

SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 404-521-9900

TEN 10TH STREET NW, SUITE 1050
ATLANTA, GA 30309-3848

Facsimile 404-521-9909

July 21, 2021

Submitted via electronic mail

Ms. Kimberly Garvey
Chief, Planning Branch
U.S. Army Corps of Engineers
Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3604
CESAS-Planning@usace.army.mil

**Re: Comments on Draft Environmental Assessment for Brunswick Harbor
Modifications Study and Year-Round Maintenance Dredging**

Dear Ms. Garvey:

On behalf of One Hundred Miles, the Southern Environmental Law Center submits these comments regarding the Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI for the Brunswick Harbor Modifications Study (Draft EA).

In the Draft EA, the Corps proposes to completely eliminate seasonal hopper dredging windows for the first time in decades. As described below, conducting annual maintenance dredging with hopper dredges during the spring and summer months would almost certainly increase loggerhead sea turtle deaths and could potentially lead to population-level impacts. It would also cause significant harm to fisheries and other sensitive species in and around Brunswick Harbor.

While we recognize the need for harbor maintenance and do not suggest that hopper dredging should be banned year-round, we urge the Corps to continue the use of these longstanding seasonal dredging windows. At a minimum, we ask that the Corps prepare an Environmental Impact Statement (EIS) to fully evaluate the impacts of unrestricted hopper dredging. We believe that once the Corps does so, the benefits of continuing the use of seasonal windows will be clear.

I. BACKGROUND

A. **Because hopper dredging is harmful to sea turtles, fisheries, and other coastal wildlife, the Corps has historically limited its use of hopper dredges to winter months**

Maintenance dredging involves the periodic removal of built-up sediment from existing navigational channels in order to keep the channels at their authorized depth. Although there are several methods of dredging available, the Corps typically prefers hopper dredging.

Hopper dredges work by removing sediments with suction pipes—essentially vacuuming up everything on the bottom of the dredged area. Unfortunately, this often includes federally threatened loggerhead sea turtles, which can easily become entrained in the hopper dredge pipes.¹ When this happens, the pipes' rotating blades can cause massive fractures, crushed organs, hemorrhage, and death.² These effects are heightened in late spring, summer, and early fall when there are more sea turtles in southeast shipping channels.³

Hopper dredging also poses threats to other valuable wildlife resources. For example, impacts to fisheries, such as entrainment and increased sedimentation, can be significant.⁴ Like impacts to sea turtles, these effects are amplified during certain times of the year.⁵

¹ Mem. from Mark Dodd, Ga. Dep't of Nat. Res., to Kelie Moore, Ga. Dep't of Nat. Res. (Feb. 22, 2021), at 1-2 (“DNR Mem.”) (provided as Attachment 1); Daphne W. Goldberg et al., *Hopper dredging impacts on sea turtles on the Northern Coast of Rio de Janeiro State, Brazil*, Marine Turtle Newsletter (Oct. 2015) at 17 (provided as Attachment 2); J.L. Miselis et al., *Impacts of sediment removal from and placement in coastal barrier island systems: U.S. Geological Survey Open-File Report 2021-1062*, at 33 (U.S. Geol. Survey and U.S. Fish & Wildlife Serv. 2021) (provided as Attachment 3).

² Goldberg, *supra* n. 1, at 17; *see also* Dena Dickerson et al., *Dredging impacts on sea turtles in the southeastern USA: A historical review of protection*, Proceedings of the 17th World Dredging Congress (2004) (provided as Attachment 4).

³ DNR Mem., *supra* n. 1, at 2; Letter from Rusty Garrison, Wildlife Res. Div., Ga. Dept. of Nat. Res., to Margaret McIntosh, U.S. Army Corps of Eng'rs (Sept. 28, 2020), at 1 (“WRD Letter”) (provided as Attachment 5); Letter from Doug Haymans, Coastal Res. Div., Ga. Dept. of Nat. Res., to Kimberly Garvey, U.S. Army Corps of Eng'rs (Apr. 23, 2021), at 7 (“CRD Letter”) (provided as Attachment 6).

⁴ *See* Letter from Melvin Bell, S. Atlantic Fishery Mgm't Council, to Emily Hughes, U.S. Army Corps of Eng'rs (Oct. 1, 2020) (“SAFMC Letter”) (provided as Attachment 7); S. Atlantic Fishery Mgm't Council, *Policies for the Protection and Restoration of Essential Fish Habitats from Beach Dredging and Filling, Beach Renourishment and Large-Scale Coastal Engineering* (2015) (provided as Attachment 8); Lisa Wickliffe et al., *An Assessment of Fisheries Species to*

To minimize these impacts, federal and state agencies have historically restricted hopper dredging to winter months. At the state level, the Georgia Department of Natural Resources (DNR) has implemented winter dredging windows through the state's Clean Water Act § 401 Certifications and Coastal Zone Management Act consistency determinations.⁶ According to DNR:

[D]ata and decades of experience clearly show that winter dredging windows are the best way to maintain deep water channels in Georgia and minimize mortality of threatened loggerhead sea turtles in hopper dredges. Summer dredging will place nesting female loggerhead sea turtles—and loggerhead recovery efforts generally—at unnecessary risk.⁷

At the federal level, the National Marine Fisheries Service (NMFS) has until recently imposed winter hopper dredging windows through its South Atlantic Regional Biological Opinions, or “SARBOs,” which assess impacts to federally protected species from dredging and related activities at a regional level.⁸ As NMFS recognized nearly three decades ago:

The primary Endangered Species Act (ESA) concern with hopper dredging is the documented take of a significant number of sea turtles.... What has been learned from past dredging episodes is that turtle take cannot be avoided if hopper dredging occurs when turtles are present.⁹

The South Atlantic Division of the Corps also historically recognized the importance of limiting spring and summer dredging by adopting and implementing a protocol establishing a

Inform Time-of-Year Restrictions for North Carolina and South Carolina (NOAA Technical Mem. NOS NCCOS 263), Nat'l Oceanic & Atmospheric Admin. (NOAA) (Oct. 2019) (provided as Attachment 9); A.S. Wenger, et al., *A critical analysis of the direct effects of dredging on fish*, 18 *Fish and Fisheries*, no. 5, 967 (2017) (provided as Attachment 10); Miselis, *supra* n. 1.

⁵ SAFMC Letter, *supra* n. 4, at 2; Wenger, *supra* n. 4, at 978.

⁶ DNR Mem., *supra* n. 1, at 2.

⁷ WRD Letter, *supra* n. 3, at 1.

⁸ See Nat'l Marine Fisheries Serv., *Biological Opinion: Dredging of Channels in the Southeastern United States from North Carolina Through Cape Canaveral, Florida* (Nov. 25, 1991) (“1991 SARBO”) (on file with Nat'l Marine Fisheries Serv.); Nat'l Marine Fisheries Serv., *Biological Opinion: Hopper Dredging of Channels and Beach Nourishment Activities in the Southeastern United States from North Carolina Through Florida East Coast* (Aug. 25, 1995) (“1995 SARBO”) (on file with Nat'l Marine Fisheries Serv.); Nat'l Marine Fisheries Serv., *Biological Opinion: The Continued Hopper Dredging of Channels and Borrow Areas in the Southeastern United States* (Sept. 25, 1997) (on file with Nat'l Marine Fisheries Serv.).

