to large scale hydrologic phenomena that are critical to the survival and recovery of threatened and endangered species under NMFS' jurisdiction and their critical habitat. The aggregate impacts of these types of activities are not immediately evident on a case-by-case basis.^{v44} This leaves no doubt that the NWP program may adversely affect listed

⁴¹ According to the 2012 NMFS BiOp, activities under the NWPs likely to have the greatest influence on listed resources under NMFS' jurisdiction (and this does not include activities that may affect species under FWS jurisdiction) result in over 43,000 activities every year, or about 217,000 activities over five years, resulting in a loss of nearly 26,000 acres of jurisdictional wetlands and other waters of the United States. That area, when combined with the nearly 140,000 acres already impacted by NWPs since 1982, "is sufficiently large to make cumulative impacts certain." As set forth below, this is why programmatic Section 7 consultation is not only warranted, but indeed vital to ensuring that the NWP program does not jeopardize the continued existence of listed species and destroy critical habitat in violation of the ESA.

⁴² 85 Fed. Reg. at 57,359 (noting that "each year, Corps districts initiate thousands of formal and informal ESA section 7 consultations for specific NWP activities").

⁴³ 2014 NMFS BiOp at 272.

⁴⁴ *Id.* at 302.

species, undermining the Corps' "no effect" determination, and highlighting the need for programmatic consultation.⁴⁵

Indeed, several NWPs pose significant risks to imperiled species and critical habitat. For example, NWP 36 (Boat Ramps) allows for increased water vessel traffic, which causes harm to marine mammals such as manatee through collisions. Similarly, NWP 51 (Land-Based Renewable Energy Generation Facilities) allows for the development of wind farms, which can kill birds, including protected species such as migratory birds, bald and golden eagles, as well as endangered Indiana bats and whooping cranes.⁴⁶ And NWP 12 (discussed in greater detail below) provides for the construction of fossil fuel pipelines that are known to spill and leak oil that can contaminate waterways and kill wildlife, such as endangered pallid sturgeon.

Several NWPs, including NWPs 3 (Maintenance), 12 (Oil and Gas Pipelines), 13 (Bank Stabilization), 14 (Linear Transportation Projects), NWP 17 (Hydropower Projects), 18 (Minor Discharges), 19 (Minor Dredging), 21 (Surface Coal Mining Activities), 29 (Residential Developments), 33 (Temporary Construction, Access, and Dewatering), 39 (Commercial Development), 40 (Agricultural Activities), 41 (Reshaping Existing Drainage Ditches), 44 (Mining Activities), 48 (Commercial Shellfish Aquaculture Activities), 49 (Coal Remining Activities), 50 (Underground Coal Mining Activities), 51 (Land-Based Renewable Energy Generation Facilities), and 52 (Water-Based Renewable Energy Generation Pilot Projects) have the potential to significantly increase the sediment loads in our Nation's waters, which can harm species such as endangered freshwater mussels and fish.⁴⁷ These projects also often involve

⁴⁷ Burkhead, N. M., & Jelks, H. L. (2001). Effects of suspended sediment on the reproductive success of the tricolor shiner, a crevice-spawning minnow. Transactions of the American Fisheries Society, 130(5), 959-968; Sutherland, A. B., & Meyer, J. L. (2007). Effects of increased suspended sediment on growth rate and gill condition of two southern Appalachian minnows. Environmental Biology of Fishes, 80(4), 389-403; Jones, E. B., Helfman, G. S., Harper, J. O., & Bolstad, P. V. (1999). Effects of riparian forest removal on fish assemblages in southern Appalachian streams. Conservation biology, 13(6), 1454-1465; Sutherland, A. B., Maki, J., & Vaughan, V. (2008). Effects of suspended sediment on whole-body cortisol stress response of two southern Appalachian minnows, Erimonax monachus and Cyprinella galactura. Copeia, 2008(1), 234-244; Zamor, R. M., & Grossman, G. D. (2007). Turbidity affects foraging success of drift-feeding rosyside dace. Transactions of the American Fisheries Society, 136(1), 167-176; Newcombe, C. P., & Jensen, J. O. (1996). Channel suspended sediment and fisheries: a synthesis for quantitative assessment of risk and impact. North American Journal of Fisheries Management, 16(4), 693-727; Newcombe, C. P., & MacDonald, D. D. (1991). Effects of suspended sediments on aquatic ecosystems. North American Journal of Fisheries Management, 11(1), 72-82.

⁴⁵ For a discussion of the potential for harm to ESA listed species under NMFS jurisdiction from NWP activities, *see* 2014 NMFS BiOp at 304-317.

⁴⁶ Commenters note that the Corps cited Solicitor's Opinion M-37050 which states that the Migratory Bird Treaty Act does not prohibit the incidental take of migratory birds. 85 Fed. Reg. at 57,351. This Solicitor's Opinion, however, was found to have violated the plain language of the Migratory Bird Treaty Act in *NRDC v. United States DOI*, No. 18-CV-4596 (VEC), 2020 U.S. Dist. LEXIS 143920 (S.D.N.Y. Aug. 11, 2020), as would any attempt to authorize the incidental take of migratory birds.

construction of powerlines, which pose a significant risk to migratory birds, such as whooping cranes.

NWP-authorized construction activities in waterways can harm species by increasing downstream sedimentation, which fills in the spaces between rocks that many species need to fulfill their life history requirements, including freshwater mussels, snails, darters and other benthic fishes, crayfishes, and aquatic salamanders. The impacts to aquatic dependent species from increased siltation and sedimentation are numerous, including both direct harm to species via gill clogging and injury, smothering, reduced visibility, and adverse changes to feeding, breeding, and sheltering substrates.⁴⁸

Another example is NWP 44 (Mining Activities), which authorizes mining activities that the Corps has previously admitted "often involve impacts to open waters, such as the mining of sand and gravel from large rivers."⁴⁹ This can devastate the substrates that species rely on for feeding and breeding, and can increase sediment loads and introduce contaminants into the water column, harming sensitive aquatic species.

Additionally, about 43% of the nation's endangered and threatened species rely directly or indirectly on wetlands for survival and many rely on streams; yet, NWPs 12, 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 allow up to a 1/2-acre of wetlands to be filled—and the Corps has proposed removing the 300 linear feet of stream loss limitation from several of these NWPs, as discussed further below. While this 1/2-acre constraint (and the 300 linear foot loss limit that should be maintained) may *seem* like a reasonable limitation at the project-specific level, when considered in the context of the tens of thousands of NWP activities that take place each year the cumulative amount of sedimentation and habitat loss becomes significant, and certainly "may affect" listed species. Further, for wetlands that are traditionally small (i.e. vernal pools, potholes), this amount of loss allows developers to eradicate sensitive habitat that imperiled species rely on, such as highly endangered vernal pool fairy shrimp.

As the Corps itself acknowledges, the ½ acre limit allows a headwater stream that has a mean width of 20 feet, to be filled for 1,089 linear feet.⁵⁰ This amount of fill, especially in sensitive

⁵⁰ 81 Fed. Reg. at 35,213.

⁴⁸ See Sutherland, A. B., Maki, J., & Vaughan, V. (2008). Effects of suspended sediment on whole-body cortisol stress response of two southern Appalachian minnows, Erimonax monachus and Cyprinella galactura. Copeia, 2008(1), 234-244; U.S. Fish and Wildlife Service (FWS). Determination of endangered status for the Rayed Bean and Snuffbox mussels throughout their ranges, Final Rule. 77 Fed. Reg. 08632 (2012).; U.S. Fish and Wildlife Service (FWS). Cumberland Arrow Darter Candidate Species Assessment Form (2013). 31 pp.; U.S. Fish and Wildlife Service (FWS). Endangered Species Status for the Big Sandy Crayfish and the Guyandotte River Crayfish, Proposed Rule. 80 Fed. Reg. 18710 (2015); Wheeler, B.A., E. Prosen, A. Mathis, and R.F. Wilkinson. 2003. Population declines of a long-lived salamander: A 20+ year study of hellbenders, *Cryptobranchus alleganiensis* Biological Conservation 109:151-156.

⁴⁹ 81 Fed. Reg. at 35,201.

headwater streams, cannot be considered a minor impact, and the cumulative loss of these waterways has far-reaching effects on many listed species that rely on them. In fact, NMFS staff has stated that:

1/2 acre of fill in one place has very different effects than the same amount of fill elsewhere. For example, in the current NWPs there is a proposed permit for tidal energy projects. NMFS NER is very concerned that if these projects are authorized in anadromous streams, some of them may have very damaging effects.⁵¹

Other NWPs pose risks of direct impacts to listed species. For example, seismic surveys conducted pursuant to NWP 6 (Survey Activities) have the potential to scare wildlife and may lead to habitat damage and loss. A seismic survey is conducted by creating a shock or "seismic" waves using explosives. For at least one NWP 6 project that Commenters are aware of – the TOCALA 3D Seismic Survey on approximately 161 square miles (103,000 acres) of lands just north of Big Cypress National Preserve in southwest Florida – a permittee surveyed a grid of shot holes installed every 250 feet with the use of "drill buggies" and "water buggies," including the placement of 2,600 shot holes within wetlands. Despite clear impacts to several species, including avoidance behavior and temporary habitat modification, the Corps concluded that this project was "not likely to adversely affect" listed species, and failed to consider the cumulative impacts of thousands of explosions on imperiled species in the area, including eastern indigo snake, red-cockaded woodpecker, wood stork, Florida panther, Florida bonneted bat, Audubon's crested caracara, and snail kite.

Other examples of impacts to listed species were detailed by NMFS in the 2012 and 2014 programmatic biological opinions on the NWP program. Indeed, the 2014 BiOp specifically stated that "numerous studies have identified cumulative impacts resulting from activities historically authorized by Nationwide Permits,"⁵² adding that "many of the species that have been listed as endangered or threatened were listed, in part, due to impacts from Corps-issued permits within waters of the United States where those species or the critical habitat occur."⁵³

For example, the 2012 BiOp noted that the placement of harvesting devices that were authorized by NWP 4 are known to capture and kill endangered and threatened species.⁵⁴ In particular, sea turtles such as green, Kemp's ridley, leatherback, and loggerhead sea turtles have been killed in pound net fisheries authorized by NWP 4.⁵⁵ Additionally, NMFS cited studies that estimated over 64,200 acres of seagrasses, "which provide important forage for the endangered West Indian manatee and which contain populations of the threatened Johnsons' seagrass, were

⁵⁵ Id.

⁵¹ Email from Susan-Marie Stedman, NOAA Fisheries Office of Habitat Conservation (Dec. 8, 2010) (attached hereto).

⁵² 2014 NMFS BiOp at 261.

⁵³ 2014 NMFS BiOp at 304. *See also* 2014 NMFS BiOp, Table 5.6 at 299.

⁵⁴ 2012 NMFS BiOp at 169.

moderately or severely damaged by boat propellers in Florida partially as an indirect effect of boat ramps authorized by NWP 36.⁵⁶ NMFS also noted that between 1986 and 1992, watercraft collisions accounted for 37.3% of manatee deaths, where the cause of death could be traced back to the increased access to watercrafts.⁵⁷

NMFS' 2012 BiOp documented several NWPs that authorize activities in areas overlapping with specific threatened or endangered species' habitat. NMFS in fact cited a 1998 study, which determined that "about 40% of area affected by Nationwide Permits resulted in adverse to substantially adverse effects to the habitat of endangered or threatened species."⁵⁸ However, the extent of the impacts remains unknown: NMFS found that reviews of CWA section 404 determined that "the Corps either did not take sufficient action to address cumulative impacts [], or it did not collect sufficient information to consider the cumulative impacts of the activities it authorized, particularly Nationwide Permits."⁵⁹

Some further examples of impacts to imperiled species from NWP activities include the following, which confirm that the NWPs have more than minimal adverse environmental impacts and highlight the need for programmatic consultation:

- In listing the Sacramento River winter-run Chinook salmon, NMFS stated that bank stabilization and dredging permitted under NWPs has destroyed or degraded aquatic habitats on which the species depends for survival. 57 Fed. Reg. 36,626 (Aug. 14, 1992). NMFS also listed the Sacramento River winter-run Chinook salmon population in part due to USACE's failure to assess the cumulative impacts of activities authorized under CWA section 404, including the "additive effects of the continued development of waterfront, riverine, coastal, and wetland properties." 63 Fed. Reg. 11,482, 11,500 (Mar. 9, 1998).
- In proposing to list the Suisun thistle and soft bird's-beak, two endangered plants that occur in the tidal marsh habitats of the San Francisco Bay, FWS noted that USACE's NWP program is "inadequate" to protect these plants from development in the San Francisco Bay. 60 Fed. Reg. 31,000, 31,003 (June 12, 1995).
- In designating critical habitat for the southern DPS of the Pacific eulachon, NMFS stated that "actions of concern include dredge and fill, mining, diking, and bank stabilization activities authorized or conducted by the USACE." 76 Fed. Reg. 65,324, 65,346 (Oct. 20, 2011).
- In designating critical habitat for the southern population of green sturgeon, NMFS stated that "actions of concern include dredge and fill, mining, diking, and bank stabilization activities authorized or conducted by [USACE]." 74 Fed. Reg. 52,300, 52,341 (Oct. 9, 2009).

⁵⁶ *Id.* at 176.

⁵⁷ Id.

⁵⁸ 2014 NMFS BiOp at 263.

⁵⁹ *Id.* at 262.

- In proposing to designate critical habitat for the Lower Columbia River population of coho salmon and the Puget Sound population of steelhead, NMFS stated that "actions of concern include dredging and filling, mining, diking, and bank stabilization activities authorized or conducted by the USACE." 78 Fed. Reg. 2726, 2747 (Jan. 14, 2013).
- Several of NMFS' designations of critical habitat acknowledge the potential impacts of Corps' permitted activities to the identified features important to the conservation of the subject species. *See e.g.* 63 Fed. Reg. 46693 (September 2, 1998); 70 Fed. Reg. 52630 (September 2, 2005); 78 Fed. Reg. 2725 (January 14, 2013); 64 Fed. Reg. 24049 (May 5, 1999); and 73 Fed. Reg. 7816 (February 11, 2008).

It is therefore unambiguous that the Corps' issuance of the NWP program "may affect," and is "likely to adversely affect" listed species and critical habitat, requiring consultation pursuant to ESA Section 7 as set forth further below.

c. National Environmental Policy Act

Congress enacted the National Environmental Policy Act ("NEPA") in 1969, directing all federal agencies to assess the environmental impact of proposed actions. The Council on Environmental Quality (CEQ) has promulgated uniform regulations to implement NEPA, which are binding on all federal agencies.⁶⁰

The CEQ NEPA regulations were promulgated in 1971, became regulations in 1978, and have been governing federal agency compliance with NEPA in the decades since. However, CEQ recently implemented revisions to their NEPA regulations. *See* Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304 (July 16, 2020). These regulations are unlawful and already subject to four suits. *See* Compl. for Declaratory and Injunctive Relief, *California v. Council on Env't Quality*, No. 3:20-cv-06057 (N.D. Cal. Aug. 28, 2020); *Compl., Env't Just. Health All. v. Council on Env't Quality*, No. 3:20-cv-06043 (S.D.N.Y. Aug. 6, 2020); *Compl., Wild Va. v. Council on Env't Quality*, No. 3:20-cv-00045-NKM (W.D. Va. July 29, 2020); Compl. for Declaratory and Injunctive Relief, *Compl., Env't Quality*, No. 3:20-cv-05199 (N.D. Cal. July 29, 2020). As such, the Corps should continue to apply the CEQ's longstanding NEPA regulations and make effort to take a hard look at the impacts of the NWP reissuance through the preparation of an environmental impact statement.

The CEQ regulations implementing NEPA provide that "NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA."⁶¹ The purpose of this requirement is to "help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance

⁶⁰ 42 U.S.C. § 4342; 40 C.F.R. §§ 1500-1508.

⁶¹ 40 C.F.R. § 1500.1(b).

the environment," as well as ensure that the public has information that allows it to question, understand, and, if necessary, challenge the decision made by the agency.⁶²

To achieve these objectives, NEPA requires all federal agencies to prepare a "detailed statement" for any "major Federal actions significantly affecting the quality of the human environment."⁶³ This statement—the Environmental Impact Statement ("EIS")—must describe the environmental impacts of the proposed action.⁶⁴ The EIS is an "action-forcing device" that ensures NEPA's goals "are infused into the ongoing programs and actions" of the federal government.⁶⁵

When it is not clear whether or not an action will significantly affect the environment (and thus require the preparation of an EIS), the regulations direct agencies to prepare a document known as an Environmental Assessment ("EA") in order to determine whether an EIS is required.⁶⁶ An EA is "a concise public document" that "[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact."⁶⁷ An EA "shall include brief discussions of the need for the proposal, of alternatives as required by section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted."⁶⁸

The determination as to whether an action is "significant" under NEPA turns on an analysis of several factors, based on the context and intensity of the impacts. Despite recent regulatory changes that have attempted to withdraw the CEQ regulations regarding "significance" (which are now being challenged in court), traditionally an agency looks to the NEPA "significance factors" found in 40 C.F.R. § 1508.27(b), which includes an analysis of the short- and long-term effects, and an evaluation of the impacts to public health and safety, the unique characteristics of the affected area (i.e. proximity to wetlands or other ecologically critical areas), the degree to which the effects are highly controversial or involve unknown risks, whether it is reasonable to anticipate a cumulatively significant impact on the environment, and the degree to which the action may affect threatened or endangered species.

If the agency concludes in an EA that a project may have significant environmental impacts, then it must prepare an EIS.⁶⁹ If an EA concludes that there are no potentially significant impacts to the environment, the federal agency must describe why the project's impacts are insignificant and issue a FONSI.⁷⁰ If the agency issues an EA/FONSI, it must make a convincing case for a

- ⁶³ 42 U.S.C. § 4332(2)(C).
- ⁶⁴ *Id.* § 4332(2)(C)(i), (ii).
- ⁶⁵ 40 C.F.R. § 1502.1.
- ⁶⁶ 40 C.F.R. §§ 1501.4(b), 1508.9.
- ⁶⁷ 40 C.F.R. § 1508.9(a).
- ⁶⁸ 40 C.F.R. § 1508.9(b).
- ⁶⁹ *Id.* § 1501.4.
- ⁷⁰ *Id.* § 1508.13.

⁶² 40 C.F.R. § 1500.1

finding of no significant impact on the environment, since the FONSI is crucial to a court's evaluation of whether the agency took the requisite hard look at the potential impacts of a project.

An EIS or EA must also take a "hard look" at the environmental effects of the proposed action by including a "full and fair discussion" of the "direct," "indirect," and "cumulative" effects, as well as a discussion of "[m]eans to mitigate adverse environmental impacts."⁷¹ Direct impacts are "caused by the action and occur at the same time and place."⁷² Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."⁷³ Cumulative impacts are the "incremental impact[s] of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."⁷⁴ "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."⁷⁵

The EIS or EA must also inform federal agency decision-makers and the public of the "reasonable alternatives" that would "avoid or minimize adverse impacts or enhance the quality of the human environment."⁷⁶ This analysis of alternatives is the "heart" of the document—i.e., where the agency should "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options."⁷⁷ The EIS or EA must "[r]igorously explore and objectively evaluate all reasonable alternatives," including the alternative of "no action."⁷⁸

II. <u>COMMENTS ON THE REISSUANCE OF THE NWPS</u>

A. The Corps' Failure to Consult with FWS and NMFS on the Reissuance of the NWPs Violates ESA Section 7

1. The Corps Must Complete Formal Programmatic ESA Section 7 Consultation on the Issuance of the NWPs

The Corps' issuance of the NWP program is an agency "action" within the meaning of the ESA because the NWPs constitutes *both* "permits" when used for individual projects—requiring project-specific consultation when NWPs are used for individual projects that "may affect" listed

- ⁷⁶ Id. § 1502.1.
- ⁷⁷ Id. § 1502.14.

⁷⁸ *Id.* § 1502.14(a), (d).

⁷¹ *Id.* §§ 1502.1, 1502.16(a), (b) & (h), 1508.8, 1508.25(c). *See also Barnes v. U.S. Dep't of Transp.*, 655 F.3d 1124, 1331 (9th Cir. 2011).

⁷² *Id.* § 1508.8(a).

⁷³ *Id.* § 1508.8(b).

⁷⁴ Id. § 1508.7.

⁷⁵ Id.

species—and a "program" (i.e., a nationwide scheme for CWA compliance) requiring ESA review at the *programmatic* level when issued by the Corps.⁷⁹ Indeed, the ESA's implementing regulations specifically mandate consultation on "regulations" and "programs" irrespective of whether project-specific consultations might also occur:

Any request for formal consultation may encompass, subject to the approval of the Director, a number of similar individual actions within a given geographical area, a programmatic consultation, or a segment of a comprehensive plan. The provision in this paragraph (c)(4) does not relieve the Federal agency of the requirements for considering the effects of the action or actions as a whole.⁸⁰

In fact, when the Services issued regulations in 2015 defining framework programmatic consultations, they specifically used the Corps' NWP program as an example of a federal program requiring programmatic consultation, leaving no doubt that such consultation is mandatory.⁸¹ The Service did so again when it amended the Section 7 consultation regulations in

- (a) actions intended to conserve listed species or their habitat;
- (b) the promulgation of regulations;
- (c) the granting of licenses, contracts, leases, easements, rights-of-way, *permits*, or grants-in-aid; or
- (d) actions directly or indirectly causing modifications to the land, water, or air.

50 C.F.R. § 402.02 (emphasis added).

⁸⁰ 50 C.F.R. § 402.14(c)(4)

⁸¹ 80 Fed. Reg. at 26,835 ("Examples of Federal programs that provide such a framework include ... the U.S. Army Corps of Engineers' Nationwide Permit Program."). The Corps erroneously asserts that the Services identified the NWP program "as an example of a framework action at a national scale that can address ESA section 7 consultation requirements at a later time as appropriate...." 85 Fed. Reg. at 57,357–358. But this misstates and misinterprets the Services' statements—conflating the later issuances of site-specific incidental take statements with the need to carry out programmatic consultation over the framework established by the NWP program. *See* 80 Fed. Reg. at 26,836. As the Services noted:

For purposes of a biological opinion on a framework programmatic action, the Services typically evaluate the potential implementation of the program as "effects of the action." The Services can legitimately draw a distinction between "effects" of the program and the purpose of a biological opinion on that program and "take" and the purpose of an incidental take statement in the subsequent consultation on later actions carried out under the program.

⁷⁹ "Action means all activities or *programs* of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. Examples include, but are not limited to:

2019, stating that programmatic consultation was appropriate for regional or national programs such as "a program that authorizes bank stabilization"⁸²—activities covered by NWP 13. In such instances, the ESA "still requires a programmatic consultation to meet the requirements of section 7(a)(2)[,]" even if "[a]s specific projects are developed in the future, they are subject to site-specific stepped-down, or tiered consultations where incidental take is addressed."⁸³

This clear requirement to conduct programmatic consultation—which the Corps unlawfully ignores—ensures that the Services analyze both the site-specific and cumulative impacts of programs and allows them to issue programmatic biological opinions establishing appropriate program-wide criteria for avoiding, minimizing, and mitigating adverse impacts.⁸⁴ This is precisely the vital role that programmatic consultation has performed when *past* iterations of the NWPs underwent the mandatory consultation process, as discussed above.

However, despite having lost twice on this issue in federal court, the Corps continues to insist that the NWPs need not undergo programmatic consultation because any projects potentially affecting listed species will be subject to project-specific review pursuant to General Condition 18. That argument wrongly ignores the purpose and function of programmatic consultation. The NWPs are used thousands of times per year, including for projects such as oil and gas pipelines that cross hundreds of waterways, often in close proximity to each other. Project-specific reviews cannot meaningfully address the *cumulative* impacts to listed species from all Nationwide Permit authorized activities. Absent review at the programmatic level, the Corps will not take into account the cumulative loss or contamination of habitat outside a project area, and so will not consider the cumulative effects of NWP-authorized activities across the full extent of the program. Such cumulative impacts—which may jeopardize the continued existence of species, as NMFS found in its 2012 Biological Opinion—can be analyzed *only* through programmatic review.⁸⁵

Id. The Corps also notes that the Services' amended the definition of "effects of the action" in 2019 by eliminating the different categories of effects: direct, indirect, interrelated, and interdependent. Regulations for Interagency Cooperation, 84 Fed. Reg. 44,976 (Aug. 27, 2019). However, in doing so, the Services were clear that "effects of the action include all consequences of a proposed action, including consequences of any activities caused by the proposed action[,]" and that the Services "do not intend for these regulatory changes to alter how we analyze the effects of a proposed action." *Id.* at 44,97

⁸² 84 Fed. Reg. at 44,992–93.

⁸³ *Id.* at 44,997. The Services also explicitly considered exempting all programmatic plans, such as the NWP program, from the duty to reinitiate consultation following the listing of a species or the designation of critical habitat, but declined to do so. *Id.* at 45,010.

⁸⁴ See 50 C.F.R. §§ 402.02, 402.14(g); see also 80 Fed. Reg. 26,832, 26,835-36 (May 11, 2015) (Services' regulations concerning programmatic consultations, which used the Corps' Nationwide Permit program as an example of a federal program subject to such consultation).

⁸⁵ See Cottonwood Envtl. Law Ctr. v. U.S. Forest Serv., 789 F.3d 1075, 1082 (9th Cir. 2015) ("[P]roject-specific consultations do not include a unit-wide analysis comparable in scope and scale to consultation at the programmatic level."); *Nat'l Wildlife Fed'n v. Brownlee*, 402 F. Supp.

And there is no doubt that the issuance of the NWPs "may affect" listed species. Indeed, as discussed above, the Corps itself acknowledges that thousands of ESA consultations are required for NWP-activities, and statements in the previous NMFS BiOps definitively established that the program affects listed species, clearly meeting the low threshold triggering the agency's Section 7 duties.

The Corps, however, has erroneously concluded that the issuance of the NWPs will have "no effect" on species protected under the ESA, averring that:

Thus, because no NWP can or does authorize an activity that may affect a listed species or critical habitat absent an activity-specific ESA section 7 consultation or applicable regional programmatic ESA section 7 consultation, and because any activity that may affect a listed species or critical habitat must undergo an activity-specific consultation or be in compliance with a regional programmatic ESA section 7 consultation before the district engineer can verify that the activity is authorized by NWP, the issuance or reissuance of NWPs has "no effect" on listed species or critical habitat. Accordingly, the action being "authorized" by the Corps (*i.e.*, the issuance or re-issuance of the NWPs themselves) has no effect on listed species or critical habitat.⁸⁶

This argument, however, mistakes the trees for the forest and patently violates the ESA and its implementing regulations. The ESA requires the Corps to "insure that *any action* authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat."⁸⁷ "Action" includes the authorization of *programs*,⁸⁸ and the Corps must therefore engage in formal consultation because the NWP program "may affect listed species or critical habitat."⁸⁹ The ESA and its implementing regulations clearly require the Corps to ensure that the NWP program, writ large, does not jeopardize listed species or adversely modify their critical habitat. Indeed, such consultation "allows for a broad- scale examination of a program's potential impacts on a listed species and its designated critical habitat—an examination that is not as readily conducted when the later, action-specific consultation occurs on a subsequent action developed under the program framework."⁹⁰

The fact that project-specific consultations *may* occur for NWP-authorized activities does not mean that the issuance of the NWP program itself does not meet the ESA's low "may affect" threshold requiring programmatic consultation. Indeed, the ESA regulations specifically

2d 1, 3, 9-11 (D.D.C. 2005) (requiring consultation on 2002 issuance of Nationwide Permit 12 to avoid piecemeal destruction of species and habitat).

⁸⁶ 85 Fed. Reg. at 57,359.

- ⁸⁷ 16 U.S.C. § 1536(a)(2).
- ⁸⁸ 50 C.F.R. § 402.02.
- ⁸⁹ 50 CFR 402.14(a).
- ⁹⁰ 80 Fed. Reg. at 26,836.

contemplate that programs that "may affect" listed species must be subject to programmatic consultations even though individual actions taken under such programs may necessitate project-specific consultation. The regulations specify that programmatic consultations must not provide for incidental take, but rather should assess how the program will track impacts – particularly cumulative impacts – to prevent jeopardy.⁹¹ Incidental take is then approved at the project-specific level through consultation on individual actions. If the Corps' position were correct, there would *never* be any programmatic consultations despite the clear requirement in the regulations, since all programmatic consultations also require project-specific review for actions undertaken pursuant to the program. Therefore, it is readily apparent that project-specific consultation in reliance on project-specific review is entirely arbitrary and capricious, particularly here where it is clear from the prior consultations with NMFS that the NWP program not only may affect listed species, but can jeopardize their continued existence absent specific measures implemented at the programmatic level.

Importantly, the Corps' erroneous "no effect" argument was squarely foreclosed by the D.C. District Court in *National Wildlife Federation v. Brownlee*, 402 F. Supp. 2d 1 (D.C. 2005), where the court specifically held that "overall consultation for the NWPs is necessary to avoid piece-meal destruction of [] habitat through failure to make a cumulative analysis of the program as a whole." More recently, this same argument was also rejected by the Montana District Court regarding NWP 12, as set forth above.

The Corps' reliance on regional consultations is also misplaced. Not only is there no guarantee that these will occur for all regions (and not all regions have done such consultation in the past), but regional consultations are still inadequate because they cannot address the cumulative impacts of the program as a whole, as the ESA requires.⁹² Indeed, such regional consultations cannot even properly consider cumulative impacts to the many listed species, such as migratory birds, that move between regions.

It is therefore unequivocal that project-specific consultation does not relieve the Corps of its duty to consult on the issuance of the NWPs at the programmatic level.⁹³ While project-specific consultation is clearly required for any project using a NWP that may affect listed species, the Corps cannot justify a "no effect" determination for the issuance of the NWP program based on that later, site-specific consultation. Relying only on site-specific consultation fails to capture

⁹¹ See 80 Fed. Reg. 26,832.

⁹² 50 C.F.R. § 402.14(c).

⁹³ While formal programmatic consultation is required, it would be improper and unlawful for any incidental take statement to be issued as part of the Services' biological opinion.
Programmatic biological opinions are not intended to provide for incidental take. *See Gifford Pinchot Task Force v.USFWS*, 378 F.3d 1059, 1067–68 (9th Cir. 2004) *am. by* 387 F.3d 968 (9th Cir. 2004); *Forest Serv. Employees for Envtl. Ethics*, 726 F. Supp. 2d at 1224–1225; *W. Watersheds Project v. BLM*, 552 F. Supp. 2d 1113, 1139 (D. Nev. 2008); *Swan View Coal., Inc. v. Turner*, 824 F. Supp. 923, 934–35 (D. Mont. 1992). Incidental take may only be authorized, if at all, via a Section 10 permit or Section 7 project-specific consultation.

the cumulative impacts that the NWP program may have (and is having) on listed species. The only way to ensure that the issuance of the NWPs will not jeopardize listed species is to consult nationally – otherwise the Services are not provided the opportunity to identify which NWPs may be problematic for listed species, and to provide reasonable and prudent measures to minimize harm, such as measures to ensure that the Corps gathers and analyzes sufficient data to prevent jeopardy to listed species.

Indeed, the 2012 determination by NMFS that the NWP program was jeopardizing species, and its requirement that the Corps abide by additional measures at the national level in the 2014 BiOp to prevent such jeopardy, forecloses any argument that programmatic consultation is unnecessary to safeguard imperiled species. NMFS was only able make a no-jeopardy determination in 2014 after the Corps agreed to adopt those additional protective measures at the national level.⁹⁴ This reinforces the critical importance of Section 7 compliance for the 2020 iteration of the NWPs. Since the Corps refused to consult on the 2017 NWP program, there has been no effort to assess the efficacy of the measures set forth in the 2014 BiOp. And the Corps has proposed changes that could dramatically increase impacts to listed species, such as removing the 300-linear foot loss limit for several NWPs (discussed further below). Without consultation on the 2020 iteration of the NWPs, there is no legal or factual basis for finding that proposed program is sufficient to satisfy the Corps' duty to prevent jeopardy under Section 7. This is especially so given that annual NWP usage has increased drastically since 2012. For example, the use of NWP 12 has increased by more than 77 percent since 2012 and the Corps only started using the permit to approve massive oil pipelines relatively recently. Consequently, any prior analysis on an earlier permit is now outdated and cannot substitute for Section 7 consultation on the version of the NWPs that is now proposed to be in effect for the next 5 years—particularly given the ESA's "best available" science mandate for Section 7.95 Consultation on the proposed NWPs is vital to ensure that species are not being jeopardized and that critical habitats are not being destroyed in piecemeal fashion.

NWPs are used to conduct thousands of activities each year in areas where listed species may be impacted. According to the Corps, during the period of March 19, 2012, to September 30, 2016, Corps districts conducted 1,402 formal consultations and 9,302 informal consultations for NWP activities under ESA section 7, and each year NWP activities are covered by an average of more than 4,300 formal, informal, and programmatic ESA section 7 consultations with the FWS and/or NMFS.⁹⁶ This highlights the fact that project-specific consultation is not able to capture the

⁹⁴ As the Corps itself has acknowledged, programmatic consultation provides "tools that districts can use to better address potential impacts to the endangered and threatened species." 72 Fed. Reg. 11,092, 11,096 (March 12, 2007); *see also* Coal. Br. 34 (discussing tools and measures—such as data-collection or time-of-year restrictions—for mitigating impacts to listed species at the programmatic level).

⁹⁵ 16 U.S.C. § 1536(a)(2).

⁹⁶ See also 81 Fed. Reg. at 35,194 ("During the period of March 19, 2012, to December 14, 2015, Corps districts conducted 1,188 formal consultations and 7,327 informal consultations for NWP activities under ESA section 7. During that time period, the Corps also used regional programmatic consultations for 7,679 NWP verifications to comply with ESA section 7.

cumulative impacts to listed species from the thousands of NWP-authorized activities that affect listed species each year.⁹⁷

In sum, programmatic review of the NWP program provides the only way to avoid piecemeal destruction of species and habitat, and the Corps cannot circumvent its ESA Section 7 obligations by relying on project-level review and regional conditions to justify a "no effect" determination for the NWP program.

2. NWP General Condition 18 Unlawfully Delegates the Corps' ESA Duties to Permittees

The Corps' reliance on NWP General Condition 18, which requires permittees to submit a PCN to the Corps if NWP activities will take place in habitat for listed species, is insufficient to ensure that project-specific consultations will occur where listed species may be affected by NWP-authorized activities, because it unlawfully delegates the initial effect determination to the permittee.

NWP General Condition 18 requires project proponents to submit PCNs if listed species "might be" affected—which the Corps claims to be more inclusive than a "may affect" trigger, but seems to make little difference.⁹⁸ This, however, unlawfully delegates the initial effects determination to the permittee, which can easily result in NWP activities taking place that "may affect" listed species absent the required ESA consultation. Indeed, the Montana District Court specifically held that the Corps failed to ensure that project-specific consultations will occur because it improperly delegated the legal duty to make an "initial effect determination" to non-

Therefore, each year NWP activities are covered by an average of more than 4,300 formal, informal, and programmatic ESA section 7 consultations with the FWS and/or NMFS.").

⁹⁷ According to NMFS, "within any given year, 29 to 34 thousand actions could be authorized resulting in about 34 to 43 thousand impacts requiring 37 to 62 hundred mitigation efforts." 2014 NMFS BiOp at 286.

⁹⁸ Any claim that the Corps can avoid programmatic nationwide consultations because of its "might affect" threshold in its regulations at 33 C.F.R. § 330.4(f)(2) is entirely without merit. The preamble to the Corps' regulations at the time they were first promulgated with that language provide absolutely no discussion of the use of the word "might" having a meaning different than "may," and strongly suggest that the use of "might" in 1991 was nothing more than a fluke or accidental choice in verb tense. *See, Proposal To Amend Nationwide Permit Program Regulations and Issue, Reissue, and Modify Nationwide Permits*, 56 Fed. Reg. 14,598 (Apr. 10, 1991). The Corps' claim in the 2020 proposed rule is nothing more than an arbitrary, *post hoc* justification to avoid the legal requirements of the Act. Commenters note that this provision may also lead to confusion, since "might affect" is not defined within the ESA or its implementing regulations. Therefore, the Corps should consider whether using this new term is going to cause unnecessary confusion. federal permittees, whereas ESA Section 7(a)(2) requires federal agencies to make that determination.⁹⁹ The Corps inexplicably ignores that decision.

The Corps' reliance on permittees means that if those parties fail to notify the Corps—whether because they do not have the required knowledge, experience, or expertise and failed to do their due diligence, or they purposefully avoid the reporting requirement to circumvent the costs and delays associated with the ESA consultation process—the Corps would then have no knowledge that impacts to listed species were occurring and thus no basis for consulting. And even though such activity would be unlawful, if the Corps remains unaware because no notice was provided, then no consultation would occur, in violation of the ESA. And even if the Corps somehow learns of this illicit activity after the fact, it may be too late to prevent harm—or even jeopardy—to listed species, and damages are likely to be insufficient to remedy such impacts.¹⁰⁰ Therefore, the scheme for ESA compliance that the Corps has created through General Condition 18 is insufficient, and an unlawful abdication of the clear *duty* that all federal agencies have to *prioritize* the protection of listed species through the *mandatory* Section 7 consultation process for all agency actions that may affect listed species.¹⁰¹

In fact, in the 2014 BiOp NMFS was highly skeptical of the effectiveness of the Corps' PCN requirement, stating that:

The limited review schedules for NWPs almost certainly preclude project managers from critically reviewing PCNs and verifying whether the basic information on project location, timing, and impacts contained in the notifications is correct or whether the conclusions about [listed] species and ... critical habitat contained in the notifications were well-reasoned and had been based on the best scientific and commercial data available, as required by section 7(a)(2) of the ESA.¹⁰²

¹⁰⁰ Even when a PCN is submitted, that does not ensure that the Corps actually undertakes project-specific consultation where necessary, since NMFS found in its most recent review of the NWP program that "evidence suggests that the Corps has historically not reviewed significant percentages of PCNs to insure they are complete and the information is correct." 2014 NMFS BiOp at 269. NMFS further states that "[t]he Corps historically has not routinely conducted field inspections of PCNs to verify that the information contained in those notifications captures the activity and impacts that actually occurred." *Id*.

¹⁰¹ See Tenn. Valley Auth. v. Hill, 437 U.S. 153, 173 (1978) ("One would be hard pressed to find a statutory provision whose terms were any plainer than those in § 7 of the [ESA].").

¹⁰² 2014 BiOp at 198.

⁹⁹ Northern Plains Res. Council v. United States Army Corps of Eng'rs, 2020 U.S. Dist. LEXIS 66745, *22 (Dist. Mont., April 15, 2020) ("The Corps must determine "at the earliest possible time" whether its actions "may affect listed species or critical habitat.") (citing 50 C.F.R. § 402.14(a)); 16 U.S.C. § 1536(a)(2); cf. Selkirk Conservation All. v. Forsgren, 336 F.3d 944, 955 (9th Cir. 2003) ("Federal agencies cannot delegate the protection of the environment to public-private accords."); cf. Gerber v. Norton, 294 F.3d 173, 184-6 (D.C. Cir. 2002) (FWS may not delegate species protection obligations to a private permit applicant).

And since several of the NWPs do not automatically require the filing of a PCN and may proceed without any notice to the Corps whatsoever, there is the very real potential for impacts to listed species—including cumulative impacts—to be overlooked by the Corps.¹⁰³ General Condition 18 is therefore patently insufficient to meet the Corps' ESA duties. As discussed further below, Commenters urge the Corps to require PCNs for all NWPs, and to create a protocol to ensure that the Corps is in fact consulting with the Services whenever listed species may be affected.

3. The NWPs may not be reissued until the Corps complies with the ESA

The Corps may not reissue or authorize the NWPs until it fulfills its obligation to consult under ESA Section 7. Section 7(d) of the ESA provides:

After initiation of consultation required under subsection (a)(2) of this section, the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection(a)(2) of this section.¹⁰⁴

Congress enacted Section 7(d) to prevent Federal agencies from 'steamrolling' activity in order to secure completion of projects regardless of their impact on endangered species. Section 7(d) clarifies the requirements of Section 7(a)(2) in order to ensure that the status quo will be maintained during the consultation process.

Since discharge and fill activities under the NWP program "may affect" and are "likely to adversely affect" listed species, authorization of the NWPs may not be finalized absent the completion of formal programmatic ESA Section 7 consultation. Therefore, until the Corps completes formal consultation on the NWP program, no NWPs may be issued. Any argument that this would cause an undue burden on the agency or permittees is unreasonable, given that the Corps was put on notice in 2005 when the court in *National Wildlife Federation v. Brownlee*, 402 F. Supp. 2d 1 (D.C. 2005), specifically held that "overall consultation for the NWPs is necessary to avoid piece-meal destruction of [] habitat through failure to make a cumulative analysis of the program as a whole," which was confirmed more recently in *Northern Plains Resource Council et al. v. U.S. Army Corps of Engineers*, No. 4:19-cv-00044 (D. Mont.), appeal pending, No. 20-35412 (9th Cir.), where the court found that the Corps was "well-aware" of the need to consult on the programmatic level, and yet erroneously relied on project-specific consultations to meet its ESA duties, as it continues to do here, in direct violation of the ESA.

¹⁰³ *Id.* at 262 ("The National Research Council's review of wetland compensatory mitigation (NRC 2001) stated that Nationwide Permits that do not require pre-construction notification 'make it difficult for the Corps to determine overall program impacts."").

¹⁰⁴ 16 U.S.C. § 1536(d); 50 C.F.R. § 402.09.

B. The Proposed NWPs Will Have More Than Minimal Cumulative Adverse Effects on the Environment in Violation of the CWA

Even though CWA Section 404 states that general permits may only be issued for activities that "will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment," the Corps has failed to keep adequate records to ensure that this threshold is being met for the NWPs. Absent such records, or an adequate analysis of the cumulative and total impacts of the NWPs, the Corps cannot determine that their issuance will have only minimal cumulative adverse effect on the environment. Nor could they as the NWP program permits activities that have significant (i.e. much more than minimal) direct and cumulative environmental impacts, from activities such as such as oil and gas pipelines permitted pursuant to NWP 12, surface mining activities under NWP 21, and aquaculture under NWP 48 among many others. These and other such NWPs should not be allowed to continue, but rather such projects must be subject to the individual 404 permit requirements, as discussed further below.

The Corps has simply failed to ensure that the NWPs do not cause more than minimal direct and cumulative adverse impacts, and in fact the agency has gone out of its way to allow activities that clearly have significant impacts to still proceed under a NWP. For example, under NWP 12 the Corps treats numerous water crossings along a proposed linear utility project—which often number in the hundreds or even thousands, with several in close proximity—as many "single and complete projects" that each qualify separately under the NWP. There is no limit to the total number of times a single pipeline can use NWP 12, nor is there a maximum number of acres a pipeline can impact while still qualifying for NWP 12. The result is that NWP 12 can permit projects with an unlimited level of impacts, rather than limiting its applicability to activities with only "minimal" impacts, in clear violation of the CWA.

Furthermore, the Corps has failed to show that it even has a process in place to keep track of the actual number of activities authorized and the amount of acreage impacted by NWP activities – therefore, the full extent of cumulative harm from NWPs has never been fully considered. An FWS regional office has in fact stated that "this lack of data limits our ability to conduct a detailed analysis of the cumulative impacts associated with each NWP, much less the program as a whole."¹⁰⁵

The NWPs authorize activities with a wide range of impacts to the Nation's waters and wetlands. Indeed, a significant percentage of the construction activities that take place each year in wetlands are authorized by NWPs, and it is well-documented that wetland habitat has significantly declined and become increasingly impaired, calling into question whether impacts associated with NWPs truly are minimal.

NMFS in fact previously found that NWPs represent up to 80% of all USACE authorized activities.¹⁰⁶ Since 1982, NWPs have authorized an average of 36,613 discharges of dredged or

¹⁰⁵ FWS Regional Offices, *Incoming Regional comments on 2/16/11 NWP proposal – ESA issues* (Mar. 25, 2011) (attached hereto).

¹⁰⁶ 2012 NMFS BiOp at 155.

fill material per year, and the 2020 proposed NWPs states that the Corps expects 32,386 non-PCN activities per year and 32,523 NWP activities per year that require a PCN, which totals 64,909 NWP activities per year, or 324,545 over the 5-year period. In 2012, NMFS estimated that NWPs had authorized at least 910,740 discharges of dredged or fill material. That, however, was a minimum estimate, and the actual number is likely substantially higher because it did not account for the number of authorizations that did not require permittees to notify the Corps with a pre-construction notice (PCN), and does not include NWP discharges since 2012.¹⁰⁷

The Corps attempts to show that it meets the requirements of Section 404(e) through preparation of "decision documents" and/or "supplemental decision documents" (collectively "Decision Documents") for the NWPs. Accordingly, the data and other information in the Decision Documents *should* provide support for the Corps' conclusion that the NWPs are "similar in nature" and "result in minimal individual and cumulative adverse environmental effects." However, the information provided by the Corps is inadequate, and it remains unclear how the Corps could possibly claim that the NWP program has not resulted in significant environmental harm.

Indeed, the NWP Decision Documents fail to provide specific data to support the Corps' contention that the effects of the authorized activities are actually minimal, and fail to "set forth in writing an *evaluation* of the potential individual and cumulative impacts of the category of activities to be regulated," in violation of the CWA.¹⁰⁸ The Corps' has also failed to document "potential short-term or long-term effects" of the NWPs in violation of the CWA.¹⁰⁹ Further, the Corps has failed to consider the cumulative effects of the NWPs by properly estimating "the number of individual discharge activities likely to be regulated" by the NWP program.¹¹⁰

In fact, the on-the-ground reality is that this program does cause significant degradation, through increased sedimentation and contamination of waterways and habitats relied on by species, including federally protected species. Since 1982, over 150,000 acres of wetlands have been impacted by NWP activities, and as NMFS has noted when reviewing the NWP program, several investigations have concluded that "the Corps appears to have evaluated CWA section 404 permits on an individual basis without adequate consideration of cumulative impacts at watershed or regional spatial scales, and that there have been 'large losses in available habitat

¹⁰⁸ Clean Water Act section 404(e) and 404(b)(1)

¹⁰⁹ *Id*.

¹¹⁰ *Id*.

¹⁰⁷ *Id.* The Corps estimated that NWPs would authorize at least 165,544 discharges of dredged or fill material over the current five-year (2012-2017) duration of the NWPs. *See also* 2014 NMFS BiOp at 255 ("Because many Nationwide Permits have historically authorized discharges of dredged or fill material into waters of the United States and other activities without requiring permittees to provide any information to the Corps, we assume that the Nationwide Permits have authorized a substantial, but unknown number of activities. As a result, our estimates of the number of activities authorized by the Nationwide Permits and the number of acres impacted by those activities may underestimate the actual number of activities that have occurred in the past.").

functionality due to a concentration of many projects' which may seriously affect species inhabiting the area."¹¹¹

The Congressional Research Service, in a 2012 report to Congress, detailed many of the concerns that environmentalists, as well as EPA and the Services, have raised regarding the significant impacts of the NWP program. The report (attached hereto) explains that concerns exist because the Corps "lacks an effective tracking and monitoring system for evaluating impacts."¹¹² Moreover, the report found that the Corps' assumptions regarding the cumulative impacts of the NWP program are flawed, due to the lack of specific information on the number of NWPs used and the amount of wetland acreage affected:

Even more troubling is the notion that the Corps uses these flawed permit numbers to arrive at the acres of wetlands and waters impacted, and for the presumed use and impact of the proposed NWPs. Again, we can only assume that the Corps has averaged the impacts associated with some subset of known nationwide permit applications. This type of statistical mean does not provide us with the actual impact to waters of the United States, nor can it be used as a basis for predicting the future cumulative impacts of the proposed NWPs.¹¹³

Concerns raised by scientists, as well as FWS, NMFS and EPA agency staff, regarding the cumulative impacts of the NWP program show that the Corps has failed to ensure that the NWP program complies with CWA Section 404(e):

- FWS staff have stated that the term "minimal" is problematic, since the Corps "does not acknowledge the additive effects of these actions at the program level," and that the additive effects of NWPs at program level are severely degrading baseline and listed species' status over time.¹¹⁴ FWS staff have further stated concerns over the Corps' data collection on the NWP program, maintaining that the Corps' "databases are mostly empty and are nearly useless for quantifying additive impacts."¹¹⁵
- The EPA has expressed concerns regarding the "the extent to which many of the proposed NWPs allow for waivers of environmental protections." According to EPA, "such discretion without any limits could lead to impacts that may not be minimal individually, and/or cumulatively."¹¹⁶

¹¹¹ 2014 NMFS BiOp at 262.

¹¹² Congressional Research Service, The Army Corps of Engineers' Nationwide Permits: Issues and Regulatory Development at 1 (Jan. 30, 2012).

¹¹³ *Id.* at 13.

¹¹⁴ Email from Carolyn R. Scafidi, ESA Section 7 Policy Coordinator Washington Fish and Wildlife Office (Dec. 9, 2010) (attached hereto).

¹¹⁵ Email from David Wright (Feb. 8, 2000) (attached hereto).

¹¹⁶ Letter from Jeffrey Lapp, EPA to William Walker, Army Corps (Apr. 4, 2011) (attached hereto).

• NMFS staff have raised concerns about the Corps' cumulative impacts analysis, stating that "There is no process for a systematic evaluation of the cumulative effects - just the Corps assertion that their District Engineers 'know' when cumulative effects are a problem and take appropriate action."¹¹⁷

Not only must the Corps ensure that the NWP program will have only minimal direct and cumulative adverse effect on the environment, but the CWA 404(b)(1) Guidelines at Section 230.10(c) provide that "no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States." As set forth herein, the Corps has permitted (and will continue to permit) not only significant direct and cumulative adverse impacts to the Nation's waters, but indeed undue degradation of such waters by permitting destructive NWP activities and failing to track the harm to ensure that waterways are protected. The NWP program is therefore in clear violation of CWA Section 404.

C. The Corps Must Prepare an EIS

The Corps is proposing to reauthorize a national program for streamlined compliance with the CWA for dredge and fill activities in waterways and wetlands—activities that have proven to result in significant harm to the environment, including to endangered species—without producing an EIS to fully consider the environmental impacts of the program. As set forth above, even though the NWP program is intended to have only minimal impacts on the environment, the Corps has failed to ensure that this is the case, and the evidence suggests that the program is causing significant environmental harm. Therefore, the Corps' failure to produce an EIS is arbitrary, capricious, and in clear violation of NEPA.

NWP-authorized activities involve significant unique or unknown risks and there is a history of degradation and harm from NWP-authorized activities, which the Corps has failed to adequately track. Under these circumstances, an EA cannot suffice. Indeed, an EA aims simply to identify (and assess the "significance" of) potential impacts on the environment to see whether an EIS is needed, but it is not intended to provide the full analysis – the "hard look" – that NEPA requires for major federal actions with significant environmental effects.¹¹⁸ Where, as here, there clearly are significant effects, officials must make their decision "in light of an EIS."¹¹⁹

Courts have specifically held that under NEPA and its implementing regulations, courts "cannot accept [an EA] as a *substitute* for an EIS -- despite the time, effort, and analysis that went into their production -- because an EA and an EIS serve very different purposes."¹²⁰ "To treat an EA as if it were an EIS would confuse these different roles, to the point where neither the agency nor those outside it could be certain that the government fully recognized and took proper

¹¹⁷ Email from Susan-Marie Stedman, Office of Habitat Conservation NOAA Fisheries and National Fish Habitat Board staff (Dec. 8, 2010) (attached hereto).

¹¹⁸ *Id*.

¹¹⁹ *Id.* (noting that "the purpose of an EA is simply to help the agencies decide if an EIS is needed").

¹²⁰ Sierra Club v. Marsh, 769 F.2d 868, 875 (1st Cir. 1985).

account of environmental effects in making a decision with a likely significant impact on the environment."¹²¹

The difference between an EA and an EIS is important here, because as discussed above the Corps does not track the actual impacts of the NWP program. Moreover, since the Corps has repeatedly relied on EAs to reauthorize the NWP program, it has never fully considered the impacts of the program on the environment in any meaningful way, as required by the CWA and NEPA. Completing an EIS is therefore vital to ensuring that the Corps complies with bedrock environmental legal obligations that protect our Nation's waters and the people and wildlife that depend on them.

Since 1979 the CEQ NEPA regulations have required that the "significance" of an agency action be evaluated through a consideration of the context and intensity of the proposed action. Despite recent regulatory changes that have attempted to withdraw the CEQ regulations regarding "significance" (which are now being challenged in court), the impacts of a project on the environment must still be deemed relevant to whether the project is "significant" for purposes of NEPA. Where, as here, the impacts to sensitive habitats such as streams and wetlands, which are relied on by listed species, are at the very heart of the agency action, a full EIS is required.

Indeed, the NEPA regulations have always required agencies to consider ten "significance factors" in determining whether a federal action may have a significant impact, thus requiring an EIS.¹²² Among other factors, agencies consider the beneficial and adverse impacts of the action, the effect on public health and safety, unique characteristics of the geographic area impacted (such as park lands, <u>wetlands</u>, or ecologically critical areas), the degree to which possible effects are highly controversial, uncertain, or involve unique or unknown risks, cumulatively significant effects, whether the proposed action will violate any laws or standards of environmental protection, and whether it may adversely affect an endangered or threatened species.¹²³ If the agency's action may be environmentally significant according to any of the criteria, the agency must prepare an EIS.

The issuance of the NWPs not only has the potential for significant adverse environmental impacts, but those impacts occur in rivers, streams and wetlands, which are essential habitat areas with unique characteristics that are easy to destroy, and very difficult to replace. NMFS even found that several investigations have concluded that "the Corps appears to have evaluated CWA section 404 permits on an individual basis without adequate consideration of cumulative impacts at watershed or regional spatial scales, and that there have been 'large losses in available habitat functionality due to a concentration of many projects' which may seriously affect species inhabiting the area," suggesting that there remain unknown and uncertain risks.¹²⁴ Furthermore, issuance of the NWPs would certainly have cumulative impacts, which even the Corps has admitted—and according to NMFS those impacts may adversely affect listed species, as set forth

¹²¹ Id.; See also Massachusetts v. Watt, 716 F.2d 946, 951 (1st Cir. 1983).

¹²² 40 C.F.R. § 1508.27.

¹²³ *Id.*

¹²⁴ 2014 NMFS BiOp at 262.

above. It remains entirely unclear why the Corps believes that a "national-scale cumulative impact assessment in accordance with the National Environmental Policy Act definition of 'cumulative impact' at 40 CFR part 1508.7" is warranted, yet apparently believes that it does not need to conduct a full EIS, even though an EIS is required when an action would have cumulatively significant effects pursuant to 40 C.F.R. § 1508.27. That is simply an illogical, and unlawful, position.

The Corps makes a half-hearted attempt to appear in compliance with NEPA, claiming that "Each national NWP decision document includes a national-scale NEPA cumulative effects analysis;"¹²⁵ However, the Corps does not actually provide an analysis of cumulative impacts in the Decision Document EAs, nor could it, since that is not the purpose of an EA. And a close look at the discussion of cumulative impacts provided in the Decision Documents shows that it is vapid boilerplate that is repeated nearly verbatim for each NWP, and which provides no actual analysis of cumulative impacts but merely provides general information about the status of jurisdictional waters (i.e. how many acres and miles of wetlands and stream are in the U.S.); a superficial discussion of the quality of those waters; a general discussion of aquatic resources and functions; a broad (and frankly useless) description of activities that affect aquatic ecosystems; and a discussion of the effects of the NWP that is not NWP-specific and provides no insight into the actual environmental impacts that are expected over the 5-year period. Importantly, there is no attempt to use any information on the past use of each NWP to determine the potential cumulative impacts of this iteration of the NWPs.

There is simply no material analysis of the actual cumulative impacts, but rather a series of generalized statements that provide nothing to suggest that such impacts will be "minimal" as the CWA requires, other than unsupported statement along with repetitive arguments regarding the "considerable challenges" in characterizing the potential environmental consequences of the issuance of the NWPs at a national scale. This is not enough to satisfy NEPA. *See Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 864-66 (9th Cir. 2005) (holding the agency failed to take a "hard look" where its assessment included only conclusory assertions and did not discuss contrary evidence); *Alaska Wilderness League v. Kempthorne*, 548 F.3d 815, 831 (9th Cir. 2008) ("This is the type of 'conclusory assertion' that is disfavored by this court because the agency has not provided any scientific data that justifies this position."); *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1213 (9th Cir. 1998) ("[G]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.").

Notably, the Decision Documents aver that "the NWPs provide mechanisms for more robust analyses at the site-specific scale;" however, this is a hollow statement, since the Corps does not undertake a NEPA analysis at the project-specific level, and such review cannot consider the cumulative impacts of the NWPs since such review is limited to the project itself.

Furthermore, it does not appear that the Corps' attempt at a "cumulative impact assessment" even considers the full cumulative impacts of the NWPs. Pursuant to 40 C.F.R. § 1508.7, cumulative effects include "the impact on the environment which results from the incremental

¹²⁵ 85 Fed. Reg. at 57,355.

impact of the action when added to other <u>past, present, and reasonably foreseeable</u> future actions regardless of what agency (Federal or non- Federal) or person undertakes such other actions." The Corps, however, has stated that its analysis of the "cumulative adverse effect on the environment" refers to the "collective direct and indirect adverse environmental effects caused by the all the activities authorized by a particular NWP <u>during the time period that NWP is in effect (a period of no more than 5 years) in a specific geographic region."¹²⁶ It therefore appears that the Corps does not intend to consider past and reasonably foreseeable future actions (i.e. impacts outside of the 5-year NWP period) as required by NEPA.¹²⁷ This violates not only NEPA by unlawfully segmenting the impacts of the NWP program into five-year increments,¹²⁸ it sets a dangerous precedent that allows the Corps to disregard the actual, long-term cumulative impacts that the NWPs have on the environment.</u>

Regardless, the significant environmental impacts from the issuance of the NWPs must be fully analyzed in an EIS, rather than some agency-derived alternative review process that the Corps provides in the Decision Documents.¹²⁹ The Corps' promise to conduct a "cumulative impact assessment" in accordance with the NEPA definition of "cumulative impact" is perhaps well-intentioned, but entirely misplaced. As set forth above, NEPA requires a specific process, and thereby allows for public participation and assurances that the environmental impacts of agency actions are fully considered. That the Corps' review in an EA would be "in accordance" with the definition of "cumulative impact" is insufficient to meet the goals and requirements of NEPA.

The Corps' failure to comply with NEPA when it issues the NWPs is particularly problematic because the Corps does not analyze cumulative impacts of NWP-authorized activities at the project-specific level. In fact, the Corps does not prepare any NEPA analysis at all at the project-specific level, as it purports to fully discharge its NEPA obligations upon issuance of the NWPs. The Corps therefore cannot defer any portions of its cumulative effects analysis to a later stage of review. The Corps states that since the "required NEPA cumulative effects and 404(b)(1) Guidelines cumulative effects analyses are conducted by Corps Headquarters in its decision documents for the issuance of the NWPs, district engineers do not need to do comprehensive cumulative effects analyses for NWP verifications." 85 Fed. Reg. 57,301. But

¹²⁸ See One Thousand Friends of Iowa v. Mineta, 364 F.3d 890, 894 (8th Cir. 2004) (finding that segmentation of NEPA analysis unlawful); *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1075 (9th Cir. 2002) ("A cumulative impact analysis 'must be more than perfunctory; it must provide 'a useful analysis of the cumulative impacts of past, present, and future projects."").

¹²⁹ *Defenders of Wildlife v. Ballard*, 73 F. Supp. 2d 1094, 1106-15 (D. Ariz. 1999) (enjoining the Corps from authorizing activity under NWPs 13, 14, and 26 until they conducted a regionally based, programmatic impact analysis, holding that "as a matter of law, authorizations under the challenged NWPs violate NEPA mandates until Defendants conduct a regionally based, programmatic impact analysis").

¹²⁶ 85 Fed. Reg. 57,300 (emphasis added).

¹²⁷ The CEQ regulations require that agencies "[s]tudy, develop, and describe alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources," even where an EIS is not required. 40 C.F.R. § 1507.2(d).

since the Corps never provides an adequate analysis of cumulative impacts in the Decision Documents, the Corps never truly evaluates the adverse environmental impacts of the NWPs, in violation of both NEPA and the CWA.

1. The Corps Must Consider the Impacts of Climate Change

The Corps must also take into consideration the impacts of climate change when analyzing the cumulative impacts of the NWPs in an EIS. Climate change is exacerbating, and will continue to exacerbate, the threats to waters, wetlands and the species that rely on them.¹³⁰ Climate change cannot simply be addressed on a project-by-project basis when making land management decisions. Rather, the cumulative impacts of stream and wetland loss from NWP activities must be considered in the context of such loss from the current global climate catastrophe.

Climate change has the potential to completely alter the structure and function of the Nation's waters, particularly estuaries and coastal wetlands. Sea level rise threatens to inundate many coastal wetlands, with little room for species to move inland because of coastal development. Already sharply reduced in acreage, coastal freshwater wetlands are especially vulnerable to rising sea levels.

The geographic ranges of many aquatic and wetland species are determined by temperature. Average global surface temperatures are projected to increase by 1.5 to 5.8 degrees Celsius by 2100, but increases may be higher in the United States. Projected increases in mean temperature in the United States are expected to greatly disrupt present patterns of plant and animal distributions in freshwater ecosystems and coastal wetlands. For example, cold-water fish like trout and salmon are projected to disappear from large portions of their current geographic range in the continental United States, when warming causes water temperature to exceed their thermal tolerance limits. Species that are isolated in habitats near thermal tolerance limits (like fish in Great Plains streams) or that occupy rare and vulnerable habitats (like alpine wetlands) are likely to become extinct in the United States in the near future.¹³¹

The productivity of inland freshwater and coastal wetland ecosystems also will be significantly altered by increases in water temperatures. Warmer waters are naturally more productive, but for species that rely on these areas this may be undesirable or even harmful. For example, the blooms of "nuisance" algae that occur in many lakes during warm, nutrient-rich periods can be

¹³⁰ See *i.e.* NMFS 2014 BiOp at Section 3.3 (noting, for example, that "When combined with changes in coastal habitats and ocean currents, the future climates that are forecast place sea turtles at substantially greater risk of extinction than they already face," and stating that "Climate change is projected to have substantial direct and indirect effects on individuals, populations, species, and the structure and function of marine, coastal, and terrestrial ecosystems in the foreseeable future").

¹³¹ Poff, N.L. et. al., Aquatic Ecosystems and Global Climate Change: Potential Impacts on Inland Freshwater and Coastal Wetland Ecosystems in the United States, Pew Center on Global Climate Change (Jan. 2002), *available at* http://www.c2es.org/publications/aquatic-ecosystemsand-climate-change

expected to increase in frequency in the future, which can result in drastic reductions in dissolved oxygen in the water.

In addition to its independent effects, temperature changes will act synergistically with changes in the seasonal timing of runoff to freshwater and coastal systems. In broad terms, water quality will likely decline greatly, owing to expected summertime reductions in runoff and elevated temperatures. These effects will carry over to aquatic species because the life cycles of many are tied closely to the availability and seasonal timing of water from precipitation and runoff. In addition, the loss of winter snowpack will greatly reduce a major source of groundwater recharge and summer runoff, resulting in a potentially significant lowering of water levels in streams, rivers, lakes, and wetlands during the growing season.

Increases in water temperatures as a result of climate change will alter fundamental ecological processes and the geographic distribution of aquatic species. Climate change is likely to stress sensitive freshwater and coastal wetlands, which are already adversely affected by a variety of other human impacts, such as altered flow regimes and deterioration of water quality from land use changes (including from activities authorized by NWPs). Wetlands are a critical habitat for many species that are poorly adapted for other environmental conditions and serve as important components of coastal and marine fisheries.

These aquatic ecosystems have a limited ability to adapt to climate change. Reducing the likelihood of significant impacts to these systems will be critically dependent on human activities that reduce other sources of ecosystem stress and enhance adaptive capacity. These include maintaining and protecting aquatic habitats, reducing nutrient loading, restoring damaged ecosystems, minimizing groundwater withdrawal, and strategically placing any new reservoirs to minimize adverse effects. The NWPs, however, allow for activities that destroy sensitive waterways and wetlands, leading to increased sedimentation and loss of thousands of acres of wetland habitat.

The Corps has completely ignored climate change in its Decision Documents for the NWPs, asserting that it "does not have the authority to control the burning of fossil fuels or the adverse environmental effects that are caused by burning those fossil fuels to produce energy." This fails to provide the "hard look" that NEPA requires. The Corps is obligated to consider environmental impacts caused by greenhouse gases under the CWA public interest factors set forth at 33 C.F.R. § 320.4(a)(1). *See Sierra Club*, 867 F.3d 1357, 1371-73 (D.C. Cir. 2017) (interpreting *Public Citizen*).