⁹ 1991 SARBO, *supra* n. 8, at 6.

hopper dredging window of roughly December 15 through March 31 to reduce impacts to sea turtles.¹⁰

By all measures, these seasonal dredging windows have been tremendously successful as a mitigation tool, balancing the need for efficient dredging of navigation channels with the protection of sea turtles, fisheries, and other wildlife.¹¹ However, in 2020, a new SARBO (the 2020 SARBO) eliminated the decades-old NMFS-imposed dredging windows.¹² The Corps appears poised to follow suit, proposing unrestricted year-round maintenance dredging for the first time in nearly thirty years.

B. The Brunswick Harbor Modifications Study NEPA Process

The June 2021 Draft EA considers two separate actions: (1) modifications to the harbor turning basin and bend widener to be completed by 2025 and (2) annual maintenance dredging covering over thirty miles of Brunswick Harbor shipping channels for a fifty-year period.¹³

The original draft EA for the Brunswick Harbor Modifications Study, published in June 2020, covered only the first action. That draft noted that a “key assumption” underlying the Corps’ analysis was the Corps would use cutterhead, not hopper, dredges.¹⁴ Indeed, in an appendix to that draft, the Corps described its “minimization measures” for the project as follows:

In order to minimize impacts to T&E species, critical habitats, and marine mammals...the BHMS [Brunswick Harbor Modification Study] proposed to use

¹⁰ See, e.g., U.S. Army Corps of Eng’rs, South Atlantic Division, *Hopper Dredging Protocol for Atlantic Coast: FY 98 - FY 03* (provided as Attachment 11).

¹¹ DNR Mem. *supra* n. 1, at 4; WRD Letter, *supra* n. 3, at 3 (“The USACE has successfully maintained these channels for the last 22 years using winter dredging windows to assist in the recovery of protected species.”); 1995 SARBO, *supra* n. 8, at 10 (finding that seasonal dredging windows have “greatly reduced the rate of sea turtle takes by hopper dredges”).

¹² See Nat’l Marine Fisheries Serv., *South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States* (Mar. 27, 2020) (“2020 SARBO”) (on file with Nat’l Marine Fisheries Serv.).

¹³ U.S. Army Corps of Eng’rs, *Brunswick Harbor Modifications Study, Glynn County, GA: Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI 15* (June 2021) (“Draft EA”), <https://go.usa.gov/xw9Wt>.

¹⁴ U.S. Army Corps of Eng’rs, *Brunswick Harbor Modifications Study, Glynn County, GA: Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI 81* (June 2020) (“2020 Draft EA”), https://www.sas.usace.army.mil/Portals/61/docs/Planning/Plansandreports/Brunswick%20Harbor/Mod.%20Study/BHMS_Draft_IFR-EA_Main_Report.pdf?ver=2020-06-09-065202-900.

the cutterhead dredge method.... Cutterhead dredges are known to have less direct impacts to listed species than other dredge types. Other dredge methods were analyzed and would be too costly to endangered species such as sea turtles and sturgeon....”¹⁵

The Corps hastily added the second action—annual year-round maintenance dredging of thirty miles of shipping channels over a fifty-year period—last month in an apparent response to an ongoing court case challenging the Corps’ 2021 maintenance dredging contract.¹⁶ In early 2021, the Corps solicited bids and entered into a dredging contract for summer 2021 without preparing any new or supplemental NEPA analysis. When One Hundred Miles challenged the Corps’ actions in federal court in Savannah, the federal court preliminarily enjoined the Corps from proceeding with spring and summer hopper dredging without a proper NEPA analysis.¹⁷ Now, rather than conduct the thorough and targeted analysis that is warranted for such a drastic and far-reaching change, the Corps has tacked a rushed and incomplete analysis onto the existing Brunswick Harbor Modifications Study EA—a move that violates both the letter and spirit of NEPA.

II. THE DRAFT EA IS FUNDAMENTALLY FLAWED

For all major federal actions, NEPA obligates the Corps to “take a hard and honest look at the environmental consequences of [its] decisions” at the “earliest reasonable time.”¹⁸ By focusing the agency’s attention on the environmental consequences of its proposed action, NEPA aims to “ensure[] that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.”¹⁹ To this end, an agency’s EA “will pass muster only if it undertook a ‘well-considered’ and ‘fully informed’ analysis of the relevant issues and opposing viewpoints.”²⁰

As described below, the Draft EA here is inadequate in a number of ways: it underestimates or ignores significant harms to turtles, fisheries, and other wildlife; it fails to

¹⁵ Draft EA, *supra* n. 13 at App. H, p. 5; *see also* Draft EA, *supra* n. 13 at App. K, p. 17 (“Using a cutterhead dredge as the USACE plans should minimize dredging impacts to turtles in the water.”); *id.* at 18 (“We recommend the USACE condition the project as they have described for the safety of wildlife and the environment. These conditions include using only cutterhead dredges....”).

¹⁶ *One Hundred Miles v. U.S. Army Corps of Engineers*, 4:21-cv-00134-RSB-CLR (S.D.G.A.).

¹⁷ Oral Order Granting Preliminary Injunction, *One Hundred Miles v. U.S. Army Corps of Engineers*, 4:21-cv-00134-RSB-CLR (S.D.G.A. May 20, 2021).

¹⁸ *Am. Rivers v. Fed. Energy Regulatory Comm’n*, 895 F.3d 32, 49 (D.C. Cir. 2018); 40 C.F.R. § 1501.2(a).

¹⁹ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

²⁰ *Am. Rivers v. Fed. Energy Regulatory Comm’n*, 895 F.3d 32, 49 (D.C. Cir. 2018)

consider reasonable alternatives to year-round maintenance dredging; and it ignores important cumulative impacts.

A. The Corps underestimates impacts to sea turtles

1. Spring and summer hopper dredging will almost certainly kill and injure federally protected loggerhead sea turtles

Spring and summer hopper dredging will almost certainly kill and injure federally threatened loggerhead sea turtles.²¹ As described above, sea turtles can easily become entrained in hopper dredge pipes, causing massive fractures, crushed organs, hemorrhage, and death.²² These effects are heightened during the spring and summer months, when nesting females are congregated in local waters and actively using the Brunswick shipping channels during their inter-nesting periods.²³

Recent history confirms the high likelihood of turtle mortality under these circumstances. In September 2009 (several months earlier than the typical start of dredging in December but still after the majority of adult females had left the area), the Corps conducted a “test case” to determine the feasibility of summer dredging in Brunswick Harbor.²⁴ Within the first nine days of dredging, hopper dredges killed four loggerhead turtles before the project was discontinued.²⁵ During a similar test in Savannah, dredges killed two loggerhead turtles in just six days before the project was shut down.²⁶ This late summer mortality rate was more than *eight times higher* than that of the winter dredging window²⁷—and presumably may have been even more significant if it had taken place during the early summer timeframe.

²¹ See DNR Mem., *supra* n. 1, at 4.