The Corps must: (1) comprehensively analyze the total stream and wetland losses which result from past, present, and potential future activities, (2) consider the cumulative impacts of the NWP program in the context of global climate change on these habitats, and (3) formulate measures that avoid or limit the effects of the NWP program to ensure that there will be only minimal cumulative adverse effects on the environment in light of climate change impacts, as required under the CWA. By continuing to allow NWP activities in the absence of any overall plan addressing climate change, the Corps is effectively burying its head in the sand. Limiting this analysis to only the 5-year period that each NWP iteration is in effect unlawfully segments the analysis, in violation of NEPA.

In sum, proceeding with issuing the NWPs in the absence of a comprehensive plan that addresses climate change risks irreversible damage. The Corps must analyze these issues in an EIS (as well as through programmatic ESA consultation) to weigh the full costs of cumulative stream and wetland loss and consider necessary limits on NWP activities.

D. PCNs Should Always be Required for NWP Activities

According to the Corps, thousands of NWP activities occur each year that do not require a PCN (estimated to be 32,386 per year for the 2020 NWPs).¹³² Because no PCN is required for these NWP activities, the Corps does not track them or otherwise ensure that the cumulative impacts of these activities (combined with tens of thousands that do require a PCN) do not result in more than minimal environmental harm. Furthermore, because it is common for NWP activities to proceed without any notice to the Corps, there is the very real potential for such activities to take place in habitat for listed species without the Corps undertaking the required ESA consultation if a PCN is not filed pursuant to General Condition 18, either inadvertently or purposefully, as discussed above.

To resolve these concerns, the Corps should require a PCN for all NWP activities. Requiring a PCN should not be overly burdensome, since PCNs are relatively simple filings that merely notify the Corps of planned NWP activities and their exact location. However, this would provide the Corps with basic, essential information from which it could make its own determination regarding potential impacts to listed species, as well as a database that could be used to track the actual NWP projects that take place each year in order to assess the cumulative effects of the program on the environment.

As discussed above, the Montana District Court has already held that the Corps violated the ESA by unlawfully delegating the initial effects determination to permittees, thereby failing to ensure that it undertakes project-specific ESA Section 7 consultation for all NWP projects that "may affect" listed species. Permittees have a perverse incentive to avoid filing a PCN to sidestep the ESA review process, and/or may not have the requisite experience or expertise to even know when a PCN is required pursuant to General Condition 18. This would not be an issue if the Corps were to require a PCN for all NWP activities.

Indeed, the language of General Condition 18 is confusing and does not ensure that permittees will know when a PCN is required. Previously—for the 2017 NWPs—the Corps admitted that "the term 'in the vicinity' cannot be explicitly defined for the purposes of general condition 18, because the 'vicinity' is dependent on a variety of factors, such as species distribution, ecology, life history, mobility, and migratory patterns (if applicable), as well as habitat characteristics and species sensitivity to various environmental components and potential stressors."¹³³ The proposed 2020 NWPs provide no further explanation of the term. The fact that the Corps itself is not clear on what "in the vicinity" may mean suggests that permittees may likewise be confused.

¹³² 85 Fed. Reg. at 57,365. Table shows that the Corps expects 32,386 non-PCN activities per year and 32,523 NWP activities per year that require a PCN, which totals 64,909 NWP activities per year, or 324,545 over the 5-year period.

¹³³ *Id.* at 35,208.

It is therefore likely that PCNs may not be submitted even if listed species would be adversely affected by an NWP activity. Again, Commenters suggest that this could be easily rectified if PCNs are always required, even if they merely provide the location of the intended NWP activities so that the Corps can quickly evaluate the potential for ESA impacts.

Furthermore, the focus of the PCN trigger must be not only on the immediate area (i.e. the "vicinity"), but on the entire area impacted by NWP activities. This is especially important for impacts to sensitive river/stream systems and the species that rely on them, such as freshwater mussel, many of which are critically imperiled. Studies and analyses indicate that threatened and endangered species that rely on waterways impacted by NWP-activities, such as surface coal mining under NWP 21, are most susceptible when they are within ten river miles of such projects.¹³⁴ Since the sediments and pollutants that harm these species are most prevalent within

¹³⁴ See attachments: Anderson, R. M., Layzer, J. B., & Gordon, M. E. (1991). Recent catastrophic decline of mussels (Bivalvia, Unionidae) in the Little South Fork Cumberland River, Kentucky. Brimleyana, (17), 1-8.; Layzer, J. B., & Anderson, R. M. (1992). Impacts of the coal industry on rare and endangered aquatic organisms of the upper Cumberland River Basin. Kentucky Department of Fish and Wildlife Resources; Warren Jr, M. L., & Haag, W. R. (2005). Spatio-temporal patterns of the decline of freshwater mussels in the Little South Fork Cumberland River, USA. Biodiversity & Conservation, 14(6), 1383-1400; Houp, R. E. (1993). Observations of long-term effects of sedimentation on freshwater mussels (Mollusca: Unionidae) in the North Fork of Red River, Kentucky. Transactions of the Kentucky Academy of Science, 54(3-4), 93-97; U.S. Environmental Protection Agency. (2002). Clinch and Powell Valley Watershed Ecological Risk Assessment. EPA/600/R-01/050; Newton, T. J., & Bartsch, M. R. (2007). Lethal and sublethal effects of ammonia to juvenile Lampsilis mussels (unionidae) in sediment and water-only exposures. Environmental Toxicology and Chemistry, 26(10), 2057-2065; Vannote, R. L., & Minshall, G. W. (1982). Fluvial processes and local lithology controlling abundance, structure, and composition of mussel beds. Proceedings of the National Academy of Sciences, 79(13), 4103-4107; Pond, G. J., Passmore, M. E., Borsuk, F. A., Reynolds, L., & Rose, C. J. (2008). Downstream effects of mountaintop coal mining: comparing biological conditions using family-and genus-level macroinvertebrate bioassessment tools. Journal of the North American Benthological Society, 27(3), 717-737; Jenkinson, J. J. (2005). Specific gravity and freshwater mussels. Ellipsaria, 7, 12-13; McCann, M.T. & Neves, R.J. (1992). Toxicity of coal-related contaminants to early life stages of freshwater mussels in the Powell River, Virginia. Virginia Cooperative Fish and Wildlife Research Unit, Dept. of Fisheries and Wildlife Sciences. Research Work Order No. 23 for U.S. Fish and Wildlife Service, Asheville Field Office. August 1992; Kitchel, H. E., Widlak, J. C., & Neves, R. J. (1981). The impact of coal-mining waste on endangered mussel populations in the Powell River, Lee County, Virginia. Report to the Virginia State Water Control Board, Richmond; Ahlstedt, S. A., & Tuberville, J. D. (1997). Quantitative reassessment of the freshwater mussel fauna in the Clinch and Powell Rivers, Tennessee and Virginia. Conservation and management of freshwater mussels II. Upper Mississippi River Conservation Committee, Rock Island, Illinois, 72-97; Burkhead, N. M., & Jelks, H. L. (2001). Effects of suspended sediment on the reproductive success of the tricolor shiner, a crevice-spawning minnow. Transactions of the American Fisheries Society, 130(5), 959-968; Sutherland, A. B., & Meyer, J. L. (2007). Effects of increased suspended sediment on growth rate and gill condition of two southern Appalachian

this ten mile area, we urge the Corps to fulfill its ESA obligations by ensuring, at a minimum, that NWP activities taking place within ten river miles of listed species are subject to ESA Section 7 consultation. We also emphasize that only considering pollution impacts ten river miles downstream may not adequately address comprehensive downstream water quality impacts, such as cumulative sedimentation or biomagnification of contaminants. For this reason, the Corps must consult with the Services on this issue through programmatic consultation as discussed herein, to determine the best way to *ensure* that project-specific consultation takes place for all NWP activities that "may affect" listed species.

In sum, the Corps' reliance on the General Condition 18 PCN requirement does not guarantee that the Corps will always be notified when NWP activities take place in habitat for listed species, and thus does not fulfill the Corps' duty under the ESA to ensure against jeopardy. Furthermore, because a PCN is not required for many NWP activities, the Corps does not have the ability to track all NWP-authorized activities to ensure that the cumulative impacts of the NWP program are no more than minimal.

Rather than address these deficiencies in a reasonable manner, the Corps appears to be moving away from the PCN requirements and removing important triggers. For example, the Corps is proposing to remove several of the PCN triggers for NWP 12, such as when the activity involves mechanized land clearing in a forested wetland, and for permanent access roads in waters built with impervious materials. The Corps' stated intent of these changes is simply to "reduce burdens on the regulated public." 85 Fed. Reg. 57,324. However, it appears that the Corps is unlawfully prioritizing the needs of industry over the agency's mandate to protect the environment, since reducing the PCN requirements will lead to even less tracking of cumulative impacts. As set forth below, there are significant adverse effects associated with the clearing/conversion of forested wetlands for pipeline rights-of-way. Commenters strongly oppose the reduction of PCN triggers for NWP 12, which would result in a clear violation of § 404(e)'s mandate to ensure only minimal effects.

For several other NWPs—particularly NWPs regarding coal mining, such as NWP 21 (Surface Coal Mining), NWP 49 (Coal Remining Activities) and NWP 50 (Underground Coal Mining)— the Corps has proposed removing the provision that the permittee receive a written authorization from the Corps before commencing with the activity. Rather, the permittee would be able to

minnows. Environmental Biology of Fishes, 80(4), 389-403; Jones, E. B., Helfman, G. S., Harper, J. O., & Bolstad, P. V. (1999). Effects of riparian forest removal on fish assemblages in southern Appalachian streams. Conservation biology, 13(6), 1454-1465; Sutherland, A. B., Maki, J., & Vaughan, V. (2008). Effects of suspended sediment on whole-body cortisol stress response of two southern Appalachian minnows, Erimonax monachus and Cyprinella galactura. Copeia, 2008(1), 234-244; Zamor, R. M., & Grossman, G. D. (2007). Turbidity affects foraging success of drift-feeding rosyside dace. Transactions of the American Fisheries Society, 136(1), 167-176; Newcombe, C. P., & Jensen, J. O. (1996). Channel suspended sediment and fisheries: a synthesis for quantitative assessment of risk and impact. North American Journal of Fisheries Management, 16(4), 693-727; Newcombe, C. P., & MacDonald, D. D. (1991). Effects of suspended sediments on aquatic ecosystems. North American Journal of Fisheries Management, 11(1), 72-82. move forward if the Corps does not respond within 45 days of receipt of the PCN. This change is unnecessarily reckless. These are activities that have the potential to result in devastating environmental impacts and should not even be allowed to proceed under a NWP, and yet the Corps is proposing to remove an important component of the PCN process to ensure against more than minimal adverse impacts.

The Corps has previously explained that it is important for permittees to wait for authorization to ensure that the environment is protected. In the 2007 NWPs, the Corps specifically stated that changes to NWP 21 in 2002, "which requires not only notification to the Corps for all projects that may be authorized by this permit *but also explicit authorization from the Corps before the activity can proceed*, has strengthened the environmental protection for projects authorized by this permit."¹³⁵ The Corps went on to say that "One commenter requested that this requirement be removed from this NWP. However, we continue to believe that this 2002 change helps ensure that no activity authorized by this permit will result in greater than minimal adverse impacts, either individually or cumulatively, on the aquatic environment, because it requires a case-by-case review of each project."¹³⁶ That is because "Site-specific review of each pre-construction notification will ensure that NWP 21 authorizes activities with no more than minimal adverse effects on the aquatic environment, individually and cumulatively."

The Corp explains in the 2020 NWP proposal that when a Corps district receives a PCN, the district engineer reviews it and determines whether the proposed activity will result in no more than minimal individual and cumulative adverse environmental effects, and may add conditions to the NWP authorization to ensure that it complies with the CWA. Indeed, it states that "[t]he case-by-case review of PCNs often results in district engineers adding activity-specific conditions to NWP authorizations to ensure that the adverse environmental effects are no more than minimal," and that such review may result in a determination that an individual permit is actually required.

However, the proposed change would reverse course with no justification, and undermine those important protection. If, for example, there is an agency backlog, it may take longer than 45 days to fully review all PCNs. If the Corps changes the requirement to wait until NWP 21, 49 and 50 activities are authorized, then such activities may proceed under the NWP after 45 days even if they would have more than minimal individual and cumulative adverse impacts (or otherwise require an individual permit), simply because the Corps did not have time for a thorough review. That is a total abdication of the Corps' duty pursuant to CWA 404(e).

Indeed, NMFS found that "evidence suggests that the Corps has historically not reviewed significant percentages of PCNs to insure they are complete and the information is correct" and that "[t]he Corps historically has not routinely conducted field inspections of PCNs to verify that the information contained in those notifications captures the activity and impacts that actually occurred."¹³⁷ Removing this protection for coal mining activities—just so that there is

¹³⁵ 72 Fed. Reg. at 11,114.

¹³⁶ *Id*.

¹³⁷ 2014 NMFS BiOp at 269.

consistency across NWPs—is therefore completely contradictory to the Corps' prior statements, and the proposed change will result in a lack of oversight and a failure to ensure compliance with the CWA. These changes must therefore be rejected.

The Corps has also continued to allow several NWP activities to take place with no PCN requirement, including several activities that may have significant, adverse environmental impacts. This includes NWP 3 – Maintenance activities; NWP 4 – Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities; NWP 6 – Survey Activities; certain NWP 12 – Utility Line Activities; NWP 19 – Minor Dredging; NWP 25 – Structural Discharges; some NWP 33 – Temporary Construction, Access, and Dewatering activities; and some NWP 36 – Boat Ramps. There is simply no reason for such activities to be allowed without any notice to the Corps. The failure to require PCNs for so many activities undermines the Corps' baseless assertion that it *knows* the NWP program is not having more than minimal adverse environmental impacts as the CWA requires.

In sum, PCNs are essential to gather the data and other information necessary to show that the cumulative effects of the authorized activities are minimal and in order to analyze the potential short-term or long-term effects of the NWPs as required by the CWA.¹³⁸ PCN requirements further provide an important means for the Corps to ensure that impacts to listed species are not overlooked. In order to fulfill the Corps CWA and ESA duties, PCNs should always be required, and the proposed removal and/or relaxation of PCN requirements is unwarranted.

1. The Corps should not exempt federal agencies from the PCN requirement

The Corps has also proposed allowing Federal agencies to move forward on NWP projects without submitting PCNs to the Corps, including activities under NWP 8, Oil and Gas Structures on the Outer Continental Shelf; NWP 13, Bank Stabilization; NWP 38, Cleanup of Hazardous and Toxic Waste; NWP 45, Repair of Uplands Damaged by Discrete Events; and NWP 46, Discharges in Ditches. But removing the PCN requirement for federal agencies is simply a terrible idea that will further reduce the Corps ability to ensure that the NWP program is truly having only minimal individual and cumulative environmental impacts, and therefore must be rejected.

The Corps' reasoning for this proposed change is nonsensical. It states that "Federal agencies **may** employ staff who are environmental experts and who already review these projects before submitting PCNs to the Corps to determine whether they meet the criteria for the applicable NWP." However, *the Corps itself* has a clear duty to ensure that the activities it permits under the NWPs do not result in more than minimal impacts. Even though other agencies may review the activities, they may not share the Corps' understanding of what would constitute an undue adverse impact in the context of aquatic resources and habitats.¹³⁹ Moreover, those other

¹³⁹ As the Corps itself explains:

The PCN process is a critical tool, because it provides flexibility for district engineers to take into account the activity-specific impacts of the proposed activity and the effects those activities will have on the specific waters and wetlands affected by the NWP

¹³⁸ 33 U.S.C. §§ 1344(b) and (e).

agencies would not have any way to measure or assess the contribution of such activities to the cumulative impacts of the NWP program. Again, this is a total abdication of the Corps' duty to ensure that the cumulative impacts of the NWP program are no more than minimal, as the CWA requires.

Indeed, the Corps appears to rely almost entirely on review by the Division and District Engineers to ensure that the NWP program complies with the CWA.¹⁴⁰ Therefore, allowing NWP activities to take place absent such review—regardless of the potential expertise of other agencies—would undermine one of the most important aspects of the program that the Corps has identified for ensuring compliance with the CWA.

It is not even clear what the benefit would be. The Corps has not provided any indication that submitting a PCN is onerous. Indeed, if these other agencies must comply with NEPA and/or the ESA, they will have the PCN information readily available. And it is not clear how this would affect the compensatory mitigation requirements, since the Corps would apparently not be involved and therefore have no opportunity to ensure sufficient mitigation is being implemented. Keeping the PCN requirement is necessary for the Corps to be able to track the cumulative impacts of the NWP program. The proposal to allow federal agencies to undertake NWP activities without any notice to the Corps is inconsistent with the Corps' CWA duties, and should not be implemented.

E. The Corps Must Not Remove The 300-Linear Foot Stream Loss Limit

Since at least 2002, the Corps has employed specific thresholds for certain NWP activities in order to regulate the amount of stream and wetland loss that can occur, and thereby limit the adverse environmental impacts of those NWPs. Those limits have been expressed two ways – as an acreage threshold (usually limited to ½ acre of loss), and as a linear loss of streambed (i.e. limited to loss of 300-linear feet). For the 2020 iteration, the Corps is proposing to remove the 300-linear foot streambed loss limit and rely only on an acreage threshold for several NWP activities, including for NWPs 21 (Surface Coal Mining Activities), 29 (Residential

activity. It also allows the district engineer to take into account to what degree the waters and wetlands perform functions, such as hydrologic, biogeochemical cycling, and habitat functions, and to what degree those functions will be lost as a result of the regulated activity.

85 Fed. Reg. 57,314.

¹⁴⁰ For example, the Decision Documents for the NWPs state that:

The individual and cumulative adverse effects on the aquatic environment resulting from the activities authorized by this NWP, including compliance with all applicable NWP general conditions as well as regional conditions imposed by division engineers and activity-specific conditions imposed by district engineers, are expected to be no more than minimal. Division and district engineers will restrict or prohibit this NWP on a regional or case-specific basis if they determine that these activities will result in more than minimal individual and cumulative adverse effects on the aquatic environment.

Developments), 39 (Commercial and Institutional Developments), 40 (Agricultural Activities), 42 (Recreational Facilities), 43 (Stormwater Management Facilities), 44 (Mining Activities), and 50 (Underground Coal Mining Activities). This is a dangerous proposition that would lead to the loss of headwater streams and eradication of important stream habitat. Moreover, it will almost certainly result in more than minimal adverse environmental impacts in violation of the CWA. It is also directly contrary to statements made by the Corps regarding the importance of the 300-linear foot loss limit, and therefore adopting the proposed change would be arbitrary, capricious and unlawful.

Removing the 300-foot limit for streambed loss will lead to the eradication of vulnerable headwater streams and drastically increase the direct and cumulative adverse environmental impacts of the NWP program, putting waterways and wildlife at risk. This appears to be nothing more than a handout to industrial interests – primarily the mining industry – and is yet another example of the Corps unlawfully prioritizing the interests of regulated entities over protection of the environment. Removing this important limit on streambed loss would result in a clear violation of the Corps' duty to ensure that the effects of the NWP program are only minimal, and the Corps must not proceed with this attempt to undermine one of the few real protections in the NWP program. However, if the Corps decides to move forward with this proposal, Commenters note that the impacts of that decision must first be subject to programmatic ESA Section 7 consultation, as described above, since this change certainly "may affect" listed species.

Indeed, using an acreage limit makes little sense when dealing with linear features like streams, where a linear-foot limit makes more sense.¹⁴¹ The proposed rule even states that: "The numeric limits of NWPs may be quantified as acres, linear feet, or cubic yards. The appropriate unit of measure for a quantitative limit for an NWP *is dependent on the type of activity being authorized by the NWP* and the potential types of direct impacts authorized activities may have on jurisdictional waters and wetlands." For activities like coal mining that can have significant adverse impacts on streams (linear features), it remains unclear how the Corps could possibly find that allowing ½ acre of fill – potentially over a thousand linear feet of streambed loss – will not result in more than minimal impacts including the loss of stream functions, particularly given that the regulations at 33 CFR 332.2 define "functions" as "the physical, chemical, and biological processes that occur in ecosystems." As set forth herein, coal mining has had devastating impact on the physical, chemical and biological processes in waterways, and the Corps is exacerbating the issue with this proposed change.

The Corps itself has previously noted the importance of the 300-linear foot limit for protecting streams. In the 2007 NWPs, the Corps stated that the 300 linear foot limit helps "ensure that the applicable NWPs will authorize activities with minimal individual and cumulative adverse effects on the aquatic environment."¹⁴² The Corps repeated this statement several times

¹⁴¹ The Corps relied on the totally unsupported proposition that "When only a portion of the stream bed is filled or excavated, the portion of the stream bed that is not filled or excavated can continue performing its physical, chemical, and biological processes." But that may not be true, given impacts to the whole stream from dredge/fill activities (i.e. sediment dispersal) and the Corps fails to provide any scientific support for this.

¹⁴² 72 Fed. Reg. 11,097.

throughout the 2007 NWPs, and then again in the 2012 NWPs, confirming multiple times that "We believe the 300 linear foot limit is *appropriate to ensure that losses of stream beds result in minimal adverse effects on the aquatic environment.*"¹⁴³

In fact, the Corps was rather explicit in the 2012 NWPs regarding the importance of the 300linear foot streambed loss limit, particularly with regard to ensuring that coal mining pursuant to NWP 21 does not result in undue adverse environmental impacts. The Corps stated that "The 1/2-acre and 300 linear foot limits will substantially reduce the amount of stream bed and other waters lost as a result of activities authorized by [] NWP [21], and limit this NWP to minor fills associated with surface coal mining activities, such as the construction of sediment ponds."¹⁴⁴ The Corps further stated that the limits on NWP 21 were intended to prevent its use for valley fills, stating that absent such limitations NWP 21 "could be used to authorize discharges of dredged or fill material into waters of the United States to construct valley fills," and therefore the limitations are necessary to "ensure that the adverse effects of discharges authorized by NWP 21 are minimal, both individually and cumulatively." This suggests that removing the 300-foot limit might open up use of NWP 21 for more than "minor fills," and may even allow for valley fills leading to significant environmental degradation, in clear violation of CWA Section 404(e).

The Corps even stated in the 2012 NWPs that "we believe it will generally not be the case that losses of more than 300 linear feet of a perennial stream would constitute a minimal adverse effect."¹⁴⁵ In other words, the Corps previously *determined* that losses of streambed greater than 300 feet likely *would* have more than minimal adverse effects, and therefore *could not be permitted* under the CWA unless a District Engineer provided a waiver based on a site-specific analysis.

The importance of the streambed loss limit was confirmed by the Corps in 2017, when it stated in the proposed NWP rulemaking that "measuring losses of stream bed in linear feet provides a useful approach for ensuring no more than minimal adverse environmental effects by limiting the length of stream bed that can be filled or excavated, below the acreage limit for that NWP."¹⁴⁶ As the Corps explained in 2017, without the 300 foot limit, only the 1/2-acre limit would apply, which would allow for a stream bed that has a mean width of 20 feet to be filled or excavated for **1,089 linear feet**.¹⁴⁷ The 1/2 -acre limit thus provided a cap on streambed loss allowed through waivers, but was not deemed sufficient on its own to prevent more than minimal environmental impacts. And now the Corps is proposing to do away with the need for a waiver, and automatically allow significant streambed loss without the extra review that was previously required.

¹⁴³ 77 Fed. Reg. at 10,190 (emphasis added).

¹⁴⁴ *Id.* at 10,205.

¹⁴⁵ *Id*.

¹⁴⁶ 81 Fed. Reg. at 35,213.

¹⁴⁷ *Id.* (emphasis added).

But the waiver provision is important, because it requires a district engineer to coordinate with other agencies (under paragraph (d) of general condition 32),¹⁴⁸ and then review the site-specific impacts and make a written determination whether the proposed activity will result in no more than minimal individual and cumulative adverse environmental effects, after considering the factors in paragraph 2 of Section D, District Engineer's Decision, including the direct, indirect and cumulative effects of the activity; the environmental setting in the vicinity of the NWP activity; the type of resource that will be affected; the functions provided by the aquatic resources that will be affected; the degree or magnitude to which the aquatic resources perform those functions; the extent that aquatic resource functions will be lost; the duration of the adverse effects; and the importance of the aquatic resource functions to the region.¹⁴⁹ That process also allows the district engineer to determine whether mitigation is required to ensure no more than minimal adverse environmental effects. The proposal to allow extensive streambed loss to occur without this important analysis will lead to significant adverse impacts, particularly to headwater streams. These headwater streams are essential to protecting water quality and biodiversity.¹⁵⁰ Simply put, the Corps' proposal cannot be squared with explicit statements made by the Corps that "[t]he 300 linear foot limit for losses of stream bed is generally necessary to ensure that NWP 21 authorizes only those activities that result in minimal adverse effects on the aquatic environment."¹⁵¹ The same applies to several other NWPs where the Corps previously stated that the 300-linear foot loss limit was *necessary* to ensure that activities resulted in only minimal individual and cumulative adverse impacts, and yet now proposes to remove that limit, such as for NWPs 39, 40, 44, and 50.

¹⁴⁹ It is notable that the Corps argues that the ½ acre limit is sufficient because the District Engineer will review PCNs and do an analysis of loss of functions to determine compliance with 404(e); however, the Corps has also proposed limiting the time for review of PCNs to 45 days, making it more than likely that the Corps will not have sufficient time to review these projects and ensure that the impacts will be no more than minimal.

¹⁵⁰ See attached studies: Meyer, Judy L., David L. Strayer, J. Bruce Wallace, Sue L. Eggert, Gene S. Helfman, and Norman E. Leonard, 2007. The Contribution of Headwater Streams to Biodiversity in River Networks. Journal of the American Water Resources Association (JAWRA) 43(1):86-103; Colvin SAR, Sullivan SMP, Shirey PD, Colvin RW, Winemiller KO, Hughes RM, Fausch KD, Infante DM, Olden JD, Bestgen KR, Danehy RJ, Eby L. Headwater streams and wetlands are critical for sustaining fish, fisheries, and ecosystem services. Fisheries. 2019;44(2):73–91; Richardson JS. Biological diversity in headwater streams. Water. 2019; 11(366):1–19; Jackson K. The importance of headwater streams. Land-Grant Press by Clemson Extension. 2019; Alexander, Richard B., Elizabeth W. Boyer, Richard A. Smith, Gregory E. Schwarz, and Richard B. Moore, 2007. The Role of Headwater Streams in Downstream Water Quality. Journal of the American Water Resources Association (JAWRA) 43(1):41-59.

¹⁵¹ *Id.* at 10,211

¹⁴⁸ The Corps' proposal to remove the agency coordination process for seeking input from federal and state agencies on whether the district engineer should grant a waiver of the 300 linear foot limit is particularly concerning. This process is essential to ensuring that NWP activities do not result in more than minimal impacts through coordination with FWS, EPA and State natural resource agencies. The Corps' attempt to undermine this key process, which it previously states was necessary to comply with the CWA, is clearly arbitrary and capricious.

The Corps has failed to provide any reasonable explanation for its about-face. The reasoning set forth in the proposed rulemaking is unfounded, and indeed highlights the fact that there is no scientific basis for the decision. The Corps avers that the 300-linear foot limit is more restrictive for smaller streams—as well as being a more stringent quantitative limit than non-tidal wetlands, ponds, or lakes—but that is exactly the point. The 300-foot limit accounts for the linear nature of streams (as opposed to ponds and lakes) and the size of the stream to help determine what is an acceptable level of impacts. Smaller streams are more susceptible to catastrophic harm from NWP activities (i.e. total loss of functions), and the Corps has failed to show how the ½ acre limit could possibly be sufficient to protect small headwater streams. Indeed, while the Corps claims that there is no justification for treating these streams differently, it then goes on to acknowledge that "In headwater streams, hydrologic, biological, and geomorphic processes are strongly influenced by interactions between surrounding lands and the stream channels (Gomi et al. 2002). In rivers and larger streams, flooding usually occurs more gradually and for longer durations compared with the more abrupt flooding of headwater streams (NRC 2002)." These are important differences that warrant stricter controls for smaller, sensitive streams.

The proposal further states that this change is meant to comply with E.O. 13783, which requires agencies to find ways to reduce regulatory burdens on entities that develop or use domestically produced energy sources. But the President cannot, by executive order, provide a basis for the Corps to violate the CWA. The Corps avers that the ½ acre limit will suffice to ensure that the NWPs result in no more than minimal adverse environmental effect;¹⁵² however, that is completely at odds with the Corps' prior statements that the 300 foot limit was *also* necessary to limit adverse effects and ensure compliance.¹⁵³ There is simply no basis for the Corps to now find —just because the current administration wants to provide a hand-out to industrial mining interests—that the 300-foot limit is somehow unnecessary.¹⁵⁴ E.O. 13783 cannot and does not override the clear requirement of CWA 404(e). This is clearly a political/economic, not a scientific, decision. The result, however, is that the affected NWPs will result in greater than minimal adverse environmental impacts, in direct violation of the CWA.

¹⁵² The Corps claims it "will review PCNs and do an analysis of loss of functions to determine compliance with 404(e)," but as discussed above the Corps is proposing to limit itself to a 45-day review period, and it remains unclear how/whether the Corps could provide a sufficient analysis within 45 days for the thousands of PCNs that are submitted each year.

¹⁵³ The Proposed Rule even states that "[t]he appropriate unit of measure for a quantitative limit for an NWP is dependent on the type of activity being authorized by the NWP and the potential types of direct impacts authorized activities may have on jurisdictional waters and wetlands." Based on that statement, it would appear logical to set a linear-foot quantitative limit for activities that have linear impacts, such as mining activities that fill narrow headwater streams. Using an acreage limit would be appropriate for activities that fill open waters or wetlands, but an acreage limit does not make sense for linear impacts, such as stream bed loss.

¹⁵⁴ The Corps discusses at length the use of "functional or condition assessments" to ensure that impacts to streams will be only minimal, but it never explains how relying on these assessments could possibly support allowing stream bed losses of greater than 1,000 linear feet with no additional waiver review.

Therefore, the Corps must not follow through with the proposal to remove the 300-foot streambed loss limit from any NWPs. Commenters urge the Corps to reject this proposed change, and to maintain the current waiver process for losses of streambed greater than 300 linear feet. At the very least, the Corps should keep that process in place for headwater streams (1st and 2nd Order).

Commenters would potentially support a hybrid approach, where losses of stream bed would continue to be quantified in linear feet as long as the activities authorized by these NWPs would result only in the loss of stream bed, and the linear foot limits for losses of stream bed would be different by stream order. However, the Corps' proposal is absurd. Allowing 2,500-3,500 linear feet of streambed loss for sensitive headwater 1st and 2nd order streams is unconscionable and would certainly cause more than minimal impacts – indeed, it would eradicate these small streams akin to allowing mountain top removal mining, without even requiring a waiver. The amounts of loss provided in the proposed hybrid simply do not account for the sensitive nature of smaller streams, and really just track the ½ acre limit approach, making this proposal meaningless. Rather, a hybrid approach that accounts for the sensitivity of the impacted waterways would be a potential viable alternative. Commenters suggest that the Corps should maintain the waiver for smaller streams and provide limits for 3rd-6th order streams that are sufficiently protective, based on the best available science.

F. Comments on Specific NWPs and General Conditions

1. NWP 12 comments

On August 1, 2016, a group of environmental and public interest organizations submitted the comments on the proposed reissuance of NWP 12 ("2016 Comments") (attached hereto). The 2016 Comments set forth a number of reasons why the proposed reissuance of NWP 12 violated the NEPA, the ESA, and the CWA. *Id.* The Corps almost entirely ignored these critiques and reissued NWP 12 as proposed on January 6, 2017. 82 Fed. Reg. 1860. A number of the commenting groups subsequently challenged the Corps' 2017 reissuance of NWP 12 in federal court, which resulted in a decision finding the Corps' violated the ESA by failing to engage in programmatic consultation pursuant to Section 7 of the ESA. *Northern Plains Resource Council et al. v. U.S. Army Corps of Engineers*, No. 4:19-cv-00044 (D. Mont.), appeal pending, No. 20-35412 (9th Cir.). The district court has not yet ruled on plaintiffs' NEPA and CWA claims, suggesting it is likely the Corps would remedy any deficiencies in those analyses upon remand.

Nonetheless, the Corps now proposes to again reissue NWP 12 without addressing any of the issues raised in the 2016 comments or in the subsequent litigation. Indeed, the Corps' 2020 proposal for NWP 12 is substantially the same as the 2017 version, with only a few changes which are addressed herein. Because the issued raised in the 2016 Comments apply equally to the current proposed reissuance of NWP 12, commenters hereby incorporate the 2016 Comments and the arguments made therein, and request that the 2016 Comments and all exhibits be made part of the administrative record for the Corps current proposed reissuance of NWP 12.¹⁵⁵ Several of the comments above have highlighted harm from NWP 12-authorized activities, which pose a significant risk of adverse environmental impacts – including to protected species –

¹⁵⁵ The 2016 Comments and attachments are being provided on a thumb drive that has been sent to the Corps to be included in the record here.

from the construction and operation of fossil fuel pipelines, and which should not be authorized by a NWP, but instead require an individual permit. These impacts include not only direct harm from habitat loss, noise and other disturbances during construction, but also harm to waterways and the species that rely on them from spills and leaks. Furthermore, the development of oil and gas pipelines results in increased greenhouse gas emissions and water quality/quantity impacts from hydraulic fracking and the burning of fossil fuels, which are foreseeable future actions that must be included in the cumulative impacts assessment. As set forth herein, these issues must be fully analyzed in an EIS and through programmatic ESA consultation.

a. Proposed changes

While Commenters do not take issue with the Corps' proposal to separate out NWP 12 into three separate NWPs, we are concerned about several aspects of these permits. This includes reducing the number of PCN thresholds from 7 to 2. As discussed above, the Corps' attempt to reduce the number of PCNs only undermines its ability to ensure that the NWPs are not having more than minimal individual and cumulative adverse impacts, and does not comply with the Corps' mandate under the ESA to ensure consultation occurs when necessary. And the reasoning provided by the Corps for reducing the PCN thresholds—relying almost entirely on the temporary nature of impacts from trenching across streams while discounting the significance of short-term impacts, and arguing that affected wetlands will continue to provide habitat functions even if there is a drastic change in plant community structure—are unconvincing, and fail to show how it could possibly ensure that CWA Section 4040(e) is met without a process in place to track all NWP activities.

Perhaps the most alarming proposed change is the Corps' proposed removal of the PCN requirement for mechanized clearing of forested wetlands. Again, the Corps admits that the primary goal for removing this PCN is to accommodate industry, but it further attempts to justify the removal of this PCN by claiming "mechanized landclearing of forested wetlands in the utility line right of way usually results in temporary impacts to the wetlands and other waters..." 85 Fed. Reg. 57325. The Corps appears to base this on the theory that although trees are permanently removed in order to maintain the right of way, some vegetation would be allowed to grow back, and a schrub-shrub wetland would remain. *Id*.

The notion that the conversion of forested wetland results in only temporary impacts is false. The Corps appears to believe that all wetlands are equal, so as long as some form of a wetland is allowed to persist, there are no permanent impacts. But as set forth below, the conversion of forested wetlands results in significant adverse effects and loss of wetlands functions.

In fact, the Decision Document even acknowledges this, as have previous iterations:

The construction of oil or natural gas pipeline rights-of-way through forested wetlands may result in the conversion of forested wetlands to scrub-shrub or emergent wetlands. Those conversions may be permanent to maintain the oil or natural gas pipeline in good, operational order. The conversion of wetlands to other types of wetlands may result in the loss of certain wetland functions, or the reduction in the level of wetland functions being performed by the converted wetland. Decision Document, at 51; *see also* 72 Fed. Reg. 10,195 (Feb. 21, 2012) ("District engineers may require compensatory mitigation to offset permanent losses of wetland functions when such mechanized landclearing occurs in forested wetlands.)

Because the Corps does not consider forested wetlands conversion a "loss" of waters of the U.S. that counts toward the ½ acre threshold (which commenters urge the Corps to do, see 2016 Comments at 20-22), there is no limit to the amount of forested wetlands conversion that can occur, even at individual water crossing. For example, the TransCanada Gulf Coast Pipeline resulted in over 10 acres of forested wetlands conversion *even at numerous individual wetlands crossings*; in Texas' Pine Island Bayou alone, the pipeline resulted in the permanent conversion of over 72 acres of forested wetlands. Yet, the project was verified under NWP 12. At the very least, the Corps should retain the PCN requirement for forested wetlands clearing so that it has the opportunity to ensure only minimal effects. Without even that minimal level of protection, NWP 12 activities will surely result in more than minimal effects in violation of §404(e).

Finally, the Corps has proposed requiring a PCN for NWP 12 pipelines that exceed 250 miles. As set forth above, commenters believe the Corps should require PCN for all uses of NWPs to ensure minimal effects. However, in the alternative, the Corps should reduce this proposed threshold and require a PCN for any NWP 12 pipeline that exceeds 50 miles. The Corps should further require a PCN for any NWP 12 pipeline that would cross the same waterway more than once, cross multiple waterways within the same watershed, or cross more than a total of 10 waterways along the project length.

b. "Separate and distant" crossings

Commenters also remain concerned about the Corps' use of NWP 12 for each "separate and distant" water crossing for linear projects. NWP 12 does not define the phrase "separate and distant" or impose any actual spacing requirements, nor does it require district engineers to make any "separate and distant" finding. Thus, there is nothing to prevent a pipeline with numerous water crossings in close proximity to each other and/or on the same waterbody from relying on NWP 12 and causing more than minimal cumulative adverse effects. Since NWP 12 can be used numerous times along a pipeline or utility route—even if there are high concentrations of water crossings in specific areas—with no mechanism to ensure impacts would be minimal, the Corps has failed to ensure that projects authorized by NWP 12 comply with Section 404(e).

The 2016 Comments raised this issue and urged the Corps to define "separate and distant," and/or develop some standard by which district engineers would ensure crossings are truly "separate and distant" so as to reduce cumulative effects. *See* 2016 Comments at 13-15. The Corps ignored the comments. The Corps' 2017 verification of the Keystone XL Pipeline demonstrates yet again that this provision has no teeth. There, the pipeline was proposed to cross the same waterway numerous times, sometimes over 10 times within the span of a mile. Many water crossings were less than 1/10 of a mile apart. Yet, the district engineers issued verification decisions without ever evaluating whether the crossings were actually "separate and distant" or applying any standard. The Corps must fix this.

c. Oil spills

Commenters are further concerned that the Decision Document for NWP 12 does not adequately address the disastrous environmental impacts of oil spills. While the Decision Document briefly acknowledges the possibility of spills, it largely defers to other agencies that have some degree of regulatory authority over pipelines. The Corps does not use any data to assess potential cumulative impacts, even though data exists regarding the likelihood of such spills occurring. The 2016 Comments provide extensive information on the risks and impacts of oil and gas pipeline spills and ruptures, which the Corps should evaluate here. See 2016 Comments at 61-79. The failure to address these impacts is a glaring omission considering the potential for significant environmental impacts associated with NWP 12 projects, and the Corps has failed to take the "hard look" that NEPA requires.

In *Northern Plains Res. Council v. United States Army Corps of Eng'rs*, the Corps' failure to evaluate the oil spill impacts of NWP 12 activities was at issue; yet the court declined to rule on the question because it had already remanded to the Corps based on the violation of the ESA and anticipated the Corps would prepare additional environmental analyses. 2020 U.S. Dist. LEXIS 66745, *24 (Dist. Mont., April 15, 2020). The Corps should therefore conduct that analysis now.

d. Cumulative effects

Commenters are also concerned about the lack of any real analysis of the cumulative impacts of NWP 12 activities. The Decision Document for NWP 12 acknowledges that:

Activities authorized by this NWP may alter the habitat characteristics of streams, wetlands, and other waters of the United States, which may decrease the quantity and quality of fish and wildlife habitat. The construction of oil or natural gas pipeline right-of-ways may fragment existing habitat and increase the amount of edge habitat in the area, causing changes in local species composition. The construction or replacement of oil or natural gas pipelines and the establishment and maintenance of their rights-of-way may fragment terrestrial and aquatic ecosystems and may affect local fish and wildlife values.

Clearly, then, there is the potential for significant impacts, yet the Corps never considers the cumulative impacts of these activities. Indeed, the Corps estimates that approximately 47,750 activities could be authorized over a five-year period until this NWP expires, resulting in impacts to approximately 3,160 acres of waters of the United States, including jurisdictional wetlands. But the Corps fails to discuss not only the potential for significant cumulative impacts, it fails to establish how such impacts would even be tracked to ensure that they remain only minimal. Commenters submit that such impacts have proven to be more than minimal, and therefore this NWP is not meeting the requirements of CWA 404(e).

The 2016 Comments provide extensive information on the cumulative effects of pipelines, including the impacts of forested wetlands conversion, which the Corps should evaluate here. *See* 2016 Comments at 79-96.

As set forth above, the Corps has acknowledged that the conversion of high-quality forested wetlands to lesser quality wetlands results in permanent adverse effects and loss of certain wetlands functions. Forested wetlands are unique in their functions and provide numerous benefits that other wetlands do not. The attached Forest Service report discusses the hydrology and functions of palustrine forested wetlands as compared to lesser quality scrub-shrub wetlands.¹⁵⁶

The attached report details some of the environmental impacts of converting forested wetlands in Pennsylvania to herbaceous wetlands for the construction and permanent maintenance of pipeline rights-of-way.¹⁵⁷ Some of the functional losses that would result from wetland conversion include: decreased structural and species diversity; decreased soil and streambank stabilization; decreased erosion and sedimentation control; loss of forest interior habitat and species; decreased nutrient storage; and loss of visual and aural screening.¹⁵⁸

The Corps must evaluate the adverse impacts, including cumulative impacts, of permanently clearing large swaths of forested wetlands during the construction and permanent maintenance of pipeline rights-of-way. An evaluation of these impacts will unequivocally show that the impacts exceed 404(e)'s minimal effects threshold, especially where there is no limited to the amount of forested wetlands conversion that can occur, or even any PCN requirement that would allow the Corps to review the level of impacts at the project level.

e. Frac-outs

The Draft Decision Document also fails to evaluate the risks, impacts, and mitigation measures associated with "frac-outs," or inadvertent returns of drilling fluid. The Corps explains:

During construction of oil or natural gas pipelines, where horizontal directional drilling is used to install or replace a portion of the pipeline, there is a possibility of inadvertent returns of drilling fluids that could adversely affect wetlands, streams, and other aquatic resources.

Dec. Doc. at 49. However, the Corps refuses to evaluate the impacts of this reasonably foreseeable consequence of NWP 12 activities by concluding: "Those inadvertent returns of drilling fluids are not considered discharges of dredged or fill material that require Clean Water Act section 404 authorization." *Id*.

¹⁵⁶ U.S.D.A., Forested Wetlands: Functions, Benefits, and the Use of Best Management Practices, attached hereto and available at https://www.fs.usda.gov/naspf/sites/default/files/forested wetlands hi res.pdf.

nups://www.is.usda.gov/naspi/sites/default/mes/forested_wetlands_m_res.pdf.

¹⁵⁷ *Schmid & Company, Inc.*, The Effects of Converting Forest or Scrub Wetlands into Herbaceous Wetlands in Pennsylvania: A Report to the Delaware Riverkeeper Network 2014, attached hereto and available at <u>http://www.schmidco.com/Conversion_Final_Report.pdf</u>.

¹⁵⁸ *Id*.

Regardless of whether the releases of drilling fluid are themselves fill material, the Corps' issuance of a Section 404 permit for Keystone XL is the "legally relevant cause" of these releases, which occur during pipeline construction under jurisdictional waterways. *FERC*, 867 F.3d at 1373. Thus, NEPA requires the Corps to take a hard look at the frac-outs that may occur with Keystone XL at specific water crossings, regardless of whether the Corps has regulatory authority over the underlying activity or pollutants at issue—in this case, drilling fluid. *See, e.g., Ocean Advocates*, 402 F.3d at 867; *Coal. to Protect Puget Sound Habitat*, 2019 WL 5103309, at *6.

That analysis should include an evaluation of the potential impacts, frequency, size, and potential mitigation measures from frac-outs; and the likelihood of frac-outs occurring at each water crossing along the Keystone XL route, depending on site-specific conditions (i.e., which crossing method—HDD or one of the various trenching methods—would minimize impacts at each location.

During the Corps' 2017 reissuance of NWP 12, the Corps relied on a document that raises many troubling questions about the safety and environmental impacts of HDD in light of frac outs. The document was a PowerPoint presentation attached to an internal email from Jennifer Moyer, Chief of the Corps' Regulatory Program, during an exchange about CEQ's concerns about fracouts.¹⁵⁹ The presentation states that many frac-out incidents have been reported and that releases range "from a few gallons to 10,000+ gallons" and "from a few square feet to several acres of wetlands, and up to a mile of stream," id. at 13; and that, in addition to water and bentonite, drilling mud can contain lignosulfates, which are "highly toxic to aquatic organisms," barium sulfate, which has "significant ecotoxicity to aquatic organisms," and other substances like calcium carbonate and hematite for which the ecotoxicity is unavailable, id. at 15. It also describes some known impacts of drilling mud on surface waters, *e.g.*, that it "[s]mothers and displaces macroinvertebrates," "[r]educes food availability to upper trophic levels," "[r]educes quality of fish spawning and rearing areas," and "[r]educes fish refuge sites," and that "[s]uspended solids interfere with fish gill development and function," id. at 17-18. The presentation goes as far as concluding that the environmental risks of inadvertent returns could outweigh the impacts of a non-HDD crossing method, id. at 22 (referring to "a well-managed open cut in high quality waters").

In 2020, the Corps' Southwest Galveston (SWG) District issued a study discussing "installation issues" with HDD that primarily focuses on frac-outs.¹⁶⁰ The Corps notes: "Drilling fluid release (or mud loss) has become a critical issue which engineers and contractors face during HDD because Frac-Out causes project delays and poses grave risks in environmental sensitive and

¹⁵⁹ Moyer Powerpoint (attached hereto).

¹⁶⁰ Sunday Akinbowale, P.E., Robert Thomas, P.E., SWG'S History/Case Studies of Frac-Out and Other Horizontal Directional Drilling (HDD) Installation Issues (2020), Attached hereto and available at <u>https://www.swg.usace.army.mil/Portals/26/THOMAS-SWG%20HDD%20-%20Winter%20Stakeholder%20Partnership%20Forum%202020.pdf</u>.

urban areas."¹⁶¹ The study includes case studies of 11 incidents of frac-outs in the SWG district alone, and determines one of the main causes for frac-outs is that the equation to determine maximum allowable pressure may not be suitable depending on site conditions. Id. at 26-29.

Another source produced by a drilling service states that "[i]t is relatively common for a frac-out to occur on a HDD project" and while they are usually minor, "[t]he seriousness of a frac-out depends on where it occurs. If the frac- out occurs in an environmentally or culturally sensitive area (which you are generally trying to avoid by using HDD), there is reason for concern."¹⁶² It further explains:

The drilling fluid itself may not be toxic, but the fine particles can smother plants and animals, particularly in an aquatic environment. If a saltwater polymer fluid is used, the salt can also impact on freshwater systems and terrestrial vegetation... Frac -outs may also damage infrastructure or nearby services. There are reports of sections of roads rising, nearby water pipelines failing as the frac- out washed away the bedding sand, power boxes filling with fluid and vegetation disappearing into a sinkhole caused by a frac -out.

The frequency of frac-outs in the installation of pipelines using HDD is outlined in a 2019 study of four gas pipelines in the Appalachian region.¹⁶³ On the Mariner East II Pipeline (ME2) alone, there were a shocking number of Inadvertent Releases (IRs), or frac-outs, and many of them adversely impacted wetlands and waterways:

A total of 97 [Notices of Violations ("NOVs")] had been issued in Pennsylvania for the ME2 Pipeline through the summer of 2019 (PADEP, 2019a). Of these, 87 involved at least one IR, and many cited several IRs on the same NOV. An IR occurs when drilling fluid used in HDD is accidentally released to the ground or any surface water at the drill site or adjacent to the drill site. This includes releases to wetlands, streams, and upland areas, among others (PADEP, 2018a). ...

As of June 19, 2019, 125 IRs were recognized by PADEP, resulting in NOVs, with 40 percent of these IRs impacting wetlands, 52 percent impacting streams, 12 percent impacting uplands and 14 percent impacting another area or unnamed area. Many IRs impacted more than one location—for example, drilling fluids from the same IR were released into a stream and a wetland on or near the site (PADEP, 2019a).

¹⁶¹ *Id* at 8.

¹⁶² Charles Stockton, Stockton Drilling Services, Technical Guide: information and advice for the successful planning and execution of horizontal directional drilling works, attached hereto and available at http://stocktondrillingservices.com/wp-content/uploads/2017/08/Stockton-HDD-ebook-4-1.pdf

¹⁶³ Meghan Betcher, Alyssa Hanna, Evan Hansen, David Hirschman, Pipeline Impacts to Water Quality: Documented impacts and recommendations for improvements (August 21, 2019), attached hereto and available at https://www.tu.org/wp-content/uploads/2019/10/Pipeline-Water-Quality-Impacts-FINAL-8-21-2019.pdf

Tens to hundreds of thousands of gallons of drilling fluid had been released into surrounding areas. According to NOVs in which the amount of fluid released was quantified, an estimated 83,000 to 110,900 gallons of drilling fluid were released into the surrounding areas (PADEP, 2019a). This is a conservative number, because the NOVs also document 41 occasions when an unknown amount of drilling fluid was released during IRs.

PADEP maintained databases detailing IRs to waters (PADEP, 2019b) and upland areas (PADEP, 2019c). According to these databases, almost 275,000 gallons of drilling fluid were released via IRs to Pennsylvania waters during construction of ME2, with 30 instances that did not result in a NOV or Consent Order Agreement. Almost 58,000 gallons were released in upland areas, with 114 instances that did not appear to have resulted in a NOV or Consent Order Agreement (PADEP, 2019b; PADEP, 2019c). PADEP requires all IRs to be contained and the fluids removed from the site where possible, such as in a wetland (Blosser, 2019). However, containment and removal from streams can be more difficult.¹⁶⁴

The same report discusses an April 2017 incident where, while using HDD to construct the Rover Pipeline under the under the Tuscarawas River in Ohio,

[A]n estimated two million gallons of drilling fluid contaminated with diesel fuel were spilled into a pristine, protected wetland and covered it in up to 13 inches of drilling mud (State of Ohio v. Rover Pipeline, 2017; Rudell, 2017a; Rudell, 2017b). These were not isolated incidents. In January 2018, almost 150,000 gallons of drilling fluid were spilled at the same Tuscarawas River drill site (Chow, 2018). Additionally, 50,000 gallons of drilling fluid were spilled one day after the 2017 Stark County incident in Richland County, Ohio, and the following month 10,000 gallons of drilling fluid were spilled into a Harrison County pond and stream (Associated Press, 2017; Hendrix and Renault, 2017). Eleven incidents of drilling fluid being discharged into state waters were listed in legal proceedings (State of Ohio v. Rover Pipeline, 2017).¹⁶⁵

Similarly, a Minnesota case study discusses several frac-outs into wetlands in Minnesota, and discusses the causes, effects, site-specific conditions that allowed frac-outs to occur, and lessons learned.¹⁶⁶ The report specifically cites the need for additional analysis to determine long-term impacts to wetlands:

There has been a great deal of speculation as to the ecological effects of releasing drilling fluid into sensitive environmental receptors, such as wetland systems. Many of the influences on recovery of the wetland systems will be determined by site-specific

¹⁶⁴ *Id*. at 19.

¹⁶⁵ *Id.* at 26.

¹⁶⁶ Dana A. Slade, Case study: Environmental considerations of Horizontal directional drills (2000), attached hereto.

variables. The long-term effects of depositing drilling fluid in wetlands are yet unknown. However, there is evidence that the short-term effects of releasing drilling fluid into wetlands include temporary displacement of resident fauna, smothering of benthic organisms and plant root systems, increased turbidity of water quality, and effects on water chemistry and wetland hydrology.¹⁶⁷

While HDD may be the least damaging construction method at many water crossings, the risk of frac-outs may make it unsuitable at many other locations, which makes the need for a crossing-by-crossing analysis. The attached paper discusses the levels of toxicity of various HDD drilling fluids, the impacts of frac-outs on plant communities, invertebrates, and fish and fish habitat, and concludes that HDD may not be suitable at particularly sensitive locations.¹⁶⁸

In short, the Corps must evaluate the risks and impacts of frac-outs associated with NWP 12 activities into wetlands and waterways, as well as standards by which to determine the safety of HDD at particular locations and mitigation measures.

f. District Engineer's Decision

We are pleased that the Corps is proposing to retain the language in the section entitled "D. District Engineer's Decision," which specifies that for linear projects, the cumulative effects determination must include "an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by NWP." 85 Fed Reg. 57392. Likewise, the proposed rule requires PCNs to include all waterways crossed by the project "including those single and complete crossings authorized by NWP but do not require PCNs" in order for the district engineer to evaluate the cumulative adverse environmental effects. *Id.* at 57391.

However, not all Corps district offices have appeared to follow that guidance, and/or have applied it inconsistently. For example, the proposed Keystone XL pipeline would cross over 700 waterways in three states. In 2017, the applicant, TC Energy, submitted three PCNs to proceed under NWP 12 in the states of Nebraska, South Dakota, and Montana, due to the pipeline's crossing of a few Section 10 waters in each state as well as potential impacts to listed species. Although a small number of waterways had triggered the need for PCNs, the three PCNs listed the hundreds of "non-PCN" waterways.

The Corps subsequently issued NWP 12 verifications that were limited to the individual Section 10 waterways, with no evaluation of cumulative effects of the overall project, including the hundreds of listed "non-PCN" waterways. In fact, the verifications made clear the scope of the cumulative effects analysis extended just outside those individual waterways. After those verifications were challenged in court, the Corps suspended them. However, it continued to maintain in court filings that TC Energy was free to proceed with construction through the

¹⁶⁷ *Id*.

¹⁶⁸ Scott Reid, Paul Anderson, HDD may not be the answer for all sensitive water crossings, Pipe Line and Gas Industry, July 1998, Attached hereto.

hundreds of non-PCN waterways because those were "already authorized" under NWP 12 without the need for any Corps verification or other-project level approval; i.e., because they meet the terms and conditions of NWP 12 and do not require a PCN.

Clearly, the requirement that District Engineers evaluate the cumulative effects of all pipeline water crossings (including the "non-PCN" waterways) can only be effective in ensuring cumulative effects if the pipeline has not already been built through the majority of the waterways. As such, the Corps must clarify that when an applicant submits a PCN for a linear project crossing multiple waterways, (a) the PCN must include a description of all water crossings, even those that do not trigger the need for PCNs (i.e., all non-PCN waters); (b) the district engineer must evaluate the cumulative effects of all water crossings; (c) the district engineer must issue a verification that applies to all water crossings, including the non-PCN waters; and (d) the applicant cannot consider the non-PCN waters approved, and cannot begin construction through the non-PCN waters, until the Corps issues the verification.

2. Comments on NWP 48 for Shellfish Mariculture Activities and NWP A and B for Seaweed and Finfish Mariculture Activities

Due to the breadth of socio-economic, public health, and environmental problems associated with mariculture, the Corps should eliminate NWP 48 and not approve NWP A or B. The effects of this practice in many areas are still largely unknown, especially when long-term cumulative impacts are considered. Mariculture activities can harm sensitive waters and habitats, as well as economic, aesthetic, and recreational resources. If the Corps allows the continued use of NWP 48 and NWP A or B, it should improve its review of PCNs and require documentation of compliance with specific design and operational standards.

a. Mariculture Activities Can Harm Sensitive Waters and Habitats.

Mariculture activities can impact Designated Critical Resource Waters (DCRWs). DCRWs are environmentally sensitive, highly valuable, and especially vulnerable to the effects that finfish mariculture activities are known to produce. Mariculture activities can also negatively impact corals, seagrass beds, mangroves, critical habitat, and migration pathways. These ecosystems are particularly sensitive to the known adverse environmental effects of finfish mariculture, including its contributions of nutrients and sediments (Price and Morris 2013). Because these areas are nutrient sensitive, the "siting of fish farms near these habitats may have long-term consequences" (Price and Morris 2013). Experts recommend siting mariculture activities at least 200 meters away from all corals, seagrass beds, mangroves, critical habitat, and migration pathways (Price and Morris 2013). These sensitive areas are ecologically significant—playing crucial roles in providing specialized species habitat, promoting biodiversity, controlling erosion (especially during tropical storms), maintaining water clarity, and performing other vital functions.

Florida, where an experimental finfish farm is currently proposed, is home to the third-largest barrier reef in the world and is the only state in the continental U.S. to have extensive coral reef formations near its coasts (Florida Department of Environmental Protection 2020). Not only do aquatic species and local residents enjoy these reefs, millions of tourists visit Florida every year to enjoy them as well. NOAA predicts that coral reef activities in south Florida make \$3.4 billion every year in sales and income for residents, as well as 36,000 jobs. Unfortunately, Florida's

corals have been at a heightened risk since 2014 because of extensive mortality due to Stony Coral Tissue Loss Disease. Thus, these corals require enhanced protection against other known stressors, including the eutrophication and sedimentation that will occur if finfish mariculture is permitted to take place nearby (Price and Morris 2013).

Florida's seagrasses are a significant part of the ecosystem as they provide food and habitat to countless species, including the manatees and sea turtles that are beloved by Florida residents and tourists alike. Seagrass also acts as a home for up to 90% of Florida's recreationally and commercially important fish and shellfish at some point in their lives (FWC 2019). In 2014 alone, Florida's commercial fishing industry made \$140 million and recreational fishing spending brought in \$6 billion (University of Florida 2020). Seagrass beds have suffered significant declines in the last 50 years, largely due to phytoplankton blooms caused by nutrient pollution (FWC 2019). Seagrass needs light to survive, so reduced water quality due to sedimentation and nutrient enrichment from finfish mariculture will likely damage or kill Florida's already threatened seagrass beds (Price and Morris 2013).

Like seagrasses and coral, mangroves provide habitat to a wide array of Florida's recreationally and commercially important species, as well as attract tourists. In addition, mangroves provide critical protection to Florida's coasts. They not only cycle and filter nutrients and chemicals, but also provide physical protection against erosion and absorb storm surge impacts. During Hurricane Irma in 2017, mangroves reduced 25% of damage—preventing \$1.5 billion in direct flood damage and protecting over 500,000 people (Narayan et al. 2019). Florida mangroves have experienced massive acreage losses in recent years, largely due to human activities and the effects of climate change (Narayan et al. 2019). The nutrient enrichment and other reductions in water quality due to finfish mariculture will further threaten this valuable and vulnerable ecosystem (Price and Morris 2013).

Mariculture activities are well-known to release a variety of harmful substances into the surrounding waters, including fish waste, excess fish feed, antibiotics, antifoulants, disinfectants, and other toxic chemicals. These substances increase water turbidity and nutrient levels, decrease dissolved oxygen levels, and have toxic effects on the water column and sediments in areas surrounding mariculture sites (Price and Morris 2013). Fish feed and antifoulants often contain heavy metals, which is toxic to marine organisms and binds to sediments for long periods of time, thus accumulating in benthic habitats below the mariculture site. The chemicals released into surrounding waters during finfish activities can persist in these waters and have long-term adverse effects on nearby marine organisms (Price and Morris 2013).

It is widely agreed by experts that the most effective way to avoid these devastating environmental impacts is to site mariculture activities in deep, well-flushed areas (Gentry et al. 2017). Siting in deep, open waters results in a dispersal of the released matter and chemicals into far broader areas (Price and Morris 2013). Mariculture activities increase nitrogen and phosphorous levels in nearby waters, resulting in increased phytoplankton and algae. These heightened nutrient levels can contribute to HABs and eutrophication of coastal waters (Price and Morris 2013). Florida, and many other areas where mariculture activities are or could be sited already suffer widespread and long-lasting HABs that devastate the coastal environment, cause massive die-offs of species, and release airborne toxins that put public health at risk.

b. Mariculture Activities Harm Economic, Aesthetic, and Recreational Resources.

Finfish and shellfish mariculture can have adverse effects on recreational activities by closing off areas of navigable waters that would otherwise be used for boating, fishing, and other activities. Mariculture activities can interfere with commercial and recreational fishing activities by excluding fishers from the waters where the mariculture activities occur. Additionally, if escaped finfish outcompete wild finfish, these mariculture activities also reduce recreational and commercial opportunities for fishers who seek to catch wild finfish and crustaceans. Commercial and recreational fishing is a multibillion-dollar industry in Florida and draws enormous numbers of tourists each year, who then pump money into many other facets of Florida's economy. Engaging in water-related recreational activities is of the utmost value to many Floridians, as well as to tourists. Tourism is a major industry in Florida and reducing access to certain waters will harm that industry. According to the Florida Chamber of Commerce, tourism brought over \$6 billion in state taxes in 2017 alone and is "key" to Florida's economic competitiveness (Wilson 2018).

Mariculture activities in coastal waters are also likely to adversely affect the "visual, acoustic, and olfactory characteristics" of coastal areas (NWP B Decision Document). Mariculture operators often dump trash and unwanted equipment into the water, which washes up on shorelines and decreases the value of the area for both residents and tourists (Hawkins et al. 2020). Waterfront property owners will suffer aesthetic impacts and reduced property values.

c. The Corps Should Improve Its Review of PCNs and Require Documentation of Compliance with Specific Design and Operational Standards.

Should the Corps approve the use of NWP B, it must improve its review of PCNs to be more rigorous. The PCN process is a critical tool, allowing district engineers to take into account the activity-specific impacts of the proposed activity as well as the effects those activities will have on the specific waters that will be affected by the NWP activity. 85 FR 57314. Because of the scope and magnitude of impacts that NWP B activities are expected to have on the environment, the controlling influence that proper siting and mariculture procedures have these environmental impacts, and the relative novelty of this practice (Montgomery 2019)—PCNs for this NWP should require a higher degree of detail. Additionally, expedited authorization for this NWP should not be available.

When evaluating the potential impacts of this proposed NWP, the Corps states that finfish mariculture may have "positive, neutral, or negative effects on aquatic resource functions and services," depending upon "*how* those activities are operated" (NWP B Decision Document) (emphasis added). The Corps should require districts to add a regional condition requiring applicants to ensure their projects will comply with specific standards for the design of structures and equipment, as well as operational procedures that will be set in place in order to best avoid and mitigate the inevitable harms of finfish mariculture on surrounding waters and species. Detailed documentation of these standards should be required as part of an applicant's PCN for all NWP B activities.

After submitting a PCN, prospective permittees typically may begin work either: upon written notification of approval by the district engineer *or* 45 days after the district engineer receives the PCN, even if the permittee has not received written notification from the district engineer. This preemptive permission is problematic, particularly in the scope of proposed NWP B and its associated risks. When providing written notification in response to PCNs, district engineers are not only authorizing the activity to proceed, but also imposing any special conditions necessary for the activity to comply with the "no more than minimal individual and cumulative adverse environmental effects" requirement. 85 F.R. 57315. It is highly likely that NWP B activities will require special conditions due to the multitude of potential adverse effects.

NWP B activities should not be permitted until written verification is provided by a district engineer, similarly to General Condition 18's requirements for activities that may affect ESA-listed species. Although the Corps is proposing to change this requirement this year (with no valid explanation as to why, other than conformity with the other NWPs), NWPs 21 and 49 historically required permittees to wait for written verification prior to beginning work. This required applicants to clearly demonstrate that their project's impacts to the environment would be minimal and allowed district engineers to make careful, case-specific minimal impact determinations. In challenges to the lawfulness of NWP 21 issuances, courts have found the Corps written-verification requirement for this NWP to assist in ensuring environmental protections for projects authorized by the NWP, thereby rendering the NWP's issuance lawful and not arbitrary and capricious. *Ohio Valley Envtl. Coalition v. Hurst*, 604 F. Supp. 2d 860 (S.D.W. Va. 2009). This requirement ensures the Corps has adequate time to review the extensive information that should be included in PCNs for higher-risk NWPs, as well as time to coordinate with other agencies as necessary and accurately determine whether the Corps must exercise discretionary authority to ensure no more than minimal effects.

Relevant scientific studies, as well as the Corps itself, emphasize site selection as a crucial means to reduce and mitigate the adverse effects of activities authorized by this NWP on sensitive and valuable watersheds (Corps NWP B Decision Document 2020). Because the Jacksonville District is home to waters and habitats that are both high-value and vulnerable, it is important to restrict this NWP beyond its general national limitations. The Jacksonville District should add a regional condition specifying that NWP B activities may only take place in open waters of a certain depth that are an adequate distance away from DCRWs, corals, seagrass beds, mangroves, critical habitat, and migration pathways.

d. NWP B Permittees Should Be Required to Conform to Standards to Reduce the Potential for Fish Escapes.