²² *Id.* at 2-6 (describing history of sea turtles takes from hopper dredging); Goldberg, *supra* n. 1, at 17 (collecting studies and noting that hopper dredges cause “physical harm (e.g., massive injuries, fractures, crushed tissues and hemorrhage) and mortality” to sea turtles); Dickerson, *supra* n. 2, at 2 (noting that a total of 508 sea turtle takes by hopper dredges were documented between 1980 and 2003, but that this is likely a “low estimate”); Norton Decl. *supra* n. 2, ¶¶ 13-20 (describing first-hand account of dredging injuries); Miselis, *supra* n. 1, at 33; Transcript of Hearing on Motion for Preliminary Injunction, *One Hundred Miles v. U.S. Army Corps of Engineers*, 4:21-cv-00134-RSB-CLR (S.D.G.A. May 20, 2021) (excerpts provided as Attachment 12).

²³ DNR Mem. *supra* n. 1, at 2, 9.

²⁴ *Id.* at 4.

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

More recently, in Spring 2021, a hopper dredge entrained between five and seven turtles in approximately 24 hours of dredging in Charleston Harbor after the Corps sought permission to dredge outside of historic dredging windows.²⁸

There is no reason to believe turtles will fare any better during this round of spring and summer maintenance dredging. Indeed, according to DNR, “similar results will occur if hopper dredging resumes in summer months.”²⁹

Concerningly, there are no restrictions on the age class or life stage of the turtles allowed to be killed during the dredging process.³⁰ While any loss is unwanted, the take of reproductively active adult females—as is likely during nesting season—would be particularly devastating.³¹ Unlike many species, loggerhead sea turtles do not reach sexual maturity until their early to mid-30s.³² As a result, any adult loggerhead killed would take at least three decades to replace.³³

These losses would come at a high cost. Loggerhead sea turtles are considered threatened and protected under federal and state laws. While annual nesting is slowly increasing, models show that the Northern Recovery Unit population (loggerheads born on nesting beaches from the Florida/Georgia border through southern Virginia) is still only a third to half of the size it was in the 1960s.³⁴ And despite recent high nesting seasons, Georgia experienced record low nesting seasons in the early 2000s.³⁵ That string of low nesting years means that even if current protections and management practices (like dredging windows) are kept in place, Georgia’s loggerhead population is predicted to plateau or even decline for the next two decades as the hatchlings born in the early 2000s reach maturity.³⁶ If dredging windows or other protections are lifted, this decline could be even more precipitous.³⁷

²⁸ Transcript, *supra* n. 22, at 25-26.

²⁹ WRD Letter, *supra* n. 3, at 3.

³⁰ DNR Mem., *supra* n. 1, at 7, 11; CRD Letter, *supra* n. 3, at 7.

³¹ DNR Mem., *supra* n. 1, at 7, 11; CRD Letter, *supra* n. 3, at 7.

³² DNR Mem., *supra* n. 1, at 11.

³³ *Id.*

³⁴ *Id.* at 7; Bryan L. Nuse, et al., *An integrated population model for loggerhead sea turtles in the Northern Recovery Unit* (Oct. 21, 2020) (provided as Attachment 13).

³⁵ DNR Mem., *supra* n. 1, at 9.

³⁶ *Id.*

³⁷ *Id.*; CRD Letter, *supra* n. 3, at 7. In addition, upward trends in nesting abundance do not necessarily translate into an increase in adult female or overall population abundance, and as a result, abundance is often overestimated in management contexts. See Simona A. Ceriani et al., *Conservation implications of sea turtle nesting trends: Elusive recovery of a globally important loggerhead population*, *Ecosphere* (Nov. 25, 2019) (provided as Attachment 14); Paolo Casale

These risks are particularly acute for local and regional loggerhead populations. The Northwest Atlantic Distinct Population Segment (DPS) (the loggerhead population segment analyzed in the 2020 SARBO) includes five distinct recovery units, including the Northern Recovery Unit. The Northern Recovery Unit population makes up only a small fraction of the Northwest Atlantic DPS. Unfortunately, even though it makes up only a small fraction of the population, all six channels targeted by the Corps for spring and summer dredging are located within the Northern Recovery Unit range.³⁸ Because winter dredging results in very few takes, that means that nearly all of the 214 takes allowed under the 2020 SARBO will likely occur within the Northern Recovery Unit range—specifically Georgia, South Carolina, and North Carolina. As a result, these regions will bear a disproportionate level of impacts to local and regional loggerhead populations. As explained by DNR, although the SARBO purports to authorize loggerhead takes at a rate of around one turtle per every 1,000 nests, when you account for the fact that nearly all of these takes will occur within the Northern Recovery Unit range, the actual rate is more than one turtle per every 100 nests—far greater than the take rate contemplated by the 2020 SARBO.

Although the Corps is permitted to incorporate the SARBO into its NEPA analysis, it cannot stop there. In assessing regional and local impacts from this specific project, the Corps is obligated to consider this disproportionate impact. It did not do so in the Draft EA.

2. The Draft EA relies on inaccurate assumptions

The Draft EA relies on inaccurate assumptions to reach its conclusion that spring and summer dredging will have no significant impacts on loggerhead sea turtles. For example, the Corps substantially downplays the significant risks to loggerhead sea turtles, writing:

[Removal of historic dredging windows] may slightly increase risk to sea turtles as more sea turtles may be in the area in the spring, summer or fall because sea turtles are more abundant in the study area during warmer months. However, sea turtles thermoregulate so while those encountered during winter months are less able to avoid interactions with equipment, those encountered during warmer months are able to react quicker. In addition, sea turtles are believed to move

& Simona A. Ceriani, *Sea turtle populations are overestimated worldwide from remigration intervals: Correction for bias*, *Endangered Species Res.* (Jan. 30, 2020) (provided as Attachment 15); Nicole Esteban et al., *How numbers of nesting sea turtles can be overestimated by nearly a factor of two*, *Proceedings Royal Soc’y B: Biological Scis.* (Jan. 23, 2017) (provided as Attachment 16).

³⁸ The Corps has considered spring or summer dredging in six channels: Brunswick Harbor (GA), Savannah Harbor (GA), Charleston Harbor (SC), Wilmington Harbor (NC), Morehead City (NC), and Manteo Entrance Channel (NC). *See* 2020 SARBO, *supra* n. 12, at 327; CRD Letter, *supra* n. 3, at 6.

more throughout the water column in warmer months reducing the time they rest on the bottom and would interact with a dredging equipment.³⁹

As shown above and in the attached scientific literature, data plainly show that hopper dredging during warmer months poses significantly greater risks to loggerhead sea turtles. As explained by the Georgia Department of Natural Resources, the 2009 Brunswick and Savannah Harbor test studies showed that capture rates of sea turtles in Georgia shipping channels were substantially higher during the summer and fall than during winter months, undercutting the idea that capture rates of sea turtles may be lower in the summer due to higher activity rates and less time on the bottom.⁴⁰ The Corps' suggestion otherwise is unsupported by science.

It is also undercut by the Corps' and NMFS' thirty-year practice of restricting hopper dredging to winter months. As a federal court recently put it:

Frankly, it's a stretch to believe that the Corps would have abstained from spring and summer dredging in this critical area for three decades if it did not believe that there was a danger and a significant danger to loggerheads in the area during that time.⁴¹

The June 2021 Draft EA seems to recognize as much. The June 2020 original draft EA recognized that project "[c]onstraints include avoiding significant environmental effects to endangered species" such as loggerhead sea turtles within Brunswick Harbor.⁴² Tellingly, the Corps deliberately removed this language from its discussion of constraints in the June 2021 Draft EA.⁴³

The Corps also suggests that spring and summer hopper dredging will not have a significant environmental impact because it "has been successfully done in other areas when sea turtle abundance was high and did not result in sea turtle take by hopper dredging or take was not higher than timeframes when turtle abundance was low."⁴⁴ However, as discussed above, the weight of the data shows that sea turtle take by hopper dredging is typically substantially higher in spring and summer than in colder months—as demonstrated by this spring's mortalities in Charleston Harbor and the 2009 test studies in Savannah and Brunswick Harbors.

The Corps further dismisses the substantial risks to loggerhead sea turtles by noting:

³⁹ Draft EA, *supra* n. 13, at 109.

⁴⁰ CRD Letter, *supra* n. 3, at 33.

⁴¹ Transcript, *supra* n. 22, at 143.

⁴² June 2020 Draft EA, *supra* n. 14, at 58.

⁴³ Draft EA, *supra* n. 13, at 109.

⁴⁴ *Id.* at 109

USACE has a long history of managing hopper dredging projects without excessive take. Since 1997, no more than six observed lethal loggerhead sea turtle takes have occurred at a single project covered under SARBO.⁴⁵

The Corps misses the point. The reason that there has been minimal take for nearly three decades is because seasonal dredging windows have been in place since 1991. That hopper dredging projects have been conducted without significant take during that period is evidence that hopper dredging windows work—not evidence that they should be eliminated.

The Corps also overstates the value of mitigation measures. Although the Corps suggests that relocation trawling and other measures will mitigate any significant impacts to loggerhead sea turtles, the data does not support this conclusion. As a NMFS biologist recently explained:

I simply do not think that there are good mitigation options for dredging during times and at locations where reproductive females are present This is why the current dredging windows are highly effective—they avoid interactions with significant numbers of reproductive females.⁴⁶

3. The Corps overstates the role of its “risk assessment process” in minimizing impacts to loggerhead sea turtles and other threatened and endangered species

In addition to downplaying the risks of spring and summer dredging, the Corps overstates the role of its pre-construction risk assessment process in setting the dredging schedule. According to the Draft EA, “[t]he Corps proposes to replace historic hopper dredge environmental window with the risk-based adaptive management process outlined in the 2020 SARBO, as detailed in Appendix J of the 2020 SARBO.”⁴⁷ That process purports to “involve[] the consideration of institutional knowledge of particular project sites, the potential effects to ESA-listed species and designated critical habitat, and the use of any current or new best available information.”⁴⁸

Step 1 of the risk-based process requires the Corps to conduct a “pre-construction risk assessment” and “compile a list of projects proposed for the next year and beyond ..., including relevant minimization measures based on the pre-construction risk assessment results.”⁴⁹ Theoretically, this process could allow the Corps to schedule dredging in a way that would

⁴⁵ *Id.* at 112.

⁴⁶ Email from Brian Stacy, Nat’l Marine Fisheries Serv., to Nicole Bonine, Nat’l Marine Fisheries Serv. (Aug. 23, 2018) (provided as Attachment 17).

⁴⁷ Draft EA, *supra* n. 13, at 84; *see also* 2020 SARBO, *supra* note 12, at 69, App. J.

⁴⁸ *See* 2020 SARBO, *supra* note 12, at 69, App. J.

⁴⁹ *Id.*

“minimize the risk to ESA-listed species by considering the risk to ESA-listed species posed by particular projects based on project-specific timing, location, and equipment used, as appropriate.”⁵⁰

To our knowledge, however, the Corps has not conducted any pre-construction risk assessment for its proposed maintenance dredging. Indeed, when SELC submitted a FOIA request seeking all documents or communications related to the pre-construction risk assessment, the Corps responded that it had no responsive documents.⁵¹

Instead, it appears that the Corps intends to delegate decisions about scheduling to dredging contractors—not species experts, as they suggest in the Draft EA. As the Wilmington District recently explained, “Under this year-round alternative, hopper dredging would occur when a hopper contract dredge is available and not confine dredging impacts to any particular time of year.”⁵² The Chief of Navigation for the Savannah Division confirmed, “we are dependent on the contractor’s schedule to schedule and perform the work.”⁵³ He later added that the 2021 schedule was based on the dredging contractor’s “first availability or his desire.”⁵⁴

The Corps also apparently delegates decisions about dredging equipment to dredging contractors rather than species experts. After acknowledging that cutterhead dredges (which are significantly less harmful to sea turtles and other marine life) were an option, the Chief of Navigation explained that the Corps “ultimately [tries] to include the greatest flexibility for the industry to select which method of dredging they would like to use.”⁵⁵

B. The Corps entirely ignores the impacts of spring and summer hopper dredging on fisheries

Hopper dredging also poses threats to economically and recreationally important fisheries on Georgia’s coast.⁵⁶ Many of these threats are more severe during the egg and larval stages. For example:

⁵⁰ *Id.*

⁵¹ Letter from Terry G. Peters, District Counsel, U.S. Army Corps of Eng’rs, to Robert Sherrier, S. Env’t L. Ctr. (Mar. 29, 2021) (on file with U.S. Army Corps of Eng’rs).

⁵² U.S. Army Corps of Eng’rs, *Wilmington Harbor and Morehead City Harbor Dredging and Bed Leveling: Final Environmental Assessment and Finding of No Significant Impact 75* (Feb. 2021).

⁵³ Transcript, *supra* n. 22, at 87.

⁵⁴ *Id.* at 90.

⁵⁵ *Id.* at 78-79.

⁵⁶ See SAFMC Letter, *supra* n. 4; SAFMC Policies, , *supra* n. 4; Wickliffe, , *supra* n. 4; Wenger, *supra* n. 4; Miselis, *supra* n. 1.

- Hopper dredges can entrain fish in the dredge's suction pipes. Although all life stages of fish are vulnerable to entrainment, the risk is higher for early life stages like eggs and larvae that move passively through the water.⁵⁷
- Hopper dredging increases the amount of suspended sediments in the water. Fish often avoid areas with high concentrations of suspended sediments because the suspended sediments can affect feeding patterns and predator avoidance behavior.⁵⁸ This is particularly true for larval fish, which rely more on visible cues and therefore may have more difficulty finding suitable habitats when suspended sediments limit visibility.⁵⁹ Indeed, the U.S. Department of the Interior has specifically cautioned that high concentrations of suspended sediments are known to cause mortality in the eggs and larvae of economically important fish along the Atlantic Coast.⁶⁰
- Suspended sediments may also cause physiological damage to fish. Suspended particles can coat and damage the respiratory surface of a fish's gills or block the flow of water across them, leading to oxygen deprivation, osmoregulatory stress, and mortality.⁶¹ Again, early life stages like eggs and larvae are typically more sensitive to these types of physiological damage.⁶²
- Hopper dredging also affects the level and type of noise in dredged areas. This dredging noise may mask other sounds used by some larval fishes to find suitable habitat.⁶³

Because early life stages are more vulnerable to these and other risks, the harm caused by dredging can vary significantly by season, with greater impacts during key reproductive and recruitment time periods that often fall in the spring and summer—a fact that the Corps entirely fails to consider.

This is a particular concern for Brunswick Harbor. The South Atlantic Fishery Management Council (SAFMC), which is responsible for the conservation and management of fish stocks within the federal 200-mile limit of the Atlantic off the coasts of North Carolina, South Carolina, Georgia and east Florida, has identified essential fish habitat (EFH) for brown shrimp, white shrimp, pink shrimp, gag grouper, gray snapper, black sea bass, Spanish mackerel,

⁵⁷ Miselis, *supra* n. 1, at 33; Wenger, *supra* n. 4, at 978.