One of the greatest threats that NWP B activities pose to marine ecosystems is the potential for finfish escapes. When an escape occurs, the cultivated finfish compete with wild fish stocks for food and space, often wild finfish habitats. Finfish escapes have been shown to have adverse effects on mortality and growth of wild individuals of finfish. These escapes occur routinely during finfish mariculture operations, with some more severe than others. In August 2017, an aquaculture facility in Washington State spilled at least 240,000 cultivated non-native fish into Puget Sound (Lee 2018). The farmed fish took over the nearby waters and continued to be documented even months later and hundreds of miles from the initial escape site (Mapes 2017).

Escaped cultivated fish often interbreed with wild fish stock, producing hybrids that homogenize the genetic compositions of local populations and resulting in long-term declines in fitness and productivity of wild finfish populations (Atalah and Sanchez-Jerez 2020). Wild fish stock experience a reduced ability to adapt, reproduce, and survive in changing environmental conditions. This risk is exacerbated because cultivated finfish often have low genetic diversity due to long-term artificial selection.

When mariculture fish are not native to the area in which they are being cultivated and held, escapes are especially problematic (Atalah and Sanchez-Jerez 2020). These escapes allow the cultivated fish to spread pathogens and parasites to wild species, causing outbreaks of disease and further movement of the pathogens and parasites. According to the Corps' NWP B Decision Document, cultivating finfish species in ocean waters outside their native ecoregions is a "high risk activity that could have substantial adverse ecological and socio-economic outcomes" (NWP B Decision Document 2020).

Finfish escapes result from operational or technical failures, structural failures, or mishaps during transfers of fish. The most common cause of an escape is structural failures—which occur more often as a result of strong currents and winds during heavy storms. Storms damage mariculture structures and strain the mooring structures that hold the cages and pens in place (Jensen et al. 2010), which increases a heightened potential for fish escapes. Even a single adverse weather event could have devastating effects on the surrounding ecosystem by allowing the release of cultivated fish. Because the Jacksonville District is particularly susceptible to hurricanes, a regional condition should be added to require a higher degree of structural integrity when designing mariculture structures that can better withstand heavy storms. The risk of escapes can be reduced by using materials that are more effective at withstanding damage.

A universal technical standard should be promulgated to specify requirements for the design of feed barges, floaters, net cages, and mooring systems necessary to cope with environmental forces (Jensen et al. 2010). Norway is an example of a government that uses a highly detailed technical standard for mariculture equipment and structures, and this standard has been described as incredibly useful to prevent escapes at an industry-wide scale. Norwegian government officials state this standard was enacted through legislation because "voluntary standards are unlikely to be effective" (Jensen et al. 2010).

Regional conditions should require permittees to implement a standard containment management system, including but not limited to: specific processes to prevent escape, a mandatory escape reporting procedure, and a plan for recapturing escaped finfish. Applicants should be required to include a manual describing their plans for these systems in all PCNs for this NWP.

Processes to prevent escape can include training and educating employees how best to avoid operational errors and mitigate any equipment failures. Operators should also enact strict maintenance and upkeep routines and checks. Investigators predict the massive fish spill in Washington discussed above was caused by the facility's failure to adequately clean the nets containing the fish, leading to the net pen's collapse (Lee 2018).

Operators should also be required to set specific emergency procedures to be used in the event of spills, fish escapes, and structural failures. Escape-reporting procedures are beneficial because

efforts to recapture escapees can be made, and the causes of escapes can be tracked and evaluated. Many regions that presently have finfish mariculture industries require escape events to be reported promptly, with non-reporters subjected to a fine (Naylor et al. 2015). Some regions require mariculture operators to mark fish so they can be identified in the event of an escape. One region requires that within 30 days of a reportable fish escape, the facility's containment management system will be inspected for compliance with the relevant standards.

The Corps should require escape events to be reported and should maintain a database so these escapes can be monitored and better prevented in the future. The adverse effects of fish escapes are exacerbated when repeated fish escapes have occurred in an area, so it is important to ensure the Corps is aware of repeat offenders.

e. NWP B Permittees Should Be Required to Conform to Standards to Reduce Additional Harms to the Ecosystem.

Structural and design requirements are also necessary in order to mitigate harm to the ecosystem, including marine mammals and other wildlife. Oftentimes the structural habitats and excess feeds associated with mariculture activities will attract marine mammals, sea turtles, and wild fish, including sharks, as refuge areas and supplemental food sources.

When wild species are able to bite through net pens and eat the cultivated fish, it alters the food webs of marine and estuarine waters from their natural state. The predation of mariculture fish through the net pens can also cause injuries and stress to the cultivated fish, which makes them more susceptible to disease. Additionally, when predators identify a mariculture site as a food source and bite the net open, the cultivated fish are free to escape, leading to the array of fishescape issues listed above. A regional condition should be added to require the use of stronger nets that can withstand bites from predatory species.

Further, marine mammals, sea turtles, and birds often become fatally entangled in mariculture equipment, including flexible mooring, fish pens, and connection lines. This risk can be reduced by requiring that mariculture activities only take place outside of marine mammal migratory routes, keeping lines taut, using predator exclusion nets, and using rigid net materials.

According to the Corps' NWP B decision document, operators utilizing this NWP may use acoustic deterrent and harassment devices. The use of these devices contributes to noise pollution in oceans and harms marine organisms. The use of these devices should be limited, and should have to be disclosed in PCNs so effects can be considered.

The enormous amount of fish feed that will be required in finfish mariculture facilities has the potential to cause a multitude of adverse effects on the ecosystem. Many mariculture facilities rely on genetically engineered ingredients like corn, soy, and algae which do not exist naturally in a fish's diet. Additionally, toxic heavy metals like cadmium and zinc are often present in finfish feeds. Feed formulation and feeding efficiency should be appropriately standardized and managed in order to lessen the adverse impacts environmental impacts caused by finfish mariculture activities. By decreasing the nutrient loading at mariculture facilities, impacts on water quality, benthic habitats, and other facets of the environment can be lessened. Carefully developed feed formulations are necessary (Lee 2018).

Antibiotics, herbicides, pesticides, and other veterinary drugs are used frequently and in mass amounts in finfish mariculture facilities in order to prevent and treat the inescapable disease outbreaks that occur. However, these drugs have no way of staying confined to the facility—drug residues are discharged and absorbed into the surrounding marine ecosystem. These drugs contaminate nearby water and wildlife and cause substantial, wide-spread harm. A finfish mariculture facility's release of wastewater including pharmaceuticals, heavy metals, and excess nutrients from feed and fish waste is an unavoidable part of this practice. The mass amounts of confined fish in finfish mariculture facilities may also become breeding grounds for parasites and disease, which spread to surrounding organisms. Because of this, regional standards should be set in place to limit these toxins.

3. Comments on other NWPs that result in more than minimal individual and cumulative adverse impacts

- NWP 3 (Maintenance) This NWP allows for stream channel modification, temporary structures, fills, and work, including the use of temporary mats necessary to conduct maintenance activities, all without needing a PCN, which as discussed above is problematic and may result in the Corps failing to undertake project-specific consultation where necessary, or for the cumulative adverse impacts of the NWP to be more than minimal without the Corps tracking such impacts. This NWP poses a risk of significant direct and cumulative environmental harm, and such activities should not be authorized by a NWP, but instead require an individual permit.
- NWP 8 (Oil and Gas Structures on the Outer Continental Shelf) The Corps must consult with NMFS over impacts to marine mammals, especially from noise impacts associated with construction activities. Anthropogenic noise pollution can mask marine mammal communications at almost all frequencies these mammals use.¹⁶⁹ "Masking" is a "reduction in an animal's ability to detect relevant sounds in the presence of other sounds."¹⁷⁰ These impacts must be analyzed in an EIS and through ESA consultation.
- NWP 13 (Bank Stabilization) This NWP poses a huge risk of sediment-related impacts. Commenters are concerned that NWP 13 has the potential to be misused, leading to sediment loading well in excess of the intended amounts, and which would have more than minimal impacts to the environment. It remains completely unclear how the Corps is ensuring that the quantity of dredged or fill material discharged into waters of the United States does not exceed one cubic yard per running foot below the plane of the ordinary high water mark or the high tide line," or how violations would be enforced. This limit suggests that the Corps is aware that sediment from activities undertaken

 ¹⁶⁹ See, e.g., Hildebrand, J.A., Impacts of Anthropogenic Sound, in MARINE MAMMAL
 RESEARCH: CONSERVATION BEYOND CRISIS (Reynolds, J.E. III et al., eds. 2006); Weilgart, L.,
 2007, The Impacts of Anthropogenic Ocean Noise on Cetaceans and Implications for
 Management, 85 CANADIAN J. ZOOLOGY 1091-1116 (2007).

¹⁷⁰ OCEAN NOISE AND MARINE MAMMALS, NAT'L RES. COUNCIL at 96 (2003), *available at* http://www.nap.edu/openbook.php?record_id=10564&page=R1.

pursuant to NWP 13 pose a risk of environmental harm, yet it does not appear that any specific process is in place to ensure that excessive sediment does not continue to cause adverse environmental impacts to our Nation's waters in violation of 404(e). The Corps must develop a means for measuring, monitoring and enforcing sediment limits in order to ensure that this NWP complies with the CWA.

Furthermore, NWP 13 poses a risk of such sedimentation going unrecorded and overlooked when considering the cumulative impacts of the NWP program. This is due to the fact that PCNs are not required for many actions undertaken pursuant to NWP 13. This is no small issue. For example, between 1990 and 2002, USACE authorized almost 82,000 linear feet of new bank stabilization structures on the Yellowstone River. The cumulative impacts of activities such as these must be considered in an EIS and through ESA consultation to ensure that NWP 13 activities are not having more than minimal cumulative environmental impacts and will not jeopardize listed species.

• NWP 14 (Linear Transportation Projects) - Linear transportation projects (i.e. roads) can have devastating impacts on habitats and the species that rely on them. Roads affect wildlife populations in numerous ways, from habitat loss and fragmentation, to barriers to animal movement, wildlife mortality and runoff from impervious surfaces. Indeed, the impacts of roads on wildlife populations is a significant and growing problem worldwide, which has been the focus of many studies and caused increasing concern for transportation and natural resource management agencies.

Habitat fragmentation affects numerous ecological process across multiple spatial and temporal scales, including changes in biotic regimes, shifts in habitat use, altered population dynamics, and changes in species compositions. Patch size has been identified as a major feature influencing plant and small mammal communities, and some wildlife populations are vulnerable to collapse in fragmented habitats. Reduced landscape connectivity and limited movements due to roads may result in higher wildlife mortality, lower reproduction rates, and ultimately smaller populations and overall lower population viability.

Roads and other impervious surfaces also result in "changes in runoff and flow [that] have been shown to adversely affect aquatic habitat and species, including endangered and threatened species."¹⁷¹ These harmful effects have underscored the need to maintain and restore essential movements of wildlife across roads to maintain population movements and genetic interchange.

These impacts must be assessed in an EIS and through programmatic ESA consultation on the NWP program to ensure that NWP 14 activities are not having more than minimal cumulative environmental impacts and will not jeopardize listed species. Further, this NWP poses a risk of significant direct and cumulative environmental harm, and such activities (particularly roads or other linear projects longer than a few hundred feet) should not be authorized by a NWP, but instead require an individual permit.

¹⁷¹ 2014 NMFS BiOp at 301.

• NWPs 18 (Minor Discharges) and 19 (Minor Dredging) - Commenters are concerned that these NWPs provide an opportunity for permittees to potentially "game the system" by claiming that dredging activities or discharges will be minor, even if they turn out not to be. While these NWPs have specific limitations (i.e. NWP 18 - 25 cubic yard limit for discharged material, loss of more than 1/10-acre) it remains unclear how the Corps can ensure these are being followed, especially since PCNs are not always required for these NWPs. This concern would be exacerbated should the Corps increase the cubic yard limit for NWP 19 from 25 to 50 cubic yards as proposed.

Since these NWPs pose a risk of significant direct and cumulative environmental harm from sediment and other pollutants if the activities end up being more than "minor," such activities should not be authorized by a NWP, but instead require an individual permit. At the very least, a PCN should be required so that the Corps can confirm that the activity does not have a likelihood of causing discharges above the specific limits provided in the rule.

• NWP 21 (Surface Coal Mining Activities) – NWP 21 activities have the potential for significant direct and cumulative environmental impacts, including impacts to listed species, and should not be authorized through a NWP. Surface coal mining has had, and will continue to have, significant impacts on the environment.¹⁷² Coal mining results in detrimental changes in the pH and conductivity of waterways, can lead to elevated selenium and its derivatives which have negative effects on freshwater dependent species,¹⁷³ and to increased downstream sedimentation that fills in the spaces between rocks that many species need to fulfill their life history requirements, including freshwater mussels, snails, darters and other benthic fishes, crayfishes, and aquatic salamanders. The impacts to aquatic dependent species from increased siltation and sedimentation are numerous, including both direct harm to species via gill clogging and

¹⁷² Some estimates suggest that NWP 21 activities have eliminated more than 1,200 miles of streams in the past. *See* Congressional Research Service, Report on the ACOE NWP Program (Jan. 30, 2012) (attached hereto).

¹⁷³ Debruyn, A. M., & Chapman, P. M. (2007). Selenium toxicity to invertebrates: will proposed thresholds for toxicity to fish and birds also protect their prey?. Environmental science & technology, 41(5), 1766-1770; Adam-Guillermin, C., Fournier, E., Floriani, M., Camilleri, V., Massabuau, J. C., & Garnier-Laplace, J. (2009). Biodynamics, subcellular partitioning, and ultrastructural effects of organic selenium in a freshwater bivalve. Environmental science & technology, 43(6), 2112-2117; Orr, P. L., Guiguer, K. R., & Russel, C. K. (2006). Food chain transfer of selenium in lentic and lotic habitats of a western Canadian watershed. Ecotoxicology and environmental safety, 63(2), 175-188; Conley, J. M., Funk, D. H., Cariello, N. J., & Buchwalter, D. B. (2011). Food rationing affects dietary selenium bioaccumulation and life cycle performance in the mayfly Centroptilum triangulifer. Ecotoxicology, 20(8), 1840-1851; Lemly, D. A. (2009). Aquatic hazard of selenium pollution from mountaintop removal coal mining. Informally published manuscript, Biology, Wake Forest University, Winston-Salem, North Carolina; Young, T. F., Finley, K., Adams, W. J., Besser, J., Hopkins, W. D., Jolley, D., ... & Unrine, J. (2010). 3 What You Need to Know about Selenium. Ecological assessment of selenium in the aquatic environment, 7.

injury, smothering, reduced visibility, and adverse changes to feeding, breeding, and sheltering substrates.¹⁷⁴

The net results of the impacts of coal mining have been significant water pollution, loss of natural areas, and disproportionate reductions in biological diversity in mined places. In fact, water quality degradation from surface coal mining has contributed to the need to list several species, such as the diamond darter in West Virginia,¹⁷⁵ the addition of the Kentucky arrow darter to the candidate list,¹⁷⁶ and the listing of the Big Sandy and Guyandotte River crayfishes.¹⁷⁷

¹⁷⁴ Sutherland, A. B., Maki, J., & Vaughan, V. (2008). Effects of suspended sediment on wholebody cortisol stress response of two southern Appalachian minnows, Erimonax monachus and Cyprinella galactura. Copeia, 2008(1), 234-244; U.S. Fish and Wildlife Service (FWS). Determination of endangered status for the Rayed Bean and Snuffbox mussels throughout their ranges, Final Rule. 77 Fed. Reg. 08,632 (2012).; U.S. Fish and Wildlife Service (FWS). Cumberland Arrow Darter Candidate Species Assessment Form (2013). 31 pp.; U.S. Fish and Wildlife Service (FWS). Endangered Species Status for the Big Sandy Crayfish and the Guyandotte River Crayfish, Proposed Rule. 80 Fed. Reg. 18,710 (2015); Wheeler, B.A., E. Prosen, A. Mathis, and R.F. Wilkinson. 2003. Population declines of a long-lived salamander: A 20+ year study of hellbenders, *Cryptobranchus alleganiensis* Biological Conservation 109:151-156.

¹⁷⁵ U.S. Fish and Wildlife Service (FWS). (2013). Endangered species status for diamond darter, final rule. 78 Fed. Reg. 45,079 ("While the overall percentage of the entire Elk River watershed subjected to mining activities may be small, watersheds of some Elk River tributaries, such as Leatherwood Creek, are highly dominated by mining activity and include mining permits encompassing 81 to 100 percent of the subwatersheds (WVDEP 2011b, p. 37). Mining is likely a significant factor affecting the water quality of streams, such as Leatherwood Creek, that are principle tributaries to the Elk River. The effects of these mining activities conducted both within the Elk River mainstem and in Elk River tributaries, coupled with the effects from other activities described in Factor A, are continuing threats to the diamond darter.").

¹⁷⁶ U.S. Fish and Wildlife Service FWS. (2010). Candidate Notice of Review. 75 Fed. Reg. 69,224 ("The subspecies' habitat and range have been severely degraded and limited by water pollution from surface coal mining and gas-exploration activities; removal of riparian vegetation; stream channelization; increased siltation associated with poor mining, logging, and agricultural practices; and deforestation of watersheds. The threats are high in magnitude because they are widespread across the subspecies' range. In addition, the magnitude (severity or intensity) of these threats, especially impacts from mining and gas- exploration activities, is high because these activities have the potential to alter stream water quality permanently throughout the range by contributing sediment, dissolved metals, and other solids to streams supporting Kentucky arrow darters, resulting in direct mortality or reduced reproductive capacity. The threats are imminent because the effects are manifested immediately and will continue for the foreseeable future.").

¹⁷⁷ See U.S. Fish and Wildlife Service (2016) Threatened species status for the Big Sandy crayfish and Endangered species status for the Guyandotte River Crayfishes, final rule. 81 Fed. Reg. 20,450 ("The common physical changes to local waterways associated with coal mining include increased erosion and sedimentation, changes in flow, and in many cases the complete Importantly, NWP 21 allows for the total loss of headwater streams, which serve an important ecological function, as they "trap floodwaters, recharge groundwater, remove pollution, provide fish and wildlife habitat, and sustain the health of downstream rivers, lakes, and bays."¹⁷⁸

Furthermore, the existing regulatory framework has proven insufficient to prevent environmental harm from NWP 21 activities, and the limitation in NWP 21 regarding authorization under Title V of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) is insufficient to ensure that projects using NWP 21 will meet the requirements of CWA Section 404(e). Since most surface coal mining activities do not undergo ESA Section 7 consultation—due to an unlawful 1996 Formal Section 7 Biological Opinion and Conference Report on Surface Coal Mining and Reclamation Operations Under the Surface Mining Control and Reclamation Act of 1977—the Corps cannot rely on the SMCRA process to fulfill its ESA or CWA duties.

As discussed above, the Corps has exacerbated the potential for adverse impacts from NWP 21 by proposing to remove the 300-foot loss limit for stream beds. Commenters are adamantly opposed to this change. The 300 foot limit has proven to be inadequate to prevent excessive harm to waterways and wildlife from surface coal mining activities, and the appropriate response would be to further limit the use of NWP 21, not to broaden its use and remove threshold limits that are necessary to moderate harm. Allowing more than 300 feet of stream bed loss from NWP activities poses significant harm to listed species. This proposal must be subject to ESA Section 7 consultation, and due to the significant environmental harm that would ensue, this proposed change should be rejected.

burial of headwater streams"); see also U.S. Fish and Wildlife Service. (2015). Endangered species status for the Big Sandy and Guyandotte River Crayfishes, proposed rule. 80 Fed. Reg. 18,726 ("Coal mining—The past and ongoing effects of coal mining in the Appalachian Basin are well documented, and both underground and surface mines are reported to degrade water quality and stream habitats. Notable water quality changes associated with coal mining in this region include increased concentrations of sulfate, calcium, and other ions (measured collectively by a water's electrical conductivity); increased concentrations of iron, magnesium, manganese, and other metals; and increased alkalinity and pH, depending on the local geology. The common physical changes to local waterways associated with coal mining include increased erosion and sedimentation, changes in flow, and in many cases the complete burial of headwater streams. These mining-related effects are commonly noted in the streams and rivers within the ranges of the Big Sandy and the Guyandotte River crayfishes. The response of aquatic species to coal mining-induced degradation are also well documented, commonly observed as a shift in a stream's macroinvertebrate (e.g., insect larva or nymphs, aquatic worms, snails, clams, crayfish) or fish community structure and resultant loss of sensitive taxa and an increase in tolerant taxa. As mentioned above, coal mining can cause a variety of changes to water chemistry and physical habitat; therefore, it is often difficult to attribute the observed effects to a single factor. It is likely that the observed shifts in community structure (including the extirpation of some species) are, in many cases, a result of a combination of factors." (internal references omitted)).

¹⁷⁸ 80 Fed. Reg. at 44,439.

Commenters are also adamantly opposed to removing the need for PCN verification and allowing NWP 21 activities to proceed after 45 days if the Corps has not responded. As set forth above, the Corps cannot ensure that impacts will be only minimal if it has only 45 days to review all PCNs, and this proposal would therefore allow activities to proceed even if they will violate CWA 404(e). Once again, this proposal unlawfully puts the interests of the regulated public (i.e. predictability) above the Corps' statutory mandate to protect the environment. The Corps has requested an explanation as to why discharges associated with surface coal mining activities should be treated differently than other NWPs. As discussed above, coal mining often affects sensitive headwater streams and implicates unique sources of harm, such as changes in pH and conductivity of waterways, as well as elevated selenium and its derivatives which have negative effects on freshwater dependent species. It also leads to increased downstream sedimentation that fills in the spaces between rocks that many species need to fulfill their life history requirements, including freshwater mussels, snails, darters and other benthic fishes, crayfishes, and aquatic salamanders. Coal mining is therefore clearly different from many other NWPauthorized activities and must have stricter controls.

In sum, the environmental impacts of NWP 21 must be assessed in an EIS and through programmatic ESA consultation to ensure that NWP 21 activities will not have more than minimal cumulative environmental impacts and will not jeopardize listed species. Since these NWP poses a risk of significant direct and cumulative environmental harm, such activities should not be authorized by a NWP, but instead require an individual permit.

- NWP 27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities) The Corps must assess the potential for activities undertaken pursuant to NWP 27 to affect listed species. NWP 27 authorizes "any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities)," and while Commenters would likely be in favor of returning such areas to natural conditions, the impacts that such activities may have on downstream communities must be analyzed through programmatic ESA Section 7 consultation.
- NWP 29 (Residential Developments) NWP 29 covers residential development, which includes golf courses. These activities can have devastating impacts on the environment through habitat loss and fragmentation, nutrient loading that causes algal blooms, and the use of pesticides/herbicides. These impacts must be assessed in an EIS and through programmatic ESA consultation to ensure that NWP 29 activities will not have more than minimal cumulative environmental impacts and will not jeopardize listed species. Since NWP 29 poses a risk of significant direct and cumulative environmental harm, such activities should not be authorized by a NWP, but instead require an individual permit.
- NWP 39 (Commercial and Institutional Developments) Commercial developments have the potential to cause significant environmental harm through habitat loss and fragmentation, as well as surface and groundwater contamination. These impacts must be assessed in an EIS and through programmatic ESA consultation to ensure that NWP 39

activities will not have more than minimal cumulative environmental impacts and will not jeopardize listed species.

The Corps has proposed removing the 300-linear foot streambed loss limit for this NWP, which as discussed above will lead to violations of CWA 404(e), and should be rejected. As with several of the NWPs, the Corps will now rely exclusively on the 1/2-acre limit of wetland/waterway loss for NWP 39 activities; however, the Corps must consider the cumulative impacts from the many NWP 39 activities that take place each year. Since NWP 39 poses a risk of significant direct and cumulative environmental harm, such activities should not be authorized by a NWP, but instead require an individual permit.

- NWP 40 (Agricultural Activities) As with several other NWPs, NWP 40 only allows 1/2 acre of wetland/waterway loss; however, the Corps must consider the cumulative impacts from the hundreds of NWP 40 activities that take place each year. These include activities that introduce not only sediment, but fertilizers and pesticides into our Nation's waters. Since NWP 40 poses a risk of significant direct and cumulative environmental harm, such activities should not be authorized by a NWP, but instead require an individual permit.
- NWP 44 (Mining Activities) As the Corps previously noted, mining activities authorized by this NWP often involve impacts to open waters, such as the mining of sand and gravel from large rivers. As with other NWPs, NWP 44 provides a 1/2-acre limit for losses of waters of the United States. The Corps has argued (for the 2017 revision) that a total (vegetated non-tidal wetlands and open waters) 1/2-acre limit "will provide further assurance that this NWP will only authorize activities with no more than minimal individual and cumulative adverse environmental effects." No further information or support has been provided for the new proposal. Again, the Corps must consider the cumulative impacts from the dozens of NWP 44 activities that take place each year, as well as other NWP activities in those same waters. Since NWP 44 poses a risk of significant direct and cumulative environmental harm, such activities should not be authorized by a NWP, but instead require an individual permit.
- NWP 48 (Commercial Shellfish Aquaculture [Mariculture] Activities) As set forth above, this NWP allows activities that pose a significant risk of cumulative impacts to listed species. Moreover, the Corps has not conducted a sufficient analysis of the cumulative impacts of NWP 48 activities, and the analysis that has taken place is indicative of the Corps failure to properly ensure that NWP activities will have only minimal cumulative adverse effect on the environment as required under the CWA.¹⁷⁹

The Corps has failed to provide adequate documentary support or substantive evidence for its conclusions that permit terms and conditions would be sufficient to ensure that environmental effects would be minimal and not significant. Nor has the Corps imposed monitoring requirements that would ensure that NWP terms and conditions, including

¹⁷⁹ 33 U.S.C. § 1344(e)(1); 33 C.F.R. § 323.2(g).

those resulting from subsequent exercises of discretionary authority, would be adequately policed.

The Corps has therefore failed to properly evaluate the actual cumulative impacts of NWP 48 activities, due to the unreasonably low and inaccurate assessment of the amount of usage.¹⁸⁰ NWP 48 Authorized activities are resulting in more than minimal and significant adverse environmental effects and contributing to significant degradation of waters of the United States by effects on water quality, effects arising from the introduction of plastics, and effects on eelgrass, salmon, birds, herring, and flat fish. The cumulative magnitude of these effects is increased by the greatly increased number of authorized activities.

The Corps' failure to properly consider these impacts violates the CWA and the ESA. These impacts must be considered in an EIS and through formal programmatic ESA consultation. Since NWP 48 poses a risk of significant direct and cumulative environmental harm, such activities should not be authorized by a NWP, but instead require an individual permit.

- NWP 49 Coal Remining Activities. The Corps has proposed removing the provision requiring the permittee to receive a written authorization from the Corps before commencing with NWP 49 activities, to be consistent with the other NWPs requiring PCNs and allowing default authorizations to occur if the Corps district does not respond to the PCN within 45 days of receipt of a complete PCN. As set forth above, this is a terrible idea that is inconsistent with the CWA Section 404 requirements.
- 50 (Underground Coal Mining Activities) As with surface coal mining, underground mining of coal has had, and will continue to have, significant impacts on the environment. The Corps has proposed removing the 300-foot streambed loss limit and the requirement for written verification for this NWP. For the reasons set forth above, these proposals must be rejected. Since NWP 50 poses a risk of significant direct and cumulative environmental harm, such activities should not be authorized by a NWP, but instead require an individual permit.
- NWP 54 (Living Shorelines) NWP 54 provides for the use of "living shorelines" for bank stabilization. While this method certainly could be an improvement over hard stabilization, it does pose certain risks to existing shoreline habitats. It also has the potential to encourage Port Authorities, Applicants and the Corps itself to do more environmentally destructive dredging than necessary; to dispose of waste materials in nearshore waters; and to allow for real estate development sites in disaster-prone in-water locations, by allowing dredge spoil and other waste materials and fill to be used to construct "living shorelines" without requiring these proposals to undergo the scrutiny of individual permit review. This NWP thus opens the door to extensive alteration and destruction of irreplaceable nearshore habitats whose preservation is essential for sustaining fisheries, endangered species, marine mammals and other living marine resources, as well as prevent

¹⁸⁰ The Corps must predict cumulative effects by estimating "the number of individual discharge activities likely to be regulated." 40 C.F.R. §§ 230.7(b), 230.11.

public scrutiny of, and public comment on, "living shoreline" proposals for altering and potentially destroying nearshore habitats.

CWA Sec. 404(e) allows the issuance of general permits **only** for activities that are "similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effects on the environment." NWP 54 violates Sec. 404(e) by giving a blanket authorization to a broad array of activities that on their face are not similar in nature, in many different types of waters.

• Proposed NWP C (Electric Utility Line and Telecommunications Activities) -Commenters are very concerned about the impacts from electric utility lines on migratory avian populations from collisions with power lines. Such collisions are not only common, they jeopardize listed species, such as whooping cranes. Indeed, power line collisions are the greatest source of mortality for the iconic and critically endangered whooping crane. It is therefore shocking that the Corps has failed entirely to analyze the potential harm to bird populations from its permitting of utility lines pursuant to this proposed NWP.

The Corps has invited comments on "national best management practices that could be added as terms to any of these NWPs to help ensure that a particular type of utility line results in no more than minimal individual and cumulative adverse environmental effects." Commenters submit that this is precisely the point of the programmatic ESA consultation process the Corps refuses to initiate, which is intended to allow the Services to work with the Corps to establish national best management practices to ensure against jeopardy. Programmatic consultation is required on this proposed NWP to ensure that authorized activities will not jeopardize species, and so that the Corps and the Services can develop methods to track and respond to such collisions to prevent jeopardy.¹⁸¹

Regardless, Commenters provide the following best management practices that the Corps should require for utility lines/telecommunications projects:

- Avian Powerline Interaction Committee documents (available at https://www.aplic.org/mission) including:
 - Avian Protection Plan (APP) Guidelines
 - Suggested Practices for Avian Protection on Power Lines
 - Reducing Avian Collisions with Power Lines: State of the Art in 2012
- Region 6 Guidance for Minimizing Effects from Power Line Projects Within the Whooping Crane Migration Corridor (available at https://puc.sd.gov/commission/dockets/electric/2019/el19-003/memo.pdf)
- General Condition 2 (Aquatic Life Movements) While this GC states that "No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water," Commenters are

¹⁸¹ The Corps appears to even acknowledge the

concerned that this is not being tracked, and therefore not enforced, with the result that the NWPs are having more than minimum impacts on the environment in violation of the CWA. The Corps should provide a more specific protocol for ensuring that NWPactivities do not have more than minimal environmental impacts, and its blind reliance on the language of the General Conditions without some means of enforcing these limitations is insufficient to meet the requirements of CWA section 404.

• General Condition 18 (Endangered Species) - Commenters have raised several concerns herein about listed species, and the ability of the Corps to ensure that such species will not be jeopardized by NWP activities, particularly given the lack of programmatic ESA consultation and inadequate PCN requirements that fail to ensure that all NWP-authorized activities that "may affect" listed species undergo project-specific consultation. The NMFS BiOps discussed above detail these concerns and show that the Corps has failed to meet its ESA duties for the NWP. As set forth above, GC 18 is inadequate to ensure that even project-specific consultations will take place where required and provides no basis for the Corps "no effect" determination and failure to undertake programmatic consultation on the NWP program.

Commenters further note that PCNs from Non-federal permittees must only be submitted if "any <u>listed</u> species or designated critical habitat might be affected or is in the vicinity of the activity." This, however, fails to include species <u>proposed</u> for listing. The Corps has a duty to "conference" with the Services pursuant to ESA Section 7(a)(4) for any activity that may affect a proposed species; however, that duty is likely to go unfulfilled if PCNs are not required for proposed species.

Moreover, the Proposed Rule suggests that the district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat based on the PCN. Commenters suggest that it would be inappropriate for the Corps to rely only on information provided by permittees and the Corps itself must independently verify the potential for listed species to be affected. In at least one instance that Commenters are aware of, the Corps relied on a third-party report rather than drafting its own Biological Assessment. This is insufficient to meet the requirements of the ESA. Further, the Corps must seek concurrence from the Services for any "no effect" determination, and otherwise must initiate formal consultation whenever listed species may be adversely affected.