⁵⁸ Miselis, *supra* n. 1, at 34; Wenger, *supra* n. 4, at 973.

⁵⁹ Miselis, *supra* n. 1, at 35.

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.* at 36.

summer flounder, and several shark species in or around the project area.⁶⁴ In addition to serving as EFH for these species, these areas provide habitat for numerous other commercially and recreationally important species, including red drum, southern flounder, Florida pompano, spot, and blue crab.⁶⁵ Some of this habitat has also been designated as “habitat areas of particular concern” (HAPC), which are “subsets of [essential fish habitat] that ... [are] rare, stressed by development, provide important ecological functions for federally managed species, or are especially vulnerable to anthropogenic (or human impact) degradation.”⁶⁶

According to the SAFMC, spring and summer maintenance dredging can be detrimental to many of these fisheries for the reasons listed above. In fact, during the NEPA process for a related proposal to remove winter dredging windows in North Carolina, the SAFMC warned:

[Spring and summer dredging] would likely impact larvae and early juvenile of Gag Grouper (*Mycteroperca microlepis*), Gray Snapper (*Lutjanus griseus*) and other finfish The proposed action could also impact economically important crustacean species such as Pink Shrimp (*Farfantepenaeus duorarum*), Brown Shrimp (*Farfantepenaeus aztecus*), and White Shrimp (*Litopenaeus setiferus*) that spawn offshore in the winter and recruit to nearby estuaries in spring (April – June). Allowing hopper dredging and bed leveling outside of the current December 1 through April 15 window would increase risk of injury, mortality, or poor recruitment in these fisheries. Allowing these activities during the spring and summer months would potentially impact Council-managed species that are in critical early life stages in, and adjacent to, the project area at these times.⁶⁷

Despite these documented concerns from North Carolina, the Corps has done no analysis of how or if shifting dredging away from winter months would impact these economically and recreationally important fisheries in Georgia.

C. The Corps does not consider seasonal impacts to other sensitive species

The Corps also overlooks the impacts of spring and summer hopper dredging on other sensitive species, including manatees, horseshoe crabs, and benthic organisms. Like with sea

⁶⁴ Draft EA, *supra* n. 13, at 30-31.

⁶⁵ Letter from Virginia Fay, Nat’l Marine Fisheries Serv., to Col. Daniel Hibner, U.S. Army Corps of Eng’rs (July 8, 2020) (attached to Draft EA as Appx. G).

⁶⁶ Nat’l Marine Fisheries Serv., *Habitat Areas of Particular Concern within Essential Fish Habitat*, <https://www.fisheries.noaa.gov/southeast/habitat-conservation/habitat-areas-particular-concern-within-essential-fish-habitat>.

⁶⁷ SAFMC Letter, *supra* n. 4, at 2-3; *see also* Wenger, *supra* n. 4, at 978 (noting that “the risk of entraining larval fish and eggs can be minimized by restricting dredging during key reproductive and recruitment time periods”).

turtles and fish, these effects can be more acute during the spring and summer. For example, although manatees spend their winters in Florida's warmer waters, they are often present in Georgia's coastal waters during warmer months. If dredging occurs during these warmer months, it may cause entanglement or collisions with equipment or support craft.⁶⁸ In addition, noise associated with dredging can mask the sounds of other boat traffic, thereby increasing the potential for manatee-boat collisions near the shipping channel.⁶⁹

Hopper dredging also poses risks to horseshoe crabs. In 2007, for example, hopper dredging in the Savannah Harbor Entrance Channel entrained over 5,500 horseshoe crabs, despite being conducted outside of spring or fall migration windows.⁷⁰ According to the U.S. Fish and Wildlife Service and the U.S. Geological Survey, these effects can be heightened during spring and fall migration periods.⁷¹

Hopper dredging can also harm benthic communities by removing surficial sediment and associated fauna.⁷² Although the Draft EA considers the impacts of hopper dredging on benthic communities in passing, it entirely ignores that timing may play a role in determining how quickly the benthic community recovers after dredging. According to the U.S. Fish and Wildlife Service and the U.S. Geological Survey, "sediment removal during peak spawning or settlement times may delay recovery of communities and have adverse effects on higher trophic levels."⁷³ In addition, "the timing of sediment removal in relation to spawning and recruitment of the benthic fauna...can also affect feeding and reproduction of shellfish and finfish that rely on benthic fauna."⁷⁴

⁶⁸ Miselis, *supra* n. 1, at 34; *see also* U.S. Army Corps of Eng'rs, Final Environmental Impact Statement: Brunswick Harbor Deepening Project 23 (Mar. 1998) (on file with U.S. Army Corps of Eng'rs) (noting that hopper dredging may impact West Indian manatees and that "if dredging were conducted during the winter, there would be less likelihood of harming these mammals")

⁶⁹ Miselis, *supra* n. 1, at 36.

⁷⁰ *Id.* at 33-34; Gary L. Ray and Douglas G. Clarke, *Issues Related to Entrainment of Horseshoe Crabs (Limulus Polyphemus) by Hopper Dredges* 82, 85, 30th Western Dredging Association Technical Conference (June 2010) (provided as Attachment 18).

⁷¹ Miselis, *supra* n. 1, at 33-34 (noting that because adult horseshoe crabs congregate along migratory pathways, the "timing of dredging operations and area restrictions can effectively reduce the likelihood of entrainment").

⁷² *Id.* at 26.

⁷³ *Id.* at 28.

⁷⁴ *Id.* at 28.

D. The Corps did not analyze a reasonable range of alternatives

NEPA requires federal agencies to “study, develop, and describe appropriate alternatives” to the agency’s proposed course of action.⁷⁵ The purpose of an agency’s alternatives analysis is to provide a full and complete picture of the environmental impacts of the agency’s proposed action and to determine whether there are “other options [the agency] could take that might be *less damaging* to the natural environment.”⁷⁶ An agency must consider a range of alternatives “sufficient to permit a reasoned choice.”⁷⁷ “Only alternatives that accomplish the purposes of the proposed action are considered reasonable, and only reasonable alternatives require detailed study. So how the agency defines the purpose of the proposed action sets the contours for its of available alternatives.”⁷⁸

Here, the Corps did not define the purpose or need for annual maintenance dredging at all—and certainly not in a way that would allow for a reasonable exploration of available alternatives.⁷⁹ Instead, the Corps largely discounts potential impacts by pointing to the 2020 SARBO. But the Endangered Species Act consultation process does not require an agency to consider alternatives. Instead, after a consultation, it is up to the action agency (in this case, the Corps) to determine whether or how to proceed in light of the consultation.⁸⁰

Here, although the 2020 SARBO allows maintenance dredging between April 16 and November 30, it does not require it.⁸¹ That means the Corps still has to decide when to dredge,

⁷⁵ 42 U.S.C. § 4332(E); *see also id.* § 4332(C)(iii) (requiring a “detailed statement on ... alternatives to the proposed action”).

⁷⁶ *Soda Mountain Wilderness Council v. Norton*, 424 F. Supp. 2d 1241, 1263 (E.D. Cal. 2006) (emphasis added) (citing *Headwaters, Inc. v. Bureau of Land Mgmt.*, 914 F.2d 1174, 1180 (9th Cir. 1990)).

⁷⁷ *Nat. Res. Def. Council v. Morton*, 458 F.2d 827, 836 (D.C. Cir. 1972); *see also W. Watershed Project v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013) (applying reasonableness standard to EA alternatives analysis).

⁷⁸ *Webster v. U.S. Dep’t of Agric.*, 685 F.3d 411, 22 (4th Cir. 2012) (citations omitted).

⁷⁹ Draft EA, *supra* n.13, at 1, 60 (“The purpose of the proposed action is to reduce transportation cost inefficiencies experienced by the largest RO/RO ship type calling on Brunswick Harbor.”).

⁸⁰ *See* 50 C.F.R. § 402.15 (“Following the issuance of a biological opinion, the Federal agency shall determine whether and in what manner to proceed with the action in light of its section 7 obligations and the Service’s biological opinion.”); *see also Sierra Club v. U.S. Army Corps of Engineers*, 803 F.3d 31, 41 (D.C. Cir. 2015).

⁸¹ The 2020 SARBO contains a project design criterion requiring survey vessels that are longer than 33 feet to be scheduled outside the North Atlantic right whale migration and calving season (November 1 through April 30) to the “maximum extent practicable.” However, this restriction applies to survey vessels, not dredging vessels, and continues to grant discretion to the Corps.

what type of dredge to use, what size survey vessels to use, and whether to apply any additional restrictions beyond what NMFS imposed. That's where the NEPA alternatives analysis comes in.

For example, the Corps should have considered maintaining historical dredging windows in combination with one or more of the action alternatives, instead of only considering the use of dredging windows as part of the no action alternative. The Corps could also have considered using expanded dredging windows or different equipment types. Indeed, although the Corps prefers hopper dredging, the Chief of Navigation for the Savannah District acknowledged that cutterhead dredges (which are far less harmful to threatened loggerhead sea turtles and other wildlife) could be used.⁸² At a minimum, the Corps should have considered using less harmful equipment in portions of the harbor, like the Cedar Hammock Range, which the Draft EA specifically acknowledges is suitable for other dredge types.⁸³

The Corps should also have considered imposing more protective measures for right whales during traditional winter dredging windows. The Corps contends that the primary goal for removing dredging windows is to minimize right whale interactions with high-speed survey vessels. Although the Georgia Department of Natural Resources disputes this claim (explaining that hopper dredges have been used in Georgia channels during right whale calving season for thirty years with no whale fatalities),⁸⁴ the state has also recommended that the Corps require more restrictive speed measures for survey vessels in Georgia harbors, thereby eliminating risks to right whales as well as turtle species.⁸⁵ The Corps should have considered these alternatives before removing dredging windows entirely.

The Corps should also have consider bundling the Brunswick Harbor maintenance dredging contract with the Savannah Harbor maintenance dredging contract instead of other regional harbors to achieve greater cost savings. Although Savannah Harbor was originally slated for spring and summer dredging, the Corps recently announced that it would continue to abide by winter dredging windows pursuant to the State of Georgia's Clean Water Act Section 401 Certification and the Savannah Harbor Expansion Project (SHEP) Compromise and Settlement Agreement.⁸⁶

According to the Georgia Department of Natural Resources, "smaller vessels could be used or the surveys could be conducted prior to November 1st and/or after April 30th," while still dredging during winter months. CRD Letter, *supra* n. 3, at 4.

⁸² Transcript, *supra* n. 22, at 90.

⁸³ Draft EA, *supra* n.13, at 72.

⁸⁴ CRD Letter, *supra* n. 3, at 4.

⁸⁵ *Id.*

⁸⁶ U.S. Army Corps of Eng'rs, Memorandum re: Operation and Maintenance (O&M) Hopper Dredging: Brunswick Harbor and Savannah Harbor (July 13, 2021) (on file with U.S. Army Corps of Eng'rs).

E. The Corps did not adequately consider the cumulative impacts of region-wide spring and summer dredging.

Under NEPA, the Corps is obligated to evaluate the cumulative effects of a project before moving forward. This means that the Corps must consider the impacts of the authorized action “when added to other past, present, and reasonably foreseeable future actions.”⁸⁷

Aside from a passing mention of an anticipated new RO/RO berth and the removal of the Golden Ray (neither of which are adequately described or assessed), the Corps summarily concludes that year-round maintenance dredging during the 50-year assessment window will have no adverse cumulative impacts at all. But the Corps’ proposal is inherently rife with adverse cumulative impacts by facilitating more frequent maintenance dredging events during times of the year when ecosystems are most susceptible to additional stressors.

The Corps also inappropriately limits the geographic scope of its cumulative impacts analysis to projects “within and near the Brunswick Harbor study area.”⁸⁸ As explained by the Council on Environmental Quality (CEQ), “[w]hen analyzing the contribution of [the] proposed action to cumulative effects ... the geographic boundaries of the analysis almost always should be expanded.”⁸⁹ So, for example, when conducting a cumulative effects analysis for wildlife resources like fisheries or protected species, CEQ recommends analysis of the entire species habitat or ecosystem⁹⁰—which the Corps acknowledges extends throughout the Southeast region.⁹¹ By limiting its cumulative impacts analysis to projects “within and near” Brunswick Harbor, the Corps ignores important considerations that NEPA requires it to consider.

The Corps also ignores the cumulative impacts of climate change on loggerhead sea turtle recovery. Climate change is expected to significantly hinder recovery, especially in regions that are under threat of sea level rise and prone to coastal development.⁹² Any interruption of breeding or nesting—particularly the loss of nesting females—from year-round dredging could be detrimental to their populations, especially when allowed annually.

⁸⁷ See 40 C.F.R. §§ 1508.7, 1508.8.

⁸⁸ Draft EA, *supra* n. 13, at 124; see also *id.* (discussing cumulative impacts “within the study area”).

⁸⁹ CEQ, *Considering Cumulative Effects under the National Environmental Policy Act* 12 (Jan. 1997), <https://ceq.doe.gov/docs/ceq-publications/ccenepa/sec2.pdf>.

⁹⁰ *Id.*

⁹¹ Draft EA *supra* n. 13, at 110 (“Under the 2020 SARBO species are appropriately managed at the regional level, as all move throughout the South Atlantic.”).

⁹² See Mariana M.P.B. Fuentes et al., *Potential adaptability of marine turtles to climate change may be hindered by coastal development in the USA*, Reg’l Env’tl. Change (July 15, 2020) (provided as Attachment 19).

F. The Corps appears to be already implementing the proposal

Despite NEPA's clear admonitions against predetermined decision-making, the Corps appears to be proceeding on the assumption that dredging windows will be removed before completing the NEPA process or allowing the public the opportunity to comment on the removal of dredging windows. On May 13, 2021, over a month before publishing the revised Draft EA, the Corps published a pre-solicitation notice for 2022 maintenance dredging in Brunswick Harbor. In the notice, the Corps says there are no environmental windows for the project and that year-round dredging is permitted.⁹³

Engaging in this type of predetermined decision-making undermines the entire purpose of NEPA. Rather than using the NEPA process as intended to consider reasonable, less-harmful alternatives that fit the agency's need, the Corps appears to be merely going through the motions to justify decisions already made.