 General Condition 23 (Mitigation) - Commenters are concerned that the Corps may be relying on the unrealized promise of mitigation requirements to allow significant environmental harm to occur under the NWP program.¹⁸² Previous reports from the National Research Council and the GAO have shown that mitigation under the NWP program has not proven successful and does not compensate for wetlands lost to

¹⁸² See Kentucky Riverkeeper v. Rowlette, 714 F.3d 402 (6th Cir. 2013) (rejecting the Corps' unsupported assertion that compensatory mitigation would hold environmental impacts to minimal levels, and ruling that the Corps must provide at least "some documented information" supporting that conclusion).

permitted fills.¹⁸³ Furthermore, the Council on Environmental Quality has said that relying on mitigation to assume impacts are reduced below the threshold of significance violates the National Environmental Policy Act.¹⁸⁴ NMFS has stated that "Historically, mitigation has not necessarily offset baseline impacts. Compliance with Corps required compensatory mitigation has been highly variable. Compliance has been very low when monitoring is limited or does not occur or when permits are not specific about mitigation requirements."¹⁸⁵

While the Corps states that it is proposing to require that compensatory mitigation for stream losses be provided through rehabilitation, enhancement, or preservation, this may sound good in theory, but in many instances mitigation simply does not work or is not followed through on, and such efforts are not effectively replacing the lost functions and values where species are affected.¹⁸⁶

NMFS staff have, in fact, raised serious concerns about the effectiveness of NWP mitigation. In a 2006 email from Craig Johnson, the National Section 7 Coordinator in the NMFS office of Protected Resources (attached hereto), he stated that:

Published evidence strongly suggests that human attempts to 'create' or 'restore' habitat has only a small probability of 'creating' or 'restoring' anything that even closely approximates the natural community that was destroyed in the first place (for example, see reviews by Race M. S., and M. S. Fonseca. 1996. Fixing compensatory mitigation: What will it take? Ecological Applications 6:94 suggest failure rates as high as 97%) and, when the 'creation' or 'restoration' occurs in a different location (the most common case) or produces a different biotic community (also the most common case; 'replacing' mid-to-late successional forested wetland with a palustrine emergent system), the individuals and populations that receive the subsidy (in 'out of kind' mitigation, the entire biotic community is different).¹⁸⁷

The question then becomes, how is the Corps ensuring that actual, sufficient mitigation is being completed to replace lost functions and values from NWP activities, and what

¹⁸⁵ 2014 NMFS BiOp at 274-278.

¹⁸⁶ See 2014 NMFS BiOp at 280 ("Most historic reviews of wetlands that are actually created, restored, or enhanced to compensate for the loss of wetland ecosystems that are destroyed or degraded by activities authorized by permits issued by the Corps or a State agency generally have not replaced the ecological and hydrological functions of the original wetlands.").

¹⁸³ See U.S. Government Accountability Office, "Wetlands Protection: Corps of Engineers Does Not Have an Effective Oversight Approach to Ensure that Compensatory Mitigation is Occurring," GAO-05-898 (Sep. 2005).

¹⁸⁴ Council on Environmental Quality, "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations." *Available at*, https://ceq.doe.gov/nepa/regs/40/40p3.htm

¹⁸⁷ Email from Craig Johnson to Daniel Buford (Dec. 5, 2006) (attached hereto).

happens if it turns out that NWP activities result in significant environmental harm in the long run?

Commenters suggest that if mitigation is required to offset environmental harm, then that project cannot qualify for a NWP, since it has the potential for significant (i.e. not minimal) harm if mitigation is not enacted or turns out to be ineffective. In those instances, permittees should have to seek an individual permit for their project.

Mitigation bank credits and in-lieu fee program credits do not replace lost functions and values at the affected location. If such payments are necessary, the project should not qualify for a NWP, but should be required to obtain an individual permit so that the Corps may examine all "practicable alternatives" to the proposed discharge; "[i]dentify and evaluate any special or critical characteristics of the candidate disposal site, and surrounding areas which might be affected by use of such site, related to their living communities or human uses;" make, document, and review "Factual Determinations" to determine whether the information in the project file is sufficient to provide the documentation required; and "[i]dentify appropriate and practicable changes to the project plan to minimize the environmental impact of the discharge"¹⁸⁸

Commenters are further concerned that the compensatory mitigation requirement allows for a waiver if the district engineer determines "that other forms of mitigation, such as best management practices and other minimization measures, are more environmentally preferable forms of mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects." Whether the adverse effects are no more than minimal should be the test for whether the NWP is available to the permittee. Permittees should not be able to purchase compensation to buy their way out of the need for an individual permit. Any activity that does not meet this standard should not be allowed to proceed under the NWP; however, all wetland loss should be compensated at least at a 1:1 ratio (i.e. No Net Loss).¹⁸⁹

• District Engineer's Decision - Section D at part 2 provides that:

When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the

¹⁸⁸ *Id.* § 240.5(c), (f), (g), (j), (k), (l).

¹⁸⁹ White House Office on Envtl. Policy, *Protecting America's wetlands: A Fair, Flexible, and Effective Approach* (Aug. 24, 1993), *available at* http://www.wetlands.com/fed/aug93wet.htm.

aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer.

Commenters are concerned that this provision does not include "cumulative effects" as one of the factors that the district engineer is to consider when making a minimal effects determination, but rather limits the analysis to only direct and indirect effects. This suggests that the results of the cumulative effects analysis that the Corps plans to undertake would not even be considered by a district engineer in rendering a decision on minimal effects. Absent a consideration of the cumulative impacts of a proposed project (i.e. the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions), the Corps cannot ensure that the NWPs are having no more than minimal cumulative adverse effects on the environment as required under the CWA.

The proposed rule also suggests that the District Engineers not only have some innate ability to track cumulative impacts of the NWPs (regardless of the fact that they don't get notice of all NWP activities), but that they have the capacity to ensure that the ongoing use of each NWP-authorized activity continues to meet the requirements of the CWA, stating:

After the NWPs are issued or reissued and go into effect, district engineers will monitor the use of these NWPs on a regional basis (e.g., within a watershed, county, state, Corps district or other appropriate geographic area), to ensure that the use of a particular NWP is not resulting in more than minimal cumulative adverse environmental effects.

The Corps fails entirely to explain how it could possibly do this for hundreds of thousands of NWP-authorized activities, particularly when not all such activities require a PCN. The Corps absurd reliance on the District Engineers to ensure compliance with the CWA is arbitrary and capricious.

G. The Corps Should Prohibit NWP Activities in NFIP 100-Year Floodplains Instead of Relying on General Condition 10 FEMA-Approved Requirements

Floodplain regions that participate in FEMA's National Flood Insurance Program (NFIP) are extremely vulnerable to flood hazards. The risks to the communities and wildlife in these areas are increasing due to the climate change crisis and sea level rise; resulting in flooding that is even more devastating and expensive than ever before (Lopez 2020). Over the last 30 years, freshwater flooding alone has caused an average of \$8.2 billion in damages annually, with numbers trending upward (Wing et al. 2018). Despite these hazards, FEMA's current policies fail to adequately evaluate or address flood risks. Thus, the current General Condition 10 (GC 10) merely requiring that NWP fills must comply with FEMA-approved state or local floodplain management requirements is insufficient to ensure that NWPs in 100-year floodplains will actually have "no more than minimal" adverse effects. 85 F.R. 57298. The Corps should update this general condition to state that NWP activities are not permitted in 100-year floodplains, and an individual permit is required instead. By relying on the heavily flawed and highly criticized FEMA policies, the Corps is failing to independently ensure compliance with the Clean Water

Act (CWA), Endangered Species Act (ESA), and other required laws and regulations to keep the citizens, species, and environment of the United States protected from undue harm.

Although the NFIP set out to restrict development in flood-prone areas like 100-year floodplains, its provision of lower-cost flood insurance and financial assistance to acquire or improve land has effectively subsidized and thus encouraged such development. The resulting expansion in development has actually led to an increase both the magnitude and frequency of flooding (Konrad 2016). The severely insolvent NFIP is currently on the U.S. Government Accountability Office's "High Risk List," which identifies agencies and programs that are "high risk due to their vulnerabilities to fraud, waste, abuse, and mismanagement," or are generally "at most in need of transformation" (Esenyan 2019).

FEMA updated the NFIP in 2018 with the intention of implementing the legislative requirements of the Biggert-Waters Flood Insurance Reform Act of 2012 and the Homeowner Flood Insurance affordability act of 2014, as well as bringing the program into compliance with the ESA. 83 F.R. 24329. Instead, this "reform" turned a blind eye to the effects of climate change and sea level rise on 100-year floodplains and saddled local communities with FEMA's ESA responsibilities (Lopez 2020).

By requiring individuals and local governments to "obtain and maintain documentation" of ESA compliance as a condition to receiving floodplain development permits, FEMA impermissibly shifts its own burden onto parties who do not have a legal obligation to comply with the ESA (Esenyan 2019). For a number of years, FEMA has been the subject of multiple lawsuits due to its implementation of the NFIP and resulting non-compliance with the ESA and jeopardization of endangered species (Esenyan 2019). According to the Corps, NWP activities could not only have adverse effects on the flood-holding capacity in floodplains, but also other "floodplain values," including modifying or eliminating fish and wildlife habitats, reducing water quality functions, and adversely affecting other hydrological functions like groundwater recharge (NWP 29 Decision Document 2020). Because ESA compliance in 100-year floodplains is already dubious under FEMA policies, these additional adverse effects on habitats are likely compounded.

When mapping NFIP flood areas, FEMA does not incorporate climate change and sea level rise data, despite Congressional mandates and an overwhelming scientific consensus to the contrary (Lopez 2020). FEMA also ignores the impact that NFIP has had on climate change and sea level rise. Studies consistently show that FEMA flood maps significantly underestimate flood exposure risks. One study found that the total US population exposed to serious flooding is approximately three times higher than what is calculated using FEMA flood maps (Wing et al. 2018). Thus, actual flood hazard risks, including impacts on human populations as well as imperiled wildlife and their habitats, are not being sufficiently evaluated nor mitigated in NFIP floodplains. Because the "FEMA-approved regulations" relied upon by GC 10 are based on the inaccurate maps, these regulations fail to account for the actual risks that 100-year floodplains face. 85 F.R. 57386. As the climate change crisis continues; hurricanes, storm surge flooding, sea level rise, tidal flooding, and heavy precipitation will only worsen the already severe flood risks in the 100-year floodplains.

The Corps acknowledges in its 2020 Decision Documents that NWP activities will have further adverse effects on the already vulnerable 100-year floodplains but relies on GC 10 to mitigate

the flood hazards caused by the NWPs. However, this reliance is misplaced due to the inadequacy of the current FEMA management requirements. For example, in its 2020 NWP 29 Decision Document, the Corps states that NWP 29 activities may affect the flood-holding capacity of 100-year floodplains, causing impacts to "human health, safety, and welfare" (NWP 29 Decision Document 2020). NWP 29 requires a PCN for all activities, but there are many NWPs that may affect flood-holding capacities of 100-year floodplains according to the Corps but do not typically require a PCN. This means that the effects of NWP activities in these critically vulnerable areas are not even being reviewed by the Corps before they can take place.

The lowered insurance rates offered by NFIP in 100-year floodplains have been found to encourage "unsustainable development in high-risk and ecologically sensitive areas," which exacerbates the already-present risks of building in flood zones and destroys natural defenses to flooding (Lopez 2020). By issuing NWPs in 100-year floodplains, the Corps is essentially providing a way to develop on some of the most fragile land in the country with "little, if any, delay or paperwork." 85 F.R. 57299. The environmentally fragile and poorly managed NFIP Floodplains require added protection. Development in NFIP floodplains should require individual permits, in order to rigorously ensure risk and impacts are being sufficiently evaluated by the Corps, and to ensure compliance with the CWA, ESA, NEPA, and other laws. FEMA's maps and analyses consistently fail to take into account the actual risks in these areas. The current requirement that fills within 100-year floodplains must comply with FEMA-approved floodplain management requirements is inadequate because FEMA refuses to use the best available science, which results in dangerous poorly informed development decisions.

CONCLUSION

Reauthorizing the NWP program will allow hundreds of thousands of "discharges" of dredged or fill material to the Nation's waters and wetlands over the course of the next five years in connection with a wide range of activities that significantly affect the environment, including many activities that are not being tracked by the Corps. The cumulative environmental impacts of the NWP program must be fully analyzed in an EIS, and several of the NWPs should be reconsidered in light of the significant environmental harm they pose. Moreover, the Corps must consider the impacts that the issuance of these NWPs will have on listed species through formal programmatic ESA consultation with both FWS and NMFS. Please contact me if you have any questions regarding these comments.

Sincerely,

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November 16, 2020

SUBMITTED VIA E-MAIL AND REGULATIONS.GOV

U.S. Army Corps of Engineers Attn: CECW-CO-R 441 G Street NW Washington, DC 20314-1000 <u>nationwidepermits2020@usace.army.mil</u>

Re: Comments on Proposal To Reissue and Modify Nationwide Permits, COE-2020-0002

Thank you for the opportunity to comment on the proposal to reissue Nationwide Permit (NWP) 48 and to issue two new aquaculture¹ permits, NWP A and B. As currently proposed, these NWPs and the general conditions would not prevent more than minimal individual or cumulative adverse impacts to the environment from aquaculture. The U.S. Army Corps of Engineers (Corps) should **not adopt** NWP 48 for commercial shellfish aquaculture activities as written, for the same reasons NWP 48 was found unlawful by the federal district court in *Coalition to Protect Puget Sound Habitat v. U.S. Army Corps. Of Engineers*, 417 F.Supp.3d 1354 (W.D. Wash. 2019). If some regions want to adopt general permits for shellfish aquaculture, they are free to do so, but such regional general permits still must only cover similar activities with minimal individual or cumulative impacts. The Corps must require individual permits for the remaining shellfish aquaculture in federal waters, because these operations have potentially significant effects and do not met the criteria for minimal individual or cumulative impacts. As to NWP A, if it is to be issued, it must include additional protections to ensure only minimal cumulative impacts.

Further, the Corps should not re-issue the suite of NWPs prematurely, given that the current cycle is not expired and because a new Administration will take office in January, 2021, and may very likely reverse the Executive Orders on which this action is based.² Two of the new NWPs proposed specifically come from an Executive Order 13921, which may be rescinded by the Biden Administration.

These comments are submitted on behalf of Center for Food Safety (CFS), Friends of the Earth, Center for Biological Diversity, the Coalition to Protect Puget Sound Habitat, Healthy

¹ These comments use the generally-used term "aquaculture" interchangeably with the Corps' new term "mariculture."

² Biden Plans Immediate Flurry of Executive Orders to Reverse Trump Policies (Nov. 7, 2020), <u>https://www.washingtonpost.com/politics/biden-first-executive-orders-</u>measures/2020/11/07/9fb9c1d0-210b-11eb-b532-05c751cd5dc2_story.html.

Gulf, North Oyster Bay Baymen's Association, Beyond Pesticides, Northwest Atlantic Marine Alliance (NAMA), Recirculating Farms Coalition,³ Environmental Action Committee of West Marin, Slow Food USA, Wild Salmon Nation, and the millions of members and supporters they represent. CFS is a nationwide nonprofit organization that empowers people, supports farmers, and protects our environment from industrial agriculture, including aquaculture. Our membership includes nearly 1 million people across the county, including nearly 20,000 members in Washington, who support truly sustainable food and care about the impact of our food production system on our environment and public health. Many of these members are local residents whose cultural, recreational, aesthetic, economic, and personal interests are directly impacted by commercial shellfish aquaculture and its impacts.

I. AQUACULTURE IMPACTS

A. Shellfish Aquaculture Impacts

As acknowledged briefly–but largely ignored–in the Corps' Decision Document for NWP 48, commercial shellfish aquaculture as currently practiced has numerous adverse environmental impacts. The Corps, at least internally, has recognized that these impacts are not on the balance beneficial or neutral, and rather can be significant.⁴ While the focus of this section is on impacts in Washington State, the same is true for industrial shellfish aquaculture in the rest of the country.

1. NWP 48 in Washington

The vast majority of authorizations under NWP 48 are in Washington State. The Corps Seattle District issued 92% of all NWP 48 authorizations under the 2012 NWP 48. A similar percentage is likely in the 2017-2020 timeframe, when the Seattle District stated that it authorized nearly 900 operations, encompassing 35,800 acres of Washington tidelands. The overuse of NWP 48 to cover new and expanding operations in Washington has allowed for expansion of intense shellfish aquaculture operations into previously undisturbed areas in Puget Sound.⁵ And because of the expansion under NWP 48, shellfish aquaculture covers nearly a quarter of Washington tidelands.⁶

³ Recirculating Farms Coalition joins these comments as to NWP A and B only.

⁴ Seattle District, *Draft Cumulative Impacts Analysis for 2017 Nationwide Permit 48* ("Draft CIA"), provided along with this comment.

⁵ See e.g. Coastal Geologic Services, Map of Known Existing and Proposed Shellfish Farm Locations in South Puget Sound, from 2012-2014, provided along with this comment.

 $^{^6}$ NMFS Endangered Species Act Section 7 Formal Biological Programmatic Opinion and

Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Shellfish Aquaculture Activities in Washington State, 8 (2016) (2016 BIOP), <u>https://www.nws.usace.army.mil/Portals/27/docs/regulatory/160907/NMFS_2016_09-02_WA%20Shellfish%20Aquaculture_WCR-2014-1502.pdf</u>.

Washington State is unique when it comes to shellfish aquaculture, but not all shellfish aquaculture is the same. First, Washington is the biggest producer of shellfish in the United States, and has been harvesting and/or growing shellfish commercially for over 150 years. Because of this, shellfish farming in Washington looks very different than it does elsewhere, and is being increasingly industrialized, relying heavily on plastic gear and pesticides and monoculture plantations, while expanding to cover every inch of natural tidelands. Historically, most of the shellfish aquaculture took place in Willapa Bay/Grays Harbor, but recently shellfish farming has expanded significantly in Puget Sound. However, Willapa Bay/Grays Harbor are not the same as Puget Sound, both in ecology and in shellfish farming practices. For example, while oyster and clam is predominant in Willapa Bay, geoduck farming is predominant in Puget Sound, each using different types of equipment. While growers in Willapa Bay/Grays Harbor have an NPDES permit to spray herbicide (imazamox) onto tidebeds to kill Japanese eelgrass, no such pesticide spraying is allowed in Puget Sound.

Thus, while Washington is unique from the rest of the country, its own regions are unique from one another. Not only is the nationwide permit inappropriate to cover Washington, even regional general permits should concentrate on the specific bodies of water in Washington and particular types of shellfish aquaculture, to reflect their unique qualities and impacts. NWP 48 is inappropriate for Washington State.

2. Conversion of Natural Intertidal Ecosystems

The intertidal areas where shellfish are grown are essential habitats for many species, including invertebrates (such as commercially important Dungeness crab), finfish (including herring and salmon), and birds (migratory and shorebirds). This includes species listed as threatened and endangered and protected under the Endangered Species Act. In particular, Willapa Bay serves as critical habitat for green sturgeon (feeding) and many listed salmon populations rear and feed in Washington's coastal waters (Puget Sound and Willapa Bay). These areas are habitat for many varieties of wildlife, serve as nurseries, and have important rules in cycling nutrients.⁷

Much of the intertidal areas in Washington still support eelgrass, which is declining in the rest of the world. Eelgrass or seagrass is a highly valued and protected native habitat for many species of fish, invertebrates, and birds, including migratory and shorebirds.⁸ Eelgrass is known as

⁷ Bendell-Young, L.I., Contrasting the community structure and select geographical characteristics of three intertidal regions in relation to shellfish farming, Environmental Conservation (2006), provided along with this comment.

⁸ 40 C.F.R. § 230.43 (eelgrass is considered a special aquatic site under CWA § 404(b)(1) guidelines); The Nature Conservancy, *Eelgrass Habitats on the West Coast: State of Knowledge of Eelgrass Ecosystem Services and Eelgrass Extent*, <u>http://www.pacificfishhabitat.org/wp-content/uploads/2017/09/EelGrass Report Final ForPrint web.pdf</u>; Deborah Shafer, Pacific Northwest Eelgrass: A White Paper Prepared for Seattle District Army Corps of Engineers (2015), (eelgrass ecosystem services and importance); Puget Sound Partnership had goal of increasing

an "ecosystem engineer" because it can partially create its own habitat by slowing down water flow, while its roots and rhizomes bind and stabilize sediments. Although it was introduced, Japanese eelgrass (*z. japonica*) provides many of the same food, shelter, and habitat functions as native *marina* eelgrass in Washington (and now grows along the entire Pacific coast from Humboldt, California to British Columbia).⁹

As the production of shellfish in Washington intensifies, more of the natural tidelands are being converted to shellfish production. The result is continuous competition with wildlife for habitat and destructive impacts to aquatic vegetation, forage fish, and other prey species. These activities have adverse impacts to wildlife habitat, recreation and aesthetics (important aspects of these iconic areas and their local communities, which also rely on tourism), and water quality. Bed preparation and harvest activities can temporarily increase turbidity and total suspended solids.¹⁰ Shellfish growing activities can thus cause benthic disturbance.¹¹ One of the significant potential environmental impacts from dense shellfish aquaculture is a reduction in shoreline biodiversity. Monocultures of shellfish can fundamentally alter ecosystems by consuming phytoplankton previously relied on by native species, depositing waste on the seabed, and changing the physical dynamics of an environment.¹² And while *wild* bivalves are known to clean water, the water quality impacts of intensive shellfish aquaculture may not always be beneficial; to the contrary, many aquaculture activities negatively affect water quality by the removal of eelgrass, the increase of wastes from concentrated production, and the disruption of sediments. The Corps describes no studies in its Decision Document for NWP 48 to verify its claim that commercially-raised shellfish clean the water in Washington State.

Puget Sound eelgrass by 20% by 2020,

https://www.psp.wa.gov/downloads/AA2011/062011EcosystemRecoveryTargetList.pdf.

⁹ Mach, M.E., S.W. Wyllie-Echeverria, and J. R. Ward. 2010. *Distribution and potential effects of a non-native seagrass in Washington State. Zostera japonica* Workshop, Friday Harbor Laboratories, San Juan Island, WA. Report prepared for Washington State Department of Natural Resources and Washington Sea Grant, *available at* http://file.dnr.wa.gov/publications/aqr_zostera_study.pdf. ¹⁰ Draft CIA at 47-48; NMFS 2016 BIOP at 66.

¹¹ Draft CIA at 49-50; NMFS 2016 BIOP at 75-78.

¹² See id; Bouwman, L., A. Beusen P. M Glibert, C Overbeek, M Pawlowski, J. Herrera S. Mulsow, R. Yu, and M. Zhou, Mariculture: significant and expanding cause of coastal nutrient enrichment, Environ. Res. Lett. 8 (2013); DeFur, P. and D.N. Rader, Aquaculture in estuaries: Feast or famine? Estuaries Vol. 18, No. 1A (1995); Hastings, R.W. and D.R. Heinle, The effects of aquaculture in estuarine environments: Introduction to the dedicated issue, Estuaries Vol. 18, No. 1A (1995); Dethier, M., Native shellfish in nearshore ecosystems of Puget Sound, Puget Sound Nearshore Partnership Report No. 2006-04, Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington (2006); Diana, J.S., H. S. Egna, T. Chopin, M.S. Peterson, L. Cao, R. Pomeroy, M. Verdegem, W.T. Slack, M.G. Bondad-Reantaso, and F. Cabello, Responsible Aquaculture in 2050: Valuing Local Conditions and Human Innovations Will Be Key to Success, Bioscience, Vol. 63(4) (2013); Bendell, L.I. and P.C.Y. Wan, Application of aerial photography in combination with GIS for coastal management at small spatial scales; a case study of shellfish aquaculture (2013).

Commercial shellfish aquaculture harms eelgrass. *Coalition to Protect Puget Sound Habitat v.* U.S. Army Corps. of Engineers, 417 F.Supp.3d 1354, 1359, 1362-63 (W.D. Wash. 2019). Various CWA Section 404 dredge and fill activities associated with shellfish aquaculture, such as tilling, harrowing, dredge harvest and geoduck harvest, may have *significant* impacts individually and cumulatively to eelgrass. Draft CIA at 71-103 (detailing state of eelgrass and cumulative impact of aquaculture on eelgrass). Damage to eelgrass harms the species that rely on it for shelter, food, and spawning habitat. Forage fish are particularly harmed, and are a crucial part of the food chain for bigger fish like salmon, which in turn are the primary prey for Southern Resident Killer Whales.¹³ Draft CIA at 50.

Commercial shellfish also affects forage fish through work in spawning areas and the aquaculture equipment used, which can remove spawning habitat, smother eggs by trampling, and kill fish entangled in cover nets. Draft CIA at 108. Fish and birds are also harmed or killed by aquaculture beyond eelgrass reduction, through decreases in their prey species, food sources, and refugia, in-water activity, noise, increases in suspended sediment, and net entanglement. Draft CIA at 50-51.¹⁴

Mechanical shellfish dredging techniques can have serious and significant impacts to the benthos and wildlife that relies on this habitat. Hydraulic dredges use high-power water jets to loosen sediment and dislodge clams and other benthic organisms. Thus, the actual "digging" for shellfish is "accomplished by the action of the water jets, which are directed downwards and backwards."¹⁵ Water jets have been observed to disturb the substrate up to 18 inches below the surface.¹⁶ The dredge then scrapes through this loosened sediment, capturing dislodged organisms. Suction dredges draw a large flow of water upwards to the surface, where workers separate shellfish from by-catch and other material. According to the National Oceanic and Atmospheric Administration (NOAA), suction dredges act "as . . . large vacuum cleaner[s]," sucking oysters and other species from the seafloor, along with large quantities of water, mud, and sand.¹⁷ In a study mimicking commercial dredging practices, researchers found dramatic decreases in population in target and non-target species immediately after dredging.¹⁸ Even two years later, most benthic

¹³ Marine Mammal Commission, Southern Resident Killer Whales,

https://www.mmc.gov/priority-topics/species-of-concern/southern-resident-killer-whale/. ¹⁴ See also Coalition to Protect Puget Sound Habitat, Petition to Suspend NWP 48, 10-16 (May,

^{2015),} provided along with this comment.

¹⁵ J. S. MacPhail, A Hydraulic Escalator Shellfish Harvester, Fisheries Res. Bd. of Can. 12 (1961).

¹⁶ See Mark F. Godcharles, A Study of the Effects of a Commercial Hydraulic Clam Dredge on Benthic Communities in Estuarine Areas, Fla. Dep't Nat. Res. (1971).

¹⁷ NOAA, Review of the Ecological Effects of Dredging in the Cultivation and Harvest of Molluscan Shellfish 5 (2011), <u>http://shellfish.ifas.ufl.edu/wp-content/uploads/Review-Ecological-Effects-of-Dredging-to-Harvest-Molluscs.pdf</u>.

¹⁸ See Kent D. Gilkinson et al., Immediate Impacts and Recovery Trajectories Of Macrofaunal Communities Following Hydraulic Clam Dredging on Banquereau, Eastern Canada, 62 ICES J. Marine Sci. 925 (2005).

communities were still in the colonizing or rebuilding phase, and 67 percent of target shellfish showed no signs of recovery.¹⁹ Another study, which observed the lasting effects of mechanical dredging on hard-shell clams for five years after dredging, concluded that it can take decades for adult clam populations to recover after mechanical dredging.²⁰

According to the New York State Department of Environmental Conservation, mechanical dredging adversely affects benthic fish habitats, as well as the non-target benthic community, and "result[s] in high mortality rates among non-target species."²¹ Dredging "lower[s] the average density of benthic fauna by 59 percent and decrease[s] the number of species present," killing invertebrates in the dredge track.²² NOAA similarly found that when dredges scrape the seafloor, species "can be removed, crushed, buried, or exposed," and dredges "can erase structural features from the seafloor."²³ Mechanical dredging "restructure[s] benthic environments" by homogenizing sediments.²⁴ Homogenization results in lowered variability in sediment types and nutrients, impairing benthic ecosystems.²⁵ Mechanical dredging can also leave long-lasting grooves in the seafloor.²⁶ Indeed, the physical effects of the dredges "are comparable to forest clear-cutting."²⁷

Mechanical dredging significantly increases turbidity, which can damage or kill fish eggs and larvae and threaten the survival of juvenile and adult fish.²⁸ Suspended sediment can travel several hundred feet from the area originally disturbed,²⁹ and researchers have observed that fine sediment, in particular, can travel kilometers from a dredging site.³⁰ A study by Danish researchers examining turbidity associated with mechanical dredging found that a single 100-meter tow of the

²⁴ Simon F. Thrush & Paul K. Dayton, Disturbance to Marine Benthic Habitats by Trawling and Dredging: Implications for Marine Biodiversity, Annual Review of Ecology and Systematics, 33 Ann. Rev. of Ecology & Systematics 449 (2002).

²⁶ Id.; see also G. Carleton Ray & Jerry McCormick-Ray, Coastal-Marine Conservation 20 (2004).

²⁷ G. Carleton Ray & Jerry McCormick-Ray, Coastal-Marine Conservation 19–20 (2004).

²⁸ See Z. F. Yang et al., Impact Assessment of Dredging on Fish Eggs and Larvae: A Case Study in Caotan, South China, 351 IOP Conf. Series: Earth Envtl. Sci. (2019).

¹⁹ Id.

 ²⁰ See Stefán Áki Ragnarsson et al., Short and Long-term Effects of Hydraulic Dredging on Benthic Communities and Ocean Quahog (Artic islandica) Populations, 109 Marine Envtl. Res. 113 (2015).
 ²¹ Letter from Alice Webber, N.Y. Dep't of Envtl. Conserv., to Ed Bausman 1–2 (May 7, 2007).

²² Id. at 2.

²³ NOAA, Review of the Ecological Effects of Dredging in the Cultivation and Harvest of Molluscan Shellfish 13, 15, 17 (2011), <u>http://shellfish.ifas.ufl.edu/wp-content/uploads/Review-Ecological-Effects-of-Dredging-to-Harvest-Molluscs.pdf</u>.

²⁵ Id.

²⁹ See Nathan Hawley et al., Sediment Resuspension in Lake Ontario During the Unstratified Period, 1992-1993, 22 J. Great Lakes Res. 707 (1996).

³⁰ See Paula Canal-Vergés et al., *Reviewing the Potential Eelgrass Impacts Caused by Mussel Dredging*, Danish Shellfish Ctr. (2014); *see also* P.P. Maier et al., *Effects of Subtidal Mechanical Clam Harvesting on Tidal Creeks*, S.C. Dep't of Nat. Res., Marine Resources Res. Inst. (1998).

dredge was enough to cause a measurable increase in turbidity for up to two hours at a distance of 100 meters.³¹ Such heightened turbidity lowers egg-hatching rates and can damage fish gills.³²

Industrial shellfish aquaculture does not only harm Washington State. For example, in Oyster Bay, on the North Shore of Long Island, New York, mechanical shellfish dredging was previously authorized under NWP 48. A recent survey commissioned by the Town of Oyster Bay made clear that clam density and population have decreased substantially in publicly owned areas of Oyster Bay adjacent to mechanical dredging operations over time, likely due to the impaired water quality and heightened turbidity associated with mechanical dredging.³³ Mechanical dredging in Oyster Bay also threatens the survival of the winter flounder, a species that faces declining abundance and distribution in New York State.³⁴ Mechanical dredging in Oyster Bay occurs wholly within the Essential Fish Habitat of the winter flounder, critical for all its life stages. The District Engineer in New York has not acted to regionally condition or deny NWP 48 authorizations to prevent these types of significant individual and cumulative adverse impacts.

Although largely dismissed as temporary in the Corps' decision document, impacts to eelgrass and the other various impacts associated with shellfish aquaculture occur continuously or perennially, with impacts of the different stages of shellfish culture continuing year after year and restarted after harvest. These include bed preparation (or "cleaning," which entails removal of native species, like sand dollars), seeding, grow out, harvest, and then re-seeding to restart the process. Shellfish aquaculture is a *continuous* disturbance and some disturbances, like to eelgrass, may never allow full recovery. Draft CIA at 56-58, 95.³⁵

3. Plastics

The use of plastics is another problematic and unassessed aspect of commercial shellfish. This includes PVC geoduck tubes (using over 43k tubes/acre), plastic anti-predator netting (highdensity polyethylene), and plastic ropes for oyster long-lines (polyolefin), among other types. Plastics gear adds plastic pollution to the ocean and beaches through plastic debris (which can even

https://www.dec.ny.gov/docs/wildlife_pdf/sgcnwinterflounder.pdf.

³¹ Id.

³² See Z. F. Yang et al., Impact Assessment of Dredging on Fish Eggs and Larvae: A Case Study in Caotan, South China, 351 IOP Conf. Series: Earth Envtl. Sci. (2019).

³³ See Cashin Associates, P.C., Draft 2018 Clam Density Survey Findings Overview for the Oyster Bay/Cold Spring Harbor Complex 10 (2018). As confirmed by a phone call to the Town of Oyster Bay Department of Environmental Resources on June 24, 2020, the data in this Draft Survey are the same as the data in the Final Survey dated January 2019, which is not available online.

³⁴ See List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State, N.Y. Dep't of Envtl. Conserv., <u>https://www.dec.ny.gov/animals/7494.html</u>; see also N.Y. Dep't of Envtl. Conserv., Species Status Assessment: Winter Flounder (2014),

³⁵ See also Seattle District, Supplemental Dec. Doc. for NWP 48, at 103-4 (2017), <u>https://www.nws.usace.army.mil/Portals/27/docs/regulatory2/170420-NWPs/170420-NWPs0048.pdf?ver=2017-04-20-184742-913</u>.

be found as far away as Hawaii) and by breaking down into microplastics, with grave impacts to wildlife, aesthetics, and food safety.



Figure 1 Left: Geoduck PVC tubes stuck into tidebed in Totten Inlet, WA. Right: Aerial shot of PVC tubes and oyster bags in WA.

Anti-predator netting traps wildlife, excludes wildlife from its habitat, and may become dislodged and transported. This netting actually provides little benefit to the industry despite its cost in terms of nearshore impacts and plastics pollution.³⁶

Aerial photos taken by the Coalition to Protect Puget Sound show the extent of coverage by this plastic netting:





³⁶ Bendell, L.I., Favored use of anti-predator netting (APN) applied for the farming of clams leads to little benefits to industry while increasing nearshore impacts and plastics pollution, Marine Pollution Bulletin (2015), provided along with this comment.







Figure 2: Left: A juvenile bald eagle is caught in an aquaculture net on Harstine Island, WA. Right: Remains of bird caught beneath anti-predator net

This plastic gear also breaks down into microplastics, and act as an additional source of plastic contamination in the ocean.³⁷ Microplastics absorb toxic pollutants already present in the water, and are being ingested by the very bivalves being cultivated.³⁸ These microplastics act like a poison pill to aquatic life that consume them, and have been shown to reduce oyster's

³⁷ Id.

³⁸ Id.; Kieran Mulvey, Oysters Are Munching Our Microplastics, Discovery News, http://goo.gl/hJn5Ov.

reproductive ability.³⁹ The research on microplastics and their impacts to human health is ongoing and revealing some disturbing effects.⁴⁰



Figure 3 Left: Yellow rope used in long-line culture growing through oyster shell. Right: PVC tube degrading

4. Pesticides

Washington State allows pesticide use with shellfish aquaculture. Pesticides are meant to harm or kill living organisms, so their use has a high potential for adverse effects to non-target wildlife, particularly in an aquatic environment where pesticides will move off the application site.

Shellfish growers in Willapa Bay, WA are currently allowed to spray the herbicide imazamox to kill non-native eelgrass, pursuant to a NDPES permit re-issued April 2020.⁴¹ While non-native eelgrass tends to grow at higher elevations than native eelgrass, Willapa Bay is so flat that there are many mixed beds, and the herbicide will kill native eelgrass just as easily as non-native.⁴² The permit allows thousands of acres to be sprayed with the herbicide annually, and if the

³⁹ Chelsea Harvey, All the plastic that we're throwing in the oceans could be hurting baby oysters, Washington Post (Feb. 2, 2016); Rossana Sussarellu, et al., Oyster reproduction is affected by exposure to polystyrene microplastics, PNAS 2016 113 (9) 2430-2435 (February 1, 2016); Oona M. Lönnstedt* and Peter Eklöv, Environmentally relevant concentrations of microplastic particles influence larval fish ecology, Science (June 3, 2016); Lisbeth Van Cauwenberghe, Colin R. Janssen, Microplastics in bivalves cultured for human consumption, Environmental Pollution (2014), all provided along with this comment.

⁴⁰ See e.g., Southern California Coastal Water Research Project, *Microplastics Health Effects Webinar* Series, Recordings of Webinars and Powerpoints available at:

https://www.sccwrp.org/about/research-areas/additional-research-areas/trash-pollution/microplastics-health-effects-webinar-series/.

⁴¹ Wash. Dept. of Ecology, *Zostera japonica* Management on Commercial Clam Beds in Willapa Bay General Permit, https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Aquatic-pesticide-permits/Zostera-japonica-eelgrass-management (last visited Nov. 7, 2020).

⁴² Olympic Environmental Council, Comments to Wash. Dept. of Ecology on NPDES permit for control of non-native eelgrass, <u>https://scs-public.s3-us-gov-west-</u>

^{1.}amazonaws.com/env production/oid100/did1001/pid 10600/assets/merged/w4197i0m docu

growers leave a 10m buffer to the next property line, they are released from monitoring requirements. This herbicide will not only kill eelgrass it is applied to (including native eelgrass in mixed beds), it will not stay where it is put, and will be instead transported to other parts of Willapa Bay.

B. Finfish Aquaculture Impacts

The new NWPs proposed would open coastal and federal waters in all regions of the U.S. to finfish aquaculture (or mariculture). Industrial ocean fish farming—also known as offshore or marine finfish aquaculture—is the mass cultivation of finned fish in the ocean, in net pens, pods, and cages. These are essentially floating feedlots in open water, which can have devastating environmental and socio-economic impacts. Industrial aquaculture is associated with many environmental and public health concerns, including: the escape of farmed fish into the wild; outcompeting wild fish for habitat; food and mates or intermixing with wild fish and altering their genetics and behaviors; the spread of diseases and parasites from farmed fish to wild fish and other marine life; and pollution from excess feed, wastes and any antibiotics or other chemicals used flowing through the open pens into natural waters. Industrial aquaculture also significantly affects public health, as antibiotics, pesticides and other chemicals that are heavily used to prevent disease and parasites in industrial aquaculture can accumulate in fish tissues. These impacts could be felt in any region where NWP B is used.

Because of extensive environmental, socio-economic and public health problems from marine finfish aquaculture, several countries, like Canada, Argentina and Denmark, are already moving away from offshore aquaculture due to these serious impacts.⁴³

Escapes Are Inevitable and Disastrous: Marine finfish aquaculture routinely results in farmed fish escapes that adversely affect wild fish stocks. In August 2017, a Cooke Aquaculture facility in Washington State spilled more than 263,000 farmed Atlantic salmon into Puget Sound. Long after the escape, many of these non-native, farmed fish continued to thrive and swim free, even documented as far north as Vancouver Island, west of the Strait of Juan de Fuca, and south of Tacoma, traveling at least 100 miles from the farm.⁴⁴ Escaped farmed fish compete with wild fish for food, habitat, spawning areas, and mates. Even for facilities that rely on the sterility of farmed fish to prevent interbreeding, sterility is *never* 100% guaranteed. Therefore, the "long-term

<u>ment.pdf?v=KE3BGZMNV</u>; U.S. FWS, Comments to Wash. Dept. of Ecology on NPDES permit for control of non-native eelgrass, (Feb. 14, 2014), provided along with this comment.

⁴³ Hallie Templeton (Feb. 10, 2020). *International examples offer US a blueprint for aquaculture regulation in 2020*. Friends of the Earth. <u>https://foe.org/international-examples-offer-us-blueprint-aquaculture-regulation-2020/.</u>

⁴⁴ Lynda V. Mapes, Seattle Times, Despite agency assurances, tribes catch more escaped Atlantic salmon in Skagit River (Dec. 1, 2017), *available at* <u>https://www.seattletimes.com/seattle-news/environment/despite-agency-assurances-tribes-catch-more-escaped-atlantic-salmon-in-skagit-river/</u>.

consequences of continued farmed [fish] escapes and subsequent interbreeding . . . include a loss of genetic diversity." $^{\rm 45}$

Finally, escaped farmed fish might spread a multitude of parasites and diseases to wild stocks, which could prove fatal when transmitted.⁴⁶

Pesticides and Other Chemicals: Because finfish aquaculture confines large numbers of fish together, much like Concentrated Animal Feeding Operations (CAFOs) on land, they rely heavily on drugs and pesticides to address disease spread. Marine finfish aquaculture uses pharmaceuticals and other chemicals pervasively for prevention and treatment of disease outbreaks in facilities. The use of these chemicals creates environmental and public health concerns. Just like in CAFOs, concentrated populations of animals are more susceptible to pests and diseases due to confined spaces and increased stress. In response, the agriculture and aquaculture sectors administer a pharmacopeia of chemicals. But in the open ocean residues of these drugs are discharged and absorbed into the marine ecosystem. For example, the marine finfish aquaculture industry treats sea lice with Emamectin benzoate (marketed as SLICE®), which has caused "widespread damage to wildlife," including "substantial, wide-scale reductions" in crabs, lobsters and other crustaceans.⁴⁷ In Nova Scotia, an 11-year-long study found that lobster catches plummeted as harvesters got closer to marine finfish aquaculture facilities.⁴⁸ Another study by researchers at Norway's Institute of Marine Research found that alternative chemicals for sea lice

⁴⁵ Fisheries and Oceans Canada, Newfoundland and Labrador Region, Stock Assessment of Newfoundland and Labrador Atlantic Salmon (2016), *available at* <u>http://waves-vagues.dfo-mpo.gc.ca/Library/40619655.pdf</u> ("Genetic analysis of juvenile Atlantic Salmon from southern Newfoundland revealed that hybridization between wild and farmed salmon was extensive throughout Fortune Bay and Bay d'Espoir (17 of 18 locations), with one-third of all juvenile salmon sampled being of hybrid ancestry."); *see also* Mark Quinn, CBC News, *DFO study confirms 'widespread' mating of farmed, wild salmon in N.L.* (Sept. 21, 2016)

https://www.cbc.ca/news/canada/newfoundland-labrador/farmed-salmon-mating-with-wild-in-nl-dfo-study-1.3770864.

⁴⁶ Jillian Fry, PhD MPH, David Love, PhD MSPH, & Gabriel Innes, VMD, Johns Hopkins University, Center for a Livable Future, "Ecosystem and Public Health Risks from Nearshore and Offshore Finfish Aquaculture" at 6-7 (2017), <u>https://www.jhsph.edu/research/centers-andinstitutes/johns-hopkins-center-for-a-livable-future/ pdf/research/clf reports/offshor-finfishfinal.pdf.</u>

⁴⁷ Rob Edwards, The Sunday Herald, Scottish government accused of colluding with drug giant over pesticides scandal, (June 2, 2017)

http://www.heraldscotland.com/news/15326945.Scottish government accused of colluding wit h drug giant over pesticides scandal/.

⁴⁸ Milewski, et al., (2018) Sea Cage aquaculture impacts market and berried lobster catches, Mar. Ecol. Prog. Ser. 598: 85-97, available at <u>https://www.int-</u>res.com/articles/meps2018/598/m598p085.pdf.

treatment, Azamethiphos and deltamethrin, are acutely toxic to lobster larvae, creating a significant risk for the species when located near finfish aquaculture facilities.⁴⁹

Disturbingly, these industrial operations are also bidding to use Imidacloprid—a bee-killing neonicotinoid and neurotoxin that is highly toxic to aquatic invertebrates—to help control sea lice.⁵⁰ In addition, the industry has embraced the use of Formaldehyde—a toxic carcinogen posing risk to both public health and the marine ecosystem—as a form of disinfectant.⁵¹

Finally, marine finfish aquaculture facilities' use of antibiotics is contributing to the public health crisis of antibiotic resistance. Residual antibiotics and other chemicals may still be in farmed fish when they reach consumers, and they can also leach into the ocean, contaminating nearby water and marine life. In fact, up to 75% of antibiotics used by the industrial ocean fish farming industry are directly absorbed into the surrounding environment.⁵²

Discharge of Pollutants: Another serious concern is the direct discharge of untreated pollutants, including excess food, waste, antibiotics, and antifoulants_associated with industrial ocean fish farms. Releasing such excess nutrients can negatively impact water quality surrounding the farm and threaten surrounding plants and animals.

Harm to Wild Marine Life: These underwater factory farms can also physically impact the seafloor, create dead zones, and change marine ecology by attracting and harming predators and other species that congregate around fish cages. These predators – such as birds, seals, and sharks – can easily become entangled in net pens, stressed by acoustic deterrents, and hunted. In fact, an industrial ocean fish farm caused the death of an endangered monk seal in Hawaii, which was found entangled in the net.⁵³ In August 2018, Cooke Aquaculture entangled an endangered Humpback whale in large gillnets that it cast to recapture escaped farmed fish from a Canada facility.⁵⁴ These examples are merely two of many unfortunate incidents.

⁴⁹ Parsons, et al., <u>The impact of anti-sea lice pesticides, azamethiphos and deltamethrin, on European lobster</u> (Homarus gammarus) larvae in the Norwegian marine environment, Envt'l Pollution 264 (2020).

⁵⁰ Rob Edwards, The Ferret Scotland, <u>Fish farm companies 'bidding to use bee-harming pesticide</u> (March 17 2020).

⁵¹ Rob Edwards, The Ferret Scotland, <u>Toxic fish farm pesticide polluted ten lochs across Scotland</u> (May 24, 2020).

⁵² United Nations, "Frontiers 2017: Emerging Issues of Environmental Concern" at 15 (2017) <u>https://www.unenvironment.org/resources/frontiers</u>.

⁵³ Caleb Jones, USA Today, *Rare Monk Seal Dies in Fish Farm off Hawaii* (Mar. 17 2017), *available at* <u>https://www.usatoday.com/story/news/nation/2017/03/17/rare-monk-seal-dies-fish-farm-off-hawaii/99295396/</u>.

⁵⁴ Terri Coles, CBC News, *Humpback whale freed from net meant for escaped farm salmon in Hermitage Bay* (Aug. 14, 2018), <u>https://www.cbc.ca/news/canada/newfoundland-labrador/whale-caught-gill-net-cooke-aquaculture-1.4784732</u>.

Harm to Forage Fish & Environment for Feed: Large populations of farmed fish also require an incredible amount of fish feed, which carries its own environmental, public health, and human rights risks.⁵⁵ Most industrially farmed finfish, like salmon, are carnivorous and require protein in their feed. This often consists of lower-trophic level "forage fish," many of which are already at risk of collapse. Lately, aquaculture facilities are relying more on ingredients such as corn, soy, and algae as substitute protein sources, many of them genetically engineered, and which do not naturally exist in a fish's diet. Use of these ingredients can lead to heightened, widespread environmental degradation,⁵⁶ a heightened demand on natural resources, and a less nutritious fish for consumers. Moreover, the fish feed industry is a global contributor to human trafficking and slavery.⁵⁷ There are very few requirements for the industry to include traceability of ingredients or sourcing methods in fish feed, allowing these serious problems to pervade.

Socio-Economic Impacts to Communities: Finally, permitting commercial, marine finfish aquaculture in the United States could bring formidable economic harm to our coastal communities, food producers (on land and at sea), and other marine-reliant industries. Members of the wild-capture fishing industry have collectively voiced their trepidations over attempting to coexist with the marine finfish aquaculture industry, stating that "this emerging industrial practice is incompatible with the sustainable commercial fishing practices embraced by our nation for generations and contravenes our vision for environmentally sound management of our oceans."58 These massive facilities could also close off and essentially privatize large swaths of the ocean that are currently available for numerous other commercial purposes, including fishing, tourism, shipping, and navigation. Given what we know about economies of scale and the business models of modern agriculture and terrestrial food production, we can only expect a similar trend at sea: that is, the marine finfish aquaculture industry could easily push out responsible, small-scale seafood producers and crop growers. This dynamic equates to an alarming imbalance of power, and allows corporations to dominate business structures, production methods, and management policies within the industry. Giving corporations disproportionate influence over food production also severely limits consumer choices.⁵⁹ Most importantly, our existing seafood producers are

⁵⁶ Center for Food Safety, GE Food & The Environment,

⁵⁵ See generally, Changing Markets Foundation, *Until the Seas Run Dry* (2019), *available at* <u>http://changingmarkets.org/wp-content/uploads/2019/04/REPORT-WEB-UNTILL-THE-SEAS-DRY.pdf</u> (concluding that using wild fish to feed farmed fish "raises concerns of overfishing, poor animal welfare and disruption of aquatic food webs; it also undermines food security in developing countries, as less fish is available for direct human consumption").

https://www.centerforfoodsafety.org/issues/311/ge-foods/ge-food-and-the-environment.

⁵⁷ David Tickler, et al. (2018) Modern slavery and the race to fish, Nature Communications 9: 4643, available at <u>https://www.nature.com/articles/s41467-018-07118-9</u>.

⁵⁸ Open letter to Members of the U.S. House of Representatives and Senate, Dec. 4, 2018, re: Opposition to marine finfish aquaculture in U.S. waters, *available at* <u>http://foe.org/DecFishFarmingSignOnLetter/</u>.

⁵⁹ See generally, Undercurrent News, "World's 100 Largest Seafood Companies" (Oct. 7, 2016) <u>https://www.undercurrentnews.com/report/undercurrent-news-worlds-100-largest-seafood-companies-2016/;</u> Tom Seaman, Undercurrent News, "World's top 20 salmon farmers:

acutely struggling from the sweeping impacts of the COVID-19 pandemic. The Administration should set aside its flawed mission to advance an industry with myriad documented harms, and instead prioritize protecting and assisting our preexisting – and deeply struggling – seafood production sectors.

II. LEGAL REQUIREMENTS

A. Clean Water Act

The Clean Water Act (CWA)'s goal is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The Corps has authority under CWA Section 404 to regulate dredge and fill activities, including the various activities used in commercial shellfish aquaculture. *Id.* § 1344. Under the CWA, the Corps may only issues nationwide permits if "the activities in such category are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment." 33 U.S.C. § 1344(e)(1). *See also* 33 C.F.R. § 323.2(h) (general permit may be granted on nationwide or regional basis only if "activities it covers are substantially similar in nature and cause only minimal individual and cumulative environmental impacts").

In issuing a general permit, either regional or nationwide, the Army Corps *must* properly consider the separate and cumulative impacts from the permit on the environment, and make a finding that the permit will not have more than minimal adverse impacts before granting any general permits under CWA § 1344(e)(1). The Corps may not legally adopt a NWP if the activities covered will cumulatively cause more than minimal adverse impacts to the environment. This determination for general permits must be supported, in accordance with the § 404(b) Guidelines, which require the Corps to provide documentation to support each factual determination, including cumulative impacts and secondary effects. 40 C.F.R. §§ 230.7(b); 230.11. If the Corps relies on mitigation measures to meet the CWA standard of no more than minimal adverse cumulative impacts, it must adequately document those mitigation measures and support their efficacy. Id. See e.g. Wyoming Outdoor Council Powder River Basin Resources Council v. U.S. Army Corps of Engineers, 351 F. Supp. 2d 1232 (D. Wyo. 2005) (finding Corps' was arbitrary and capricious when it issued a general permit for discharge of dredge and fill materials associated with coalbed methane gas in Wyoming, because it failed to consider cumulative impacts, relied on mitigation measures that were wholly unsupported and unmonitored, and failing to make a finding under the CWA that the cumulative impacts to the aquatic environment would be minimal, remanding to Corps); Maryland Native Plant Socy. v. U.S. Army Corps of Engineers, 332 F. Supp. 2d 845, 862 (D. Md. 2004) (finding Army Corps' decision to allow construction of housing developments involving dredging and/or filling of wetlands, to proceed under general statewide permit as having

Mitsubishi moves into second place behind Marine Harvest" (June 29, 2016) <u>https://www.undercurrentnews.com/2016/06/29/worlds-top-20-salmon-farmers-mitsubishi-movesinto-second-place-behind-marine-harvest/;</u> Aslak Berge, Undercurrent News, "These are the world's 20 largest salmon producers" (July 30, 2017) <u>http://salmonbusiness.com/these-are-the-worlds-20-largest-salmon-producers/</u>.

minimal adverse environmental impact was arbitrary, capricious, and an abuse of discretion under the Administrative Procedures Act, where Corps failed to provide sufficient reasoning for its conclusion that project would have minimal adverse environmental impact).

B. National Environmental Policy Act

The B. National Environmental Policy Act (NEPA) "is our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). It requires a detailed environmental impact statement (EIS) for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). NEPA "ensures that the agency . . . will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger [public] audience." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

If the federal action may significantly affect the environment, the Corps must prepare an EIS. Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1219-20 (9th Cir. 2008). If the agency finds instead that the action will not have a significant impact (FONSI), the agency must supply a "convincing statement of reasons" to explain how the action's impacts are insignificant. Id. at 1220 (quoting Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1212 (9th Cir. 1998) ("The statement of reasons is crucial to determining whether the agency took a 'hard look' at the potential environmental impact...")).

Whether an action is significant requires consideration of the "context" and "intensity" factors, and an action may be "significant," requiring an EIS, if even one of the factors is present. 40 C.F.R. § 1508.27; Ocean Advocates v. U.S. Army Corps of Eng'rs, 402 F.3d 846, 864-65 (9th Cir. 2005). A FONSI and a decision to forgo an EIS may be justified by adoption of mitigation measures; however measures "must be developed to a reasonable degree," and a "perfunctory description, or mere listing of mitigation measures, without supporting analytical data, is insufficient to support a finding of no significant impact." Nat'l Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 733-34 (9th Cir. 2001) (citations omitted).

NEPA regulations require the agency analyze (take a hard look at) all direct, indirect, and cumulative impacts. See 40 C.F.R. §§ 1508.8; 1508.9; 1508.13; 1508.18; 1508.27. Cumulative impacts include the incremental impact of the proposed action when added to all past, present, and reasonably foreseeable actions, taken not just by the agency, but by any entity. *Id.* § 1508.7. A thorough consideration of cumulative impacts is required in an EA. *Kern v. U.S. Bureau of Land* Mgmt., 284 F.3d 1062, 1075-77 (9th Cir. 2002).⁶⁰

⁶⁰ Although the NEPA regulations were amended in July 2020, those rollbacks are arbitrary and capricious, and the subject of several court challenges. *See e.g. Alaska Community Action on Toxics et al. v. Council on Environmental Quality*, No. 3:20-cv-5199-RS (N.D. Cal.). Given these pending cases, and the pending transition in Administration, the Corps should comply with the NEPA regulations requiring cumulative impacts analysis, especially because the Corps must assess cumulative impacts anyway to lawfully adopt NWPs.

Alternatives to the proposed action are the "heart" of NEPA. 40 C.F.R. § 1502.14. EAs must assess a "no action" alternative, *i.e.* the status quo without the action, and a reasonable range of alternatives to the proposed action. *Earth Island Inst. v. U.S. Forest Serv.*, 697 F.3d 1010, 1022 (9th Cir. 2012); W. Watersheds Project v. Abbey, 719 F.3d 1035, 1050 (9th Cir. 2013); 42 U.S.C. § 4332(2)(E); 40 C.F.R. § 1508.9(b).

Finally because public disclosure is one of the pillars of NEPA, agencies are required to provide enough information to allow the public to weigh in and inform the decision-making process. *Bering Strait Citizens for Responsible Res. Dev. v.* U.S. Army Corps of Eng'rs, 524 F.3d 938, 952 (9th Cir. 2008).

C. Endangered Species Act

As recognized by the U.S. Supreme Court, the Endangered Species Act (ESA) is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation" and "reveals a conscious decision by Congress to give endangered species priority over the 'primary missions' of federal agencies." *Tenn. Valley Authority v. Hill*, 437 U.S. 153, 180, 185 (1978).

Section 7(a)(2) of the ESA requires every federal agency to consult the appropriate federal fish and wildlife agency (the Services, NMFS or FWS) to "insure" that the agency's actions are not likely "to jeopardize the continued existence" of any listed species or "result in the destruction or adverse modification" of critical habitat. 16 U.S.C. § 1536(a)(2); *see also* 50 C.F.R. § 402.01(b). Section 7(a)(2) requires the Corps, as the "action agency," to determine if a proposed action like the challenged permit approval here "may affect" any listed species or designated critical habitat. If so, then the Corps then must enter consultation with the expert wildlife agencies, FWS (for terrestrial and freshwater species) and NMFS (for marine species) 50 C.F.R. § 402.14(a); *id.* § 17.11; *id.* § 223.102; *id.* § 224.101. Importantly, the "may affect" standard is extremely low: "[A]ctions that have any chance of affecting listed species or critical habitat—even if it is later determined that the actions are 'not likely' to do so—require at least some consultation under the ESA." *Karuk Tribe of California v. U.S. Forest Serv.*, 681 F.3d 1006, 1027 (9th Cir. 2012) (en banc); *see also W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 496 (9th Cir. 2011).

Formal consultation results in the expert consulting agency's BiOp determining whether the action is likely to jeopardize listed species. 50 C.F.R. § 402.14(h)(3). If the consulting agency determines that jeopardy is not likely, it issues an Incidental Take Statement (ITS) with the BiOp authorizing a defined amount of take that may result from the action. 16 U.S.C. § 1536(b)(4), (o)(2); 50 C.F.R. § 402.14(i)(5). The ITS includes other important components, including requirements to minimize impacts to species and to monitor and report take of protected species to ensure that the amount authorized is not exceeded. 16 U.S.C. § 1536(b)(4)(C)(ii); 50 C.F.R § 402.14(i)(1)(ii), (i)(3); *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 531-32 (9th Cir. 2010).⁶¹ In all

⁶¹ If an action "may affect" endangered species and/or its critical habitat, there is one exception to formal consultation: informal consultation. Agencies must still consult with the expert agency, but

of ESA analyses and decisions, agencies must "give the benefit of the doubt to the species," *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988), and use the best scientific and commercial data available, 16 U.S.C. § 1536(a)(2).

The ESA requires this analysis be done "at the earliest possible time," 50 C.F.R. § 402.14(a). Later, individual-permit decisions will not be equivalent in scope, and will create impermissible piecemeal decision-making, a danger of death by a thousand cuts. "[T]he scope of the agency action is crucial because the ESA requires the [BiOp] to analyze the effect of the entire agency action." *Conner v. Burford*, 848 F.2d 1441, 1453 (9th Cir. 1988) (emphasis in original). *See e.g. N. Plains Res. Council v. U.S. Army Corps of Eng*'rs, 454 F. Supp. 3d 985, 994 (D. Mont. 2020) ("General Condition 18 fails to ensure that the Corps fulfills its obligations under ESA Section 7(a)(2) because it delegates the Corps' initial effect determination to non-federal permittees" and programmatic consultation is the only way to avoid "piecemeal destruction of species and habitat").

Agencies remain under a continuing duty under Section 7 of the ESA after consultation to insure that the action will not jeopardize species. Wild Fish Conservancy, 628 F.3d at 525. Accordingly, agencies must reinitiate formal consultation if new information reveals unassessed effects, the action is changed in a manner that causes unassessed effects, incidential take is exceeded, or a new species is listed or critical habitat designated. 50 C.F.R. § 402.16(a)-(d). See also Pacificans for a Scenic Coast v. California Dep't of Transp., 204 F. Supp. 3d 1075, 1093 (N.D. Cal. 2016) (Reinitiating consultation is required if any one of the four triggering conditions are satisfied) (*citing Cottonwood*, 789 F.3d at 1088).

D. Magnuson-Stevens Act

The Magnuson-Stevens Act (MSA) established procedures to identify, conserve, and enhance Essential Fish Habitat (EFH) for species regulated under a federal Fisheries Management Plan. 16 U.S.C. §§ 1801 *et seq.* The MSA requires consultation with NMFS on all actions, including proposed actions, which may adversely affect EFH. 16 U.S.C. § 1855(b)(2). To "adversely affect" means any impact that reduces the quality and/or quantity of EFH, and may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey or reduction in species fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. 50 C.F.R. § 600.810. When NMFS is consulted on impacts to EFH under this act, it must "recommend to such agency measures that can be taken by such agency to conserve such habitat," and should the action agency fail to adopt those measures it must explain its reasons for not following those measures. 16 U.S.C. § 1855(4).

may avoid formal if during informal consultation the expert agency concurs in writing that, while the agency action in question "may affect" a species or habitat, that action is nonetheless "not likely to adversely affect" them. 50 C.F.R. §§ 402.13(a), 402.14(b)(1); *Pac. Rivers Council v. Thomas*, 30 F.3d 1050, 1054 n.8 (9th Cir. 1994).

III. COMMENTS SPECIFIC TO NWP 48 FOR COMMERCIAL SHELLFISH AQUACULTURE

The Corps has not cured the deficiencies in this permit or supporting Decision Document and should not issue NWP 48 as written. Because the continued lack of support for the Corps' conclusion that NWP 48 will have only minimal individual or cumulative adverse impacts, and its continued failure to comply with NEPA, adoption of NWP 48 as proposed is unlawful under *Coalition to Protect Puget Sound Habitat v. U.S. Army Corps. Of Engineers*, 417 F.Supp.3d 1354 (W.D. Wash. 2019); 2020 WL 3100829 (W.D.Wash. 2020) (vacating permit and remanding to Corps to issue lawful permits after compliance with CWA and NEPA). Further, based on impacts from NWP 48-authorized operations in other parts of the country, NWP 48 should not be issued at all.

A. 2020 NWP 48 Will Have More Impact Than 2017 NWP 48 And More Than Minimal Individual and Cumulative Impact.

The Corps is proposing to remove the designation of "new" operations, including its 100year lookback rule for defining a "new" operation. The 100-year lookback was an inadequate definition for a "new" operation, given that it would mean almost no operations are "new" in Washington even if the area was recovered to a more natural state. However, removing *any* distinction for new operations, with the ½ acre limit of impacts to submerged aquatic vegetation, will result in *more* impacts. The Corps does little to justify this, given that it required this limit merely 3 years ago to ensure that impacts from NWP 48 would be no more than minimal. Allowing unlimited impacts to seagrasses will result in more than minimal cumulative impacts. Given that the Corps failed to support its minimal effects determination for 2017 NWP 48, *Coalition to Protect Puget Sound Habitat*, 417 F.Supp.3d 1354, and the Corps now proposes to *further lift* restrictions, it is unclear how the Corps can justify this permit.

The Corps' new Decision Document does not support its minimal effect determination under the CWA. The Corps fails to fully assess direct and cumulative impacts from commercial shellfish aquaculture in the following ways:

- Throughout the Environmental Consequences, Public Interest, and 404(b)(1) Guidelines Analysis, the Corps acknowledges some negative impacts, but then fails to assess them and instead focuses only on positive impacts. For example, despite the impacts from mechanical and hydraulic harvesting, these activities are barely mentioned, Dec. Doc. at 50, 62, let alone their harmful impacts assessed to the same degree as the supposed benefits from shellfish aquaculture. None of these sections are compliant with CWA and its regulations.
- Failure to meaningfully assess cumulative impact of tens of thousands of acres of commercial shellfish aquaculture on aquatic environment, despite acknowledging impacts to seagrass and wildlife and including *no limits* to these impacts (indeed removing the only quantitative limit of impacts to ½ acre of submerged aquatic vegetation). Dec. Doc. at 53 (asserting DEs will analyze cumulative impacts). Indeed, even the number of impacted acres is unclear. First the Corps says 13,360 acres will be

impacted total, *id.* at 81, and then asserts that a total of 40,080 acres may be impacted. This is a large disparity and goes to show how rushed this analysis is, and highlights the need for the Corps to take its time and conduct an *actual* cumulative impacts analysis before issuing another NWP 48. For the rest of the cumulative impacts section, the Corps starts with a conclusion that no compensatory mitigation will be needed to avoid cumulative effects, *id.* at 81, but then discusses stream restoration at length (despite this being *marine* shellfish aquaculture), and finishes with the assurance that compensatory mitigation required by DEs is expected to restore aquatic functions and reduce incremental contribution to cumulative effects. *Id.* at 87. It is unclear how mitigation can both be unnecessary *and* something the Corps is relying on to avoid cumulative impacts assessment conducted by Seattle District staff (Draft CIA) and go from there.