III. THE CORPS MUST PREPARE AN EIS FOR THIS PROPOSAL

The Corps' proposal is a major federal action that will have significant effects on Georgia's threatened and endangered species. Such significant projects necessarily demand a full EIS, rather than the inadequate EA that the Corps has provided here. The entire purpose of NEPA is to "focus[] government and public attention on the environmental effects of proposed agency action" and "ensure[] that important environmental consequences will not be 'overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.'"⁹⁴

To satisfy its obligations under NEPA, the Corps may first prepare an EA to determine whether a proposed project will have any significant environmental impacts.⁹⁵ But if the EA shows that "*any* significant environmental impacts *might* result" from the issuance of a permit, the Corps must then prepare an EIS to fully evaluate the potential environmental impacts.⁹⁶ A "detailed EIS...serves as a springboard for public comment and incorporates the critical views of other federal, state, and local agencies."⁹⁷

In the Eleventh Circuit, the decision not to proceed to an EIS is only justified if (1) the agency satisfied its obligation to "identify the relevant environmental concern," (2) took a "hard

⁹³ U.S. Army Corps of Eng'rs, *South Atlantic Regional Harbor Dredging Presolicitation Notice* (May 13, 2021), <https://sam.gov/opp/dc4f3a8750d64743ac267b07533185c2/view>.

⁹⁴ *N. Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533, 1540 (11th Cir. 1990).

⁹⁵ 40 C.F.R. § 1501.5.

⁹⁶ *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983) (first emphasis in original); 42 U.S.C. § 4332(2)(C).

⁹⁷ *N. Buckhead Civic Ass'n*, 903 F.2d at 1540.

look” at the concern during its EA process, and (3) either made “a convincing case” to support its findings of no significant impact, or demonstrated that “changes or safeguards in the project sufficiently reduce the impact to a minimum.”⁹⁸ Under this test, an agency’s EA “will pass muster only if it undertook a ‘well-considered’ and ‘fully informed’ analysis of the relevant issues and opposing viewpoints.”⁹⁹ Here, the Corps has failed to satisfy these requirements. It has not made a convincing case that its proposal will not have a significant impact on loggerhead sea turtles, fisheries, and other wildlife, and it has not shown that the mitigation measures it briefly mentions will actually be used or actually be effective.

The crucial trigger for an EIS is “significance,” which the Council for Environmental Quality (CEQ) has traditionally defined in terms of the action’s context and the intensity of its impact.¹⁰⁰ Intensity is evaluated in light of ten factors, only one of which needs to be met for an action to be deemed significant.¹⁰¹ At least seven of those factors apply here:

- (1) Impacts that may be both beneficial and adverse.
- ...
- (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
- (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
- ...
- (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
- (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
- ...

⁹⁸ *Hill v. Boy*, 144 F.3d 1446, 1450-51 (11th Cir. 1998) (quoting *Coal. on Sensible Transp. v. Dole*, 826 F.2d 60, 66-67 (D.C. Cir. 1987)).

⁹⁹ *Am. Rivers v. Fed. Energy Regulatory Comm’n*, 895 F.3d 32, 49 (D.C. Cir. 2018)

¹⁰⁰ 40 C.F.R. § 1508.27 (1978).

¹⁰¹ *See Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1220 (9th Cir. 2008).

- (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
- (10) Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.¹⁰²

In 2020, CEQ altered this framework,¹⁰³ a controversial move that is currently being reevaluated.¹⁰⁴ As briefly discussed at the end of this comment, this project is significant and deserving of an EIS regardless of which CEQ regulations are applied. However, the original framework clearly applies here. The new regulations expressly provide discretion for the continuing application of the prior regulations to “ongoing activities and environmental documents begun before September 14, 2020.”¹⁰⁵ The Brunswick Harbor Modifications Study NEPA process was initiated in May 2019 and itself states that “the prior CEQ regulations continue to apply to this report.”¹⁰⁶ Under that framework, the Corps’ Draft EA conclusions fall far short of a “hard look” or “convincing case.” Rather, the following seven factors clearly indicate that a full, detailed EIS is necessary.

A. The traditional NEPA factors for determining “significance” demand that a full EIS be prepared

1. The Corps’ proposal will have adverse impacts

As described in Section II, spring and summer maintenance dredging will almost certainly have significant adverse impacts to loggerhead sea turtles, fisheries, and other wildlife. These impacts are not “slight” or minor as the Corps suggests.¹⁰⁷ Indeed, upon reviewing scientific literature and testimony from a senior wildlife biologist at the Georgia Department of Natural Resources, a federal court recently found that “there is a strong likelihood that a substantial and appreciable number of [loggerhead] sea turtles would be killed by hopper dredging [during the summer].”¹⁰⁸ To paraphrase the court, “perhaps the best evidence” that spring and summer hopper dredging will have significant impacts “is the Corps’ own 30-some-

¹⁰² 40 C.F.R. § 1508.27(b) (1978).

¹⁰³ See 40 C.F.R. § 1501.3 (2020).

¹⁰⁴ See Ellen M. Gilmer, *Biden Officials Rethinking Trump Environmental Review Rule*, BLOOMBERG LAW, <https://news.bloomberglaw.com/environment-and-energy/biden-officials-rethinking-trump-environmental-review-rule> (March 17, 2021).

¹⁰⁵ 40 C.F.R. § 1506.13 (2020).

¹⁰⁶ Draft EA, *supra* n. 13, at 1.

¹⁰⁷ *Id.* at 109.

¹⁰⁸ Transcript, *supra* n. 22, at 142.

odd year practice of not dredging outside of the winter months and the underlying studies which prompted this restriction by the Corps.”¹⁰⁹

2. The project area contains ecologically critical areas

The natural environment surrounding Brunswick Harbor boasts spectacular barrier islands, tidal creeks, and marsh ecosystems rife with wildlife and natural resources. As explained above, the area surrounding the lower Brunswick River contains essential fish habitat (EFH) for brown shrimp, white shrimp, pink shrimp, gag grouper, gray snapper, black sea bass, Spanish mackerel, summer flounder, and several shark species in or around the project area.¹¹⁰ Some of this habitat has also been designated as “habitat areas of particular concern” (HAPC), which are “subsets of [essential fish habitat] that ... [are] rare, stressed by development, provide important ecological functions for federally managed species, or are especially vulnerable to anthropogenic (or human impact) degradation.”¹¹¹ The area also provides important habitat for loggerhead sea turtles and a number of other threatened and endangered species, as described in Section II above.

3. The Corps’ proposal is highly controversial

For purposes of NEPA, controversy exists when there is “a substantial dispute...as to the environmental consequences of the proposed action.”¹¹² This dispute must be “about the size, nature or effect of a federal action,” rather than just “the existence of opposition.”¹¹³ Showing that there are “underlying flaws” in the agency’s methodology or data can demonstrate the existence of controversy.¹¹⁴ This is especially true if those raising the concerns “are themselves government agencies with ‘special expertise’...[C]ourts regularly find that such concerns demonstrate that a project qualifies as highly controversial.”¹¹⁵ Once confronted with controversy, agencies have a responsibility to not just acknowledge it but to actually resolve it.¹¹⁶

¹⁰⁹ *Id.* at 143.

¹¹⁰ Draft EA, *supra* n. 13, at 30-31.