- Repeatedly defers to District Engineers to condition NWP 48 to ensure only minimal impacts, but must start with a "national decision document that actually evaluates the impacts of the proposed activity in light of any regional conditions imposed." *Coalition to Protect Puget Sound Habitat*, 417 F.Supp.3d at 1366. Corps cannot continue to support its minimal effects determination by punting to DEs.
- Fails to assess impacts of pesticides and plastics, Dec. Doc. at 49, 59, despite their use • by some commercial shellfish aquaculture and not being prohibited under NWP 48. "The Corps' decision to ignore the foreseeable uses and impacts of pesticides in the activities it permitted on a nationwide basis does not comport with the mandate of NEPA or with its obligations under the CWA. Having eschewed any attempt to describe the uses of pesticides in commercial shellfish aquaculture or to analyze their likely environmental impacts, the decision to permit such activities through NWP 48 cannot stand." Coalition to Protect Puget Sound Habitat, 417 F.Supp.3d at 1364. "The CWA requires the Corps to make minimal adverse effect findings before issuing a general permit. If, as appears to be the case with regards to the discharge of plastics from the permitted operations, the Corps is unable to make such a finding, a general permit cannot issue. The Corps has essentially acknowledged that it needs to individually evaluate the impacts of a particular operation, including the species grown, the cultivation techniques/gear used, and the specific location, before it can determine the extent of the impacts the operation will have." Id. at 1366 n.10.
- Fails to assess impacts against real baseline, sweeping aside as only a small portion of human activities, so having only "minor incremental change to current environmental setting." Dec. Doc. at 46. *But see Coalition to Protect Puget Sound Habitat*, 417 F.Supp.3d at 1364 (The Corps must analyze the individual and cumulative impacts of the proposed activity against the environmental baseline, not as a percentage of the decades or centuries of degrading activities that came before.").
- Claims to have no duty to use any quantitative data, Dec. Doc. at 42, but the Corps has issued NWP 48 since 2007 and in Washington has required PCNs for operations to be authorized, and should be able after all these years to provide *some* quantitative data about loss of seagrasses, natural habitats, etc.

- Claims "standards and best management practices" can reduce impacts, but fails to explain what these are and how they will mitigate impacts. Dec. Doc. at 48, 57. Similarly, cites "operational standards" that can reduce negative effects (like "stocking densities, rotational practice, biosecurity measures") but fails to explain them or support their efficacy, or require them. *Id.* at 61.
- Appears to include only one significant new study to support determination, NRC 2010, but fails to grapple with information supplied by commenters in 2017 (and before) showing the harmful impacts of shellfish aquaculture. This publication was apparently available for the last two iterations of NWP 48 and was not relied on until now, and the Corps fails to include any more up-to-date information about the specific places NWP 48 will be used, which is overwhelmingly Washington. Moreover, the Corps does not actually conduct analysis urged by NRC 2010, which for instance includes a chapter on carrying capacity. The Corps appears to have done no modeling for the carrying capacity of Washington's bays and inlets for intensive shellfish aquaculture to actually determine whether 30,000-50,000 acres is too much.
- Ignores that impacts to submerged aquatic vegetation will be ongoing, not allowing recovery, when activities are ongoing. As noted above, recovery may not be possible for eelgrass, and as seen in Puget Sound over the last decade, aquaculture has reduced eelgrass. Claims that shellfish aquaculture can "coexist" with seagrass at "low densities" but fails to explain what low or high density shellfish aquaculture *means*, or how it is possible that 42,000 geoduck tubes per acre is "low density" shellfish aquaculture. Dec. Doc. at 51-52.
- Continues to look only at the "landscape level" (despite not conducting real cumulative impacts analysis), Dec. Doc. at 60, but Corps cannot ignore local impacts at the site level. 40 C.F.R. § 230.11(e) ("Consideration shall be given to the effect at the proposed disposal site of potential changes in substrate characteristics and elevation, water or substrate chemistry, nutrients, currents, circulation, fluctuation, and salinity, on the recolonization and existence of indigenous aquatic organisms or communities."); *Coalition to Protect Puget Sound Habitat*, 417 F.Supp.3d at 1359-60 ("Ignoring or diluting site-specific, individual impacts by focusing solely on a cumulative, landscape-scale analysis is not consistent with the governing regulations.").
- Still relies on Dumbauld (2015) to claim that impacts to eelgrass are minor/temporary, but that study looked only at one type of shellfish aquaculture (oyster) in one water body (Willapa Bay), and cannot be extrapolated for all types of shellfish aquaculture in all places across the country, much less for all parts of Washington. *Coalition to Protect Puget Sound Habitat*, 417 F.Supp.3d at 1361 ("the 2015 Dumbauld and McCoy paper cannot reasonably be interpreted as evidence that seagrass is only minimally impacted by commercial shellfish aquaculture."). Corps fails to grapple with losses/lack of recovery of seagrasses in Puget Sound, despite statewide "no net loss" policy.
- Reliance on general conditions (e.g. Dec. Doc at 66-67, concluding that General Conditions 2, 3, 4, 5 will protect indigenous species movement, spawning areas, and

migratory birds) fails to explain how they apply to shellfish aquaculture, how they will be used and be effective to mitigate harms. Moreover, the Seattle District staff have stated that "[i]n practice it is uncertain whether any of the general conditions would minimize effects of the action. Historically, these conditions have not been invoked to restrict activities under NWP 48." Draft CIA at 6.

- Discounts impacts to recreational or aesthetic values on basis that commercial private activities have more "right" to these areas. Fails to account for impacts to recreational or wildlife values, including tourism values to community. Dec. Doc. at 68.
- Claims commercially-reared bivalves improve water quality but cite no support for this claim being true in any waterbody in Washington. Dec. Doc. at 69-70. Fails to assess water quality impacts by deferring to DEs and CWA 401 certifications, but impacts to water quality must be assessed before granting NWPs.
- Continues to rely on reasoning that shellfish aquaculture is a minor subset of human activities, Dec. Doc. at 46, contrary to CWA (and NEPA) requirements. *See Coalition to Protect Puget Sound Habitat*, 417 F.Supp.3d at 1364 ("To the extent the Corps' minimal impacts determination is based on some sort of comparison between the environmental impacts of shellfish aquaculture and the environmental impacts of the rest of human activity... the analysis is inadequate."). As the district court said in its order finding NWP 48 unlawful, "[t]he Corps must analyze the individual and cumulative impacts of the proposed activity against the environmental baseline, not as a percentage of the decades or centuries of degrading activities that came before." *Id.*

The Corp fails to support its minimal impact determination for NWP 48 and cannot adopt it as proposed without further support.

B. The Corps' Environmental Assessment/FONSI Is Not Supported; Environmental Impact Statement Required.

The Corps drafted the Decision Document including its purported EA. However, this document falls far short of the Corps' NEPA duties, and given substantial questions as to significant impact, an EIS is required. The EA is deficient as follows:

- No purpose and need statement. EAs must include a discussion of the need for the proposal. 40 C.F.R. § 1508.9(b). Without this discussion, the public cannot know the scope of potentially reasonable alternatives.
- Inadequate alternatives. The alternatives are the "heart" of the NEPA analysis, and they are required in an EA, including a "no action" alternative and other reasonable alternatives. *Id.*, § 1508.25(b). The only meaningfully considered alternative is the Corps' proposed NWP 48. While the Corps lists the "no action" alternative, it barely analyses it, strangely concluding that it would somehow have *more substantial* adverse enviro consequences, despite there being no limits—quantitative or otherwise—on NWP

48 operations. Dec. Doc. at 54-55. The "national modification" alternative is not an alternative, but rather the proposed 2020 NWP 48. The "regional modification" alternative is also not a real alternative as it includes no conditions or changes from the proposed NWP 48, leaving it entirely open to potential conditions from regions or DEs. Thus, the Corps did not consider any other alternatives, and this is not a reasonable range. See Muckleshoot Indian Tribe v. U.S. Forest Serv., 177 F.3d 800, 812 (9th Cir. 1999); 'Ilio'ulaokalani Coalition v. Rumsfeld, 464 F.3d 1083, 1101 (9th Cir. 2006).

- Mitigation of Impacts. Any mitigation measures used to show that an activity will not • be "significant" (and thus require an EIS) must be adequately explained in detail and be enforceable. The Corps relies heavily on mitigation at the District level, but it fails to actually describe the possible effects (direct, indirect and cumulative) from shellfish aquaculture activities or how these unknown mitigation measures will actually avoid more than minimal adverse impacts. These shellfish activities have been permitted through NWPs since 2007, but the Corps makes no effort to provide information to the public of the impacts from these past permitted activities, possibly because the Corps did not have any system in place to actually monitor and evaluate these impacts (despite this requirement from previous nationwide programmatic ESA consultation in 2012-2014). While the Corps relies on to-be-determined regional conditions to mitigate any impacts and therefore make the NWP impacts minimal, it does not explain what kind of conditions might mitigate the potential adverse impacts. Nor does it provide any baseline that is relevant to commercial shellfish aquaculture as opposed to the general loss of wetland habitat nationwide (while shellfish will be grown in marine intertidal areas). The Corps also relies on the general conditions attached to the NWP to minimize impacts, however many of these general conditions are so vague as to be basically useless (i.e. general condition 23 requiring permittees to minimize and avoid impacts). How will the Corps ensure that permittees using NWP 48 for shellfish aquaculture activities will follow this condition? The Corps provides no guidance or concrete guidelines for how permittees can actually achieve the general conditions on which it relies to mitigate any more-than-minimal adverse impacts. Further, any individual mitigation measures will only be attached if a permittee is required to submit a PCN, and given the proposed conditions, that will likely be few and far between. The Corps is proposing to remove both PCN thresholds for this NWP, as well as the paragraph that identifies the additional information that permittees must submit with NWP 48 PCNs. This effectively removes almost all PCN requirements and so it is very unlikely that District Engineers will be able to effectively attach any individual mitigation measures under the proposed NWP 48.
- Direct, Indirect, and Cumulative Impacts. For all the same reasons the Corps fails to support its CWA minimal effects determination, it has also failed to assess direct, indirect, and cumulative impacts under NEPA.
- **Significance Determination**. The Corps fails to discuss the context and intensity factors that might indicate that this proposed NWP will have a "significant impact to

the human environment" and thus require an EIS. But several of the intensity factors are implicated here: shellfish aquaculture is controversial in Washington (and elsewhere), and as acknowledged by the Corps, there are possible effects on the human environment that are highly uncertain or involve unique or unknown risks. Dec. Doc. at 43. Because this permit would affect tens of thousands of acres of shoreline and estuarine aquatic environments, it has the potential to be cumulatively significant, particular when added to the other impacts and stressors to these regions. Any one of these intensity factors alone triggers the need to perform an EIS.

C. Activities Not Similar in Nature or Impact.

The Corps has not supported a determination that the activities authorized under NWP 48 are "similar in nature" as required by 33 U.S.C. § 1344(e)(1), and similar in "impact upon water quality and the aquatic environment" by 40 C.F.R. § 230.7(a)(1). *See, e.g., Nw. Envtl. Def. Ctr. v.* U.S. *Army Corps of Eng'rs*, 2013 WL 1294647, at *4 (D. Or. Mar. 27, 2013) (Corps violated CWA by failing to explain why general permit for gravel mining on river was appropriate, including how activities and impacts were similar in nature). As noted above, there is great variety to the types of bivalve aquaculture practiced, and the impacts to various parts of Washington (not to mention the rest of the county). *Coalition to Protect Puget Sound Habitat*, 417 F.Supp.3d at 1362 ("These variations gave rise to a wide array of effects on the aquatic habitat."); *id.* at 1366 ("Faced with incredible diversity in both the environment and the activities permitted under NWP 48, the Corps effectively threw up its hands and turned the impact analyses over to the district engineers.").

The Corps' analysis supporting its minimal effects determination does not address the myriad shellfish aquaculture activities or their various impacts. In particular, the Decision Document barely mentions geoduck aquaculture, despite it having different practices and impacts than oyster culture, which also varies widely between on-bottom culture, net/bag/rack culture, and long-lines. Some shellfish operations in Willapa Bay/Grays Harbor spray herbicides to kill eelgrass as part of their operations. These various types of operations and equipment have different impacts depending on the water body.

As the Court stated in *Coalition to Protect Puget Sound Habitat*, "[i]n issuing NWP 48, the Corps has opted to interpret the "similar in nature" requirement of 33 U.S.C. § 1344(e)(1) broadly so that all commercial shellfish aquaculture activities in the United States could be addressed in a single nationwide permit. That choice has made assessing the impacts of disparate operations difficult: the Corps essentially acknowledges that the permitted activity is performed in such different ways and in such varying ecosystems that evaluating impacts on a nationwide level is nearly impossible." Before making the same mistake, the Corps should consider whether certain types of shellfish aquaculture may actually be similar enough in nature and impact to warrant a NWP. As written, this permit does not comply with either requirement. 33 U.S.C. § 1344(e)(1); 40 C.F.R. § 230.7(a)(1).

D. CWA Section 404 Jurisdictional Activities.

Shellfish aquaculture involves many activities that meet the definition of discharge of dredge or fill. 33 C.F.R. § 323.2. Aquaculture is not exempt from CWA permitting under CWA § 404(f).⁶² These activities include, but are not limited to, graveling/frosting, re-leveling the substrate (including harrowing and raking), weighing down bags with gravel, burying bags or canopy net edges with dredged or fill material, and mechanical or hydraulic harvesting. Seeding can involve activities such as the application of gravel or crushed shells to harden the ground involves discharge of fill material. 33 C.F.R. § 323.2; see Coeur Alaska, Inc. v. Se. Alaska Conservation Council, 557 U.S. 261, 275 (2009) (slurry fell "well within the central understanding of the term 'fill," because it was listed in the regulation's examples). For bag culture, gravel and/or shell fragments may be added to the bags, which are held in place with metal stakes. Bags may also be placed in shallow trenches during low tide and allowed to become buried in the substrate. Digging of ditches constitutes dredging. Avoyelles Sportsmen's League, Inc. v. Marsh, 715 F.2d 897, 925 (5th Cir. 1983). Adding gravel or shell to bags also implicates § 404 even if the bags themselves do not qualify as fill material. See United States v. Sweeney, No. 217CV00112KJMKJN, 2020 WL 5203474, at *26 (E.D. Cal. Sept. 1, 2020) (citing Corps enforcement letter classifying concrete inside a sunken barge as fill material even where the barge was not). To the extent geoduck tubes constitute fill material, are installed with machinery, or are structures that change the bottom elevation of the water, they are also subject to CWA § 404. 33 C.F.R. § 323.2. Maintenance activities may include mud or sand removal, and when mud or sand are removed, they are dredged material. 33 C.F.R. 323.2(c). If the dredged material is discharged back into the water, it requires a permit unless the fallback is incidental. Id. at 323.2(d)(1). Harrowing or re-leveling the surface to, for example, bring shellfish to the surface, is a § 404 activity. Harvesting shellfish usually involves dredging and discharge of dredged material under 33 C.F.R. § 323.2. Dredge bags, for example, have a leading edge (blade) consisting of a steel frame with teeth and a steel mesh collection bag attached to the frame which loosens the shellfish and guides them into the bags. Finally, wet storage is a temporary

⁶² The Seattle District Corps website notes that there is no 404(f) exemption for commercial shellfish aquaculture. U.S. Army Corps of Engineers, *Shellfish Aquaculture Frequently Asked Questions*, Seattle District Website, at Permitting FAQ A.1,

https://www.nws.usace.army.mil/Missions/Civil-Works/Regulatory/Shellfish-Aquaculture. This is because "EPA has the final authority to interpret Clean Water Act Section 404(f) exemptions" and has not yet done so for shellfish aquaculture. *Id.; see* EPA, *Memorandum of Agreement: Exemptions Under Section* 404(f) of the Clean Water Act, at I, https://www.epa.gov/cwa-404/memorandumagreement-exemptions-under-section-404f-clean-water-act (stating Attorney General opinion gives EPA "the ultimate authority under the CWA to determine . . . the application of section 404(f) exemptions"). Aquaculture is not properly considered normal or established "farming," as aquaculture is not like terrestrial farming. Moreover, Section 404(f) provides only "a narrow exemption for agricultural and silvicultural activities that have little or no adverse effect on the nation's waters." *Avoyelles Sportsmen's League, Inc. v. Marsh*, 715 F.2d 897, 926 (5th Cir. 1983) (citing legislative history). As stated above, shellfish aquaculture can have more than minimal adverse effects on the nation's waters.

storage tank that maintains live shellfish after they have been harvested; the intake or outfall structures (pipes) associated with wet-storage tanks implicate § 404.

Even for activities that do not directly result in discharge of dredge or fill material, the Corps must document secondary effects, and has the authority to impose conditions reasonably related to the purpose of CWA permits. First, the Corps' regulations require it to make a "determination of *secondary effects* on the aquatic ecosystem." 40 C.F.R. § 230.11 ("Secondary effects are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final section 404 action is taken by permitting authorities."). The §404(b) guidelines require secondary effects to be considered prior to issuing a general permit. *Wyoming Outdoor Council Powder River Basin Resources Council v. U.S. Army Corps of Engineers*, 351 F.Supp.2d 1232, 1255 (D. Wyo. 2005) (finding the Corps' cumulative effects determination for a general permit was unlawful, in part, because it failed to evaluate the secondary effects to non-wetland aquatic environments). *See also Fox Bay Partners v. U.S. Corps of Eng'rs*, 831 F. Supp. 605, 609-10 (N.D. Ill. 1993) (upholding the Corps' denial of a private marina project based on its evaluation of the cumulative and *secondary* impacts, including increasing boat traffic in an already heavily trafficked area).

Second, the Corps has authority to impose conditions that are "reasonably related" to the purpose of the permit (here, commercial shellfish aquaculture). United States v. Mango, 199 F.3d 85, 93 (2d Cir. 1999) (citing the Corps' own regulations that interpret the CWA authority to issue permits as including conditions directly or *indirectly* related to the discharge). The court in *Mango* found that the Corps' regulations giving it authority to include indirectly related conditions to a Section 404 permit were reasonable based on the CWA's mandate to consider the effect of discharges "on human health or welfare," "ecosystem diversity," and "esthetic, recreation, and economic values." Id.; see also Nat'l Ass'n of Home Builders v. U.S. Army Corps of Eng'rs, 453 F. Supp. 2d 116, 134 (D. D.C. 2006) (holding that "the requirement to establish and maintain vegetated buffers when practicable is reasonably related to the discharges of dredged or fill material."); Save Our Sonoran, Inc. v. Flowers, No. CV-02-0761-PHX-SRB, 2006 WL 1160191, at *16-17 (D. Ariz. May 2, 2006) (Corps modified permit imposing specific mitigation requirements for removal of upland vegetation were "reasonably relate[d] to the permitted discharge and are within the Corps' jurisdiction to impose); WaterWatch of Oregon v. U.S. Army Corps of Eng'rs, CIV. NO. 99-861-BR, 2000 WL 1100059, at *9 (D. Or. June 7, 2000) (conditions on the construction of water pumping stations regarding the operation of these stations were reasonably related to the purpose of the permits). Thus, even if the Corps determines that some shellfish aquaculture activities do not constitute discharge of dredge or fill, it must still document them and consider whether to condition them as reasonably related to the discharge activities. All shellfish aquaculture activities are reasonably related to the jurisdictional ones, as they would have no purpose without each other and are completely interrelated/intertwined.

E. The Corps Must Comply With ESA Section 7 and MSA Prior to Issuing NWP 48.

The Corps must consult if its proposed issuance of NWP 48 may affect listed species or their critical habitat. Rather than comply with ESA Section 7 (as it has in past years for nationwide permits), the Corps reiterates its 2017 position that it does not have to consult on the NWPs before issuing them because it is requiring individual consultation under General Condition 18. This position is not based on any science or legally justified (as explained above Section 7 clearly requires consultation *before* the action and the trigger for consultation is very low). Rather, the Corps Regulatory Program Manager acknowledged that "for the 2017 NWPs, *we would have to do a new consultation*," but instead stated that the Corps could make a "no effect" determination to avoid programmatic consultation and "[w]e could continue to make the national 'no effect' determination for each NWP reissuance until it is challenged in federal court and a judge rules against the Corps. If we lose in federal court, then we would start doing the national programmatic consultations again." ⁶³ That is exactly what happened. *N. Plains Res. Council v. U.S. Army Corps of Eng*'rs, 454 F. Supp. 3d 985, 994 (D. Mont. 2020) (holding that the Corps violated the ESA by failing to programmatically consult on the issuance of NWP 12).

NWP 48 more than meets the low threshold for consultation as it "may affect" listed species: commercial shellfish aquaculture impacts water quality, sediments/benthos, and habitat/food (like eelgrass) for ESA-listed species. See supra (shellfish aquaculture impacts). It overlaps directly with habitat (including designed critical habitat) for numerous species. In Washington where the bulk of NWP 48 authorizations are, this is abundantly clear and the Seattle District has previously conducted programmatic consultation (resulting NMFS biological opinion found likely adverse impacts to five fish species).⁶⁴ However, that consultation does not cover all of NWP 48, either as adopted in 2017 or as proposed now: it was limited to Washington, and only included a certain number of acres of existing commercial aquaculture in a "footprint," limited new acres, and only operations that were limited to several dozen Conservation Measures, and those that did not use pesticides. As proposed, NWP 48 goes far beyond these limitations, covering unlimited new operations without any conditions to protect seagrass and other sensitive habitats and species, including no acreage limits or any prohibition on pesticide use. If the Seattle District seeks to adopt NWP 48 again—which it cannot do legally under CWA—it will at minimum need to reinitiate consultation based on the mismatch between NWP 48 and the prior programmatic consultation. 50 C.F.R. § 402.16(a)-(d). But before getting to the district level, the Corps must consult on NWP 48 prior to issuance.

⁶³ Email from David Olson (Jan. 17, 2014).

⁶⁴ NMFS Endangered Species Act Section 7 Formal Biological Programmatic Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Shellfish Aquaculture Activities in Washington State (2016) (2016 BIOP), <u>https://www.nws.usace.army.mil/Portals/27/docs/regulatory/160907/NMFS_2016_09-</u> <u>02_WA%20Shellfish%20Aquaculture_WCR-2014-1502.pdf</u>.

The Corps must also consult on a nationwide programmatic basis with NMFS under the MSA, 16 U.S.C. § 1855(b)(2), because Essential Fish Habitat is adversely affected by shellfish aquaculture.⁶⁵ Because the proposed NWP 48 differs substantially from the action previously consulted on, even the Seattle District cannot rely on past EFH consultation.

IV. COMMENTS SPECIFIC TO NWP B FOR OFFSHORE FINFISH AQUACULTURE

A. NWP B Will Have Cumulatively Significant Impacts

NWP B authorizes "the installation of cages, net pens, anchors, floats, buoys, and other similar structures" including structures anchored to the seabed in waters overlying the outer continental shelf, for finfish aquaculture. Beyond the most basic of PCNs, this general permit contains no conditions, quantitative or otherwise, to ensure minimal individual or cumulative impacts. But offshore or open ocean aquaculture is a novel type of activity, and while it has not been practiced on a commercial scale in US federal waters, the impacts on state waters and other nations' experience with this industry indicate that this permit cannot ensure minimal impacts. Indeed, the Corps can point to no reason to use a NWP rather than individual permits other than Executive Order 13921. But Executive Orders cannot change the substantive requirements on the Corps, including the requirement that any NWP only allow "activities are substantially similar in nature and cause only minimal individual and cumulative environmental impacts." 33 C.F.R. § 322.2. Because finfish aquaculture has many harmful impacts, the Corps cannot reasonably determine that such operations will only have minimal impacts, either individually or cumulatively. Further, the opening of federal waters to floating fish factory farms is of great public interest, the Corps must require individual permits for any such operations, and give the public ample ability to comment on specific operations.

The Corps' decision as to whether to issue NWP B must "be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest." 33 C.F.R. § 320.4. This includes a balancing of any benefits with reasonably foreseeable detriments. *Id.* The Corps must consider all factors relevant to a proposal, including in part conservation, economics, aesthetics, general environmental concerns, historic properties, fish and wildlife values, navigation, recreation, water supply and conservation, water quality, and the needs and welfare of the people. *Id.* This includes the cumulative effects of these various impacts. The Corps must also consider "[w]here there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work." *Id.* § 320.4(2).

The Corps' minimal effects determination for NWP B is deficient in the following ways:

• Affected Environment appears to discuss only jurisdictional waters within the coterminous United States and *completely ignores* the federal marine waters (coastal and Exclusive Economic Zone between 3 and 200 miles offshore) that would be impacted by this permit.

⁶⁵ NMFS, 2016 BIOP at 105-111.

- Repeatedly defers to District Engineers to condition NWP B authorizations to ensure only minimal impacts, but must start with a "national decision document that actually evaluates the impacts of the proposed activity in light of any regional conditions imposed." *Coalition to Protect Puget Sound Habitat*, 417 F.Supp.3d at 1366. Corps cannot support its minimal effects determination by punting to DEs.
- Minimal effect determination is based on non-existent "acreage limits or any other quantitative limits in the text of the NWP," general conditions (without explanation), and as-yet-determined regional or activity-specific conditions. A minimal effect determination cannot rest on such conclusory evidence.
- Impacts section describes none of the foreseeable impacts from finfish aquaculture, nor the unknown impacts from this relatively new concept in the U.S. and internationally.
- The Corps estimates that 25 operations may use this permit to install finfish aquaculture operations, but provides no other estimates of how big these operations might be or their impacts from fish escapes, marine wildlife entanglements, pollutants, etc. While exact numbers may not be known, the Corps must at least use the information widely available as to the known impacts of net pen finfish aquaculture, *see supra*.
- No limits imposed; despite briefly describing some potential limits (site selection of well-flushed waters, avoiding seagrass beds, corals, etc) the permit includes none of these requirements.
- Economics section of public interest analysis ignores harm to traditional fishing communities from finfish aquaculture as well as disruptions to other marine-reliant industries, activities, and coastal communities. *See supra*.
- Relies on General Condition 23 to minimize adverse environmental effects, but how can DEs even condition these permits if Corps lacks authority to do so?
- Does not acknowledge potential conflicts between traditional fishing (commercial, recreational) and these facilities.

Further, the Corps has not described in any detail the various types of finfish aquaculture operations in terms of equipment or species, but does not dispute the variety of possible operations and impacts. The Corps has not supported a determination that the activities authorized under NWP B are "similar in nature" as required by 33 C.F.R. § 322.2.

Most disturbingly, the Corps acknowledges harms from escaped fish (genetic, disease transfer), pollutants and nutrients from these facilities, Dec. Doc. at 46-48, 59-61, and admits that they are likely to have adverse effects on the general environment, *id.* at 49-50, but includes no mitigating measures to avoid this known harm. Instead the Corps claims it lacks authority to impose any of the conditions it identifies that may mitigate these serious impacts. *Id.* at 47. But the Corps cannot issue a NWP if it will have more than minimal adverse impacts, so the Corps' alleged lack of authority to condition this permit does not excuse issuing a permit that does not comply with its own regulations. Because the Corps cannot ensure that NWP B will have minimal adverse individual or cumulative impacts, it must not issue the permit.

B. Corps Must Comply With NEPA and EIS Required

The Corps seems to have concluded without any analysis that an EIS is not required. But this document (including the Corps' environmental assessment) falls far short of the Corps' NEPA duties, including the requirement to take a "hard look" at potential impacts. Given substantial questions as to significant impact and existence of several triggering "intensity" factors, an EIS is required. The EA is deficient as follows:

- No purpose and need statement. EAs must include a discussion of the need for the proposal. 40 C.F.R. § 1508.9(b). Without this discussion, the public cannot know the scope of potentially reasonable alternatives.
- Inadequate alternatives. The alternatives are the "heart" of the NEPA analysis, and they are required in an EA, including a "no action" alternative and other reasonable alternatives. Id., § 1508.25(b). The only meaningfully considered alternative is the Corps' proposed NWP B. While the Corps lists the "no action" alternative, it is barely analyzed. The "national modification" alternative is not an alternative, but rather the proposed NWP. The "regional modification" alternative is also not a real alternative as it includes no conditions or changes from the proposed NWP 48, leaving it entirely open to potential conditions from regions or DEs. The Corps also includes a "casespecific on-site" alternative, that is whatever individual conditions a DE might attach to an individual operation. Like the "regional modification" this not a real alternative. The Corps cannot assess and *compare* the impacts of alternatives that do not exist yet. Thus, the Corps did not consider any other alternatives, and this is not a reasonable range. See Muckleshoot Indian Tribe v. U.S. Forest Serv., 177 F.3d 800, 812 (9th Cir. 1999); 'Ilio'ulaokalani Coalition v. Rumsfeld, 464 F.3d 1083, 1101 (9th Cir. 2006). Moreover, this individual conditioning "alternative" merely highlights the need for individual review of offshore finfish aquaculture operations, and the only purpose of a NWP in that case seems to be cutting out the public, as they are unable to review or challenge individual authorizations under NWPs.
- Significance Determination. The Corps fails to discuss the context and intensity factors that might indicate that this proposed NWP will have a "significant impact to the human environment" and thus require an EIS. But several of the intensity factors are implicated here: the size and effect of finfish aquaculture operations authorized under this NWP are controversial; there are possible effects on the human environment that are highly uncertain or involve unique or unknown risks; NWP B has the potential to be cumulatively significant, particular when added to the other impacts and stressors to the ocean; and NWP B may harm threatened or endangered species. Any one of these intensity factors alone triggers the need to perform an EIS. The Corps admits the myriad harms from finfish aquaculture in its public interest review, but fails to describe how those potentially significant harms will be mitigated below the level of significance. An EIS is required.

- **Mitigation**. None required but still mitigation by DEs is relied upon to support insignificant impact finding. NEPA requires agencies to explain mitigation and why it will be effective to reduce impacts below significance.
- Direct, Indirect, and Cumulative Effects. The Corps says it considered the reasonably foreseeable direct, indirect, and cumulative effects of NWP B, Dec. Doc. at 35. But while its assessment lists generally the harmful impacts from finfish aquaculture, it fails to assess these types of impacts to the regions most likely to be affected by operations authorized under the permits. In particular, NOAA has recently announced its designation of southern California and the Gulf of Mexico as "aquaculture opportunity areas" pursuant to the same Executive Order that bred these NWPs.⁶⁶ While this permit is nationwide, the Corps can certainly predict which areas of the federal waters are most likely to see project applications and has a duty to assess the impacts to those regions at the outset, before issuing the permits. While regional Corps offices must conduct further regional analysis, the Corps cannot entirely defer this duty to later piecemeal analysis of "alternatives" other than proposed permit is completely inadequate and conclusion that "no action" would have more significant impacts is illogical and unsupported.

C. Corps Must Comply With ESA and MSA

NWP B would authorize activities that "may affect" marine mammals, birds, and turtles that are listed as endangered or threatened under the ESA, and may adversely affect Essential Fish Habitat under the MSA. ESA Section 7 requires consultation with the Services prior to issuing this permit, and the MSA requires consultation with NMFS. The Corps must do this at the outset, before issuing the permit. For the same reasons as stated above for NWP 48, the Corps cannot defer consultation on these impacts to the individual project level. As one court has already determined, General Condition 18 does not comply with the ESA.

V. COMMENTS SPECIFIC TO NWP A FOR OFFSHORE SEAWEED AND SHELLFISH MARICULTURE

The supporting documentation for this permit suffers from the same deficiencies as described above.

The following changes for NWP A are required to ensure that our marine ecosystems and coastal communities are adequately protected: (1) no facilities should be permitted in or near marine protected areas or sensitive areas, such as essential habitat for seagrass, wild fish, and coral

⁶⁶ On August 20, 2020, NOAA announced the designation of federal waters in the Gulf of Mexico and Southern California regions as Aquaculture Opportunity Areas (AOAs). NOAA, Press Release, NOAA Announces Regions for First Two Aquaculture Opportunity Areas under Executive Order on Seafood (Aug. 20, 2020).

reef; (2) no facilities should be permitted that utilize plastic equipment or inputs such as pesticides, herbicides, or pharmaceuticals; (3) the permits should require extensive documentation of compliance with all design and operation standards, with routine reporting mandates; and (4) the permits should incorporate more rigorous operation, emergency response, and pollution standards, with swift and severe repercussions for noncompliance, including revocation of permits. If the Corps cannot require these measures, it cannot issue the permit.

CONCLUSION

The Corps should not adopt NWP 48, for the same reasons NWP 48 was found unlawful in *Coalition to Protect Puget Sound Habitat v. U.S. Army Corps. Of Engineers*, 417 F.Supp.3d 1354 (W.D. Wash. 2019). Absent lawful regional general permits, the Corps must require individual permits for the remaining shellfish aquaculture operations. The Corps should not adopt the new NWP B for finfish aquaculture in federal waters, because these operations have significant effects and do not met the criteria for minimal individual or cumulative impacts. As to NWP A, if it is to be issued, it must include additional protections to ensure only minimal cumulative impacts. The Corps should defer issuance of any permits until after the transition of administrations, particularly those based solely on Executive Orders.

Sincerely,

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