¹¹¹ Nat’l Marine Fisheries Serv., *Habitat Areas of Particular Concern within Essential Fish Habitat*, <https://www.fisheries.noaa.gov/southeast/habitat-conservation/habitat-areas-particular-concern-within-essential-fish-habitat>.

¹¹² 43 C.F.R. § 46.30 (2008).

¹¹³ *Natural Resources Def. Council v. Nat’l Park Serv.*, 250 F.Supp.3d 1260, 1297 (M.D. Fla. 2017) (quoting *Ga. River Network v. U.S. Army Corps of Eng’rs*, 334 F.Supp.2d 1329, 1338 (N.D. Ga. 2003)).

¹¹⁴ *See id.* at 1297-98.

¹¹⁵ *Nat’l Parks Conservation Ass’n v. Semonite*, 916 F.3d 1075, 1084 (D.C. Cir. 2019).

¹¹⁶ *Id.* at 1085-86 (“The question is not whether the Corps attempted to resolve the controversy, but whether it succeeded.”).

Here, the Corps' proposal has drawn substantive, sustained criticism from other agencies with special expertise and investment in the harbor's health. The Georgia Department of Natural Resources has sent at least two letters to the Corps objecting to its proposal – one from the Wildlife Resources Division (WRD) and one from the Coastal Resources Division (CRD).¹¹⁷ In its letter objecting to year-round dredging, CRD specifically emphasized that the new biological opinion has “consequential and controversial differences that may have population level impacts, and an Environmental Assessment is not sufficient to adequately evaluate these impacts.”¹¹⁸

These letters do not merely reflect public opposition to the Corps' proposal.¹¹⁹ Rather, they identify fundamental flaws with the scientific methods and data behind the Corps' proposal. Coming from a state agency whose opinion the Corps is legally required to solicit,¹²⁰ this is the very definition of “highly controversial.” As the D.C. Circuit has recently pointed out, “repeated criticism from many agencies who serve as stewards of the exact resources at issue...surely rises to more than mere passion.”¹²¹ The following is a sampling of the existing controversy:

- In its September 28, 2020 letter to the Corps, WRD wrote that it “fundamentally disagree[s]” with the 2020 South Atlantic Regional Biological Opinion (SARBO) that the Corps now seeks to incorporate into the Draft EA.¹²² It referenced the findings of a 2009 demonstration project by the Corps that “showed that summer dredging was not feasible due to high sea turtle capture rates, including mortality of reproductively active loggerhead turtles.”¹²³ By contrast, WRD found that “[t]he 2020 SARBO does not provide adequate biological or logical justification for not complying with winter dredging windows.”¹²⁴ It emphasized that “we do not concur” with the agency's claims about the SARBO's effect on threatened and endangered species.¹²⁵

¹¹⁷ A similar proposal by the Corps in North Carolina has also drawn objection from the South Atlantic Fishery Management Council. *See generally* SAFMC Letter, *supra* n. 4.

¹¹⁸ *See* CRD Letter, *supra* n. 3, at 12.

¹¹⁹ In addition to the legal controversy factors, it should be noted that there is significant public opposition to this proposal. The Coastal Resource Division's letter notes that it received over 1,500 public comments opposing hopper dredging outside the traditional dredging windows, mostly based on the potential threat to sea turtles and inconsistency with Georgia's state environmental laws. *See id.* at 2. We anticipate that the Corps will receive substantial public opposition during this comment period as well.

¹²⁰ *See* 16 U.S.C. § 1456.

¹²¹ *Semonite*, 916 F.3d at 1085.

¹²² WRD Letter, *supra* n. 3, at 1.

¹²³ *Id.* at 2.

¹²⁴ *Id.*

¹²⁵ *Id.*

- A February 22, 2021 memorandum summarizing the department’s concerns further underscored the scientific flaws in the Corps’ proposal. As the memorandum noted, the 1991 SARBO found that dredging practices before the establishment of dredging windows “jeopardized the continuing existence” of threatened and endangered sea turtle species.¹²⁶ The memorandum disputed the contention that removing dredging windows would help other protected species like the right whale and the Atlantic sturgeon.¹²⁷ It emphasized that “available data does not support either of [the] arguments” involving right whales, calling the conclusion “illogical.”¹²⁸ It also found that even a “legal allowable take for adult loggerheads could lead to significant local declines in loggerhead populations in Georgia.”¹²⁹
- Similar concerns were communicated to the Corps in an April 23, 2021 letter from CRD. In addition to challenging the Corps’ statements on protecting right whales,¹³⁰ CRD directly identified scientific shortcomings in the Corps’ analysis – namely, its treatment of turtle population distribution and their age-class abundance by season.¹³¹ It again called the Corps’ attention to its own 2009 demonstration project.¹³² Ultimately, it found that the Corps’ EA, FONSI, and Federal Consistency Determination “do not adequately address the increased risk to Georgia’s sea turtle population, do not provide justification for changing from the winter hopper dredge window...and have not shown that changing to a summer hopper dredging window will have similar or less reasonably foreseeable impacts to those resources.”¹³³ Based on these findings, it concurred only on the condition that, among other things, the dredging window would remain in place “unless prior approval, based on extraordinary justification, is obtained from GCMP.”¹³⁴ Despite this condition, the Corps has indicated its intent to move forward anyway.

These comments from the state clearly demonstrate that the Corps’ proposal is “highly controversial” within the meaning of NEPA. In response to these concerns, “the Corps had to

¹²⁶ DNR Mem., *supra* n. 1, at 2.

¹²⁷ *Id.* at 10.

¹²⁸ *Id.*

¹²⁹ *Id.* at 11.

¹³⁰ CRD Letter, *supra* n. 3, at 4.

¹³¹ *Id.* at 6-7.

¹³² *Id.* at 7.

¹³³ *Id.* at 9.

¹³⁴ *Id.* at 11. Absent those conditions, the agency dictated that “all parties shall treat this conditional concurrence letter as an objection.” In its EA, the Corps “found the conditions unacceptable” and thus now treats this letter as an objection. *See* Draft EA, *supra* n. 13, at 139.

either confront those fact or explain why [subsequent events] rendered them irrelevant.”¹³⁵ Instead, the Corps makes only passing reference to these criticisms. Indeed, it does not address the 2009 demonstration project or the recent turtle mortalities in Charleston Harbor at all, and it barely mentions the direct and sustained objections from the Georgia Department of Natural Resources. Though the Corps purports to provide its own competing “conclusions,” the Corps has essentially “just shrugged off” the state’s repeated objections.¹³⁶ This falls far short of resolving the controversy and demonstrates the necessity of an EIS. Indeed, the purpose of an EIS is “to provide robust information in situations precisely like this one, where, following an environmental assessment, the scope of a project’s impacts remains both uncertain and controversial.”¹³⁷

4. The Corps’ proposal will have negative precedential impacts

While an action’s precedential effect is generally “insufficient on its own” to establish significance, it can nevertheless weigh in favor of the need to perform an EIS¹³⁸—for example, when the proposal might exert pressure on future actors¹³⁹ or, “by design, shape [an agency’s] methods and strategies moving forward.”¹⁴⁰

Here, the Corps’ proposal has great potential to precipitate the lifting of dredging windows in other states. This is not mere speculation. When the Corps first moved to dredge outside of its traditional windows, it simultaneously sought to dredge in two harbors—the Savannah and Brunswick Harbors. Around the same time, it made a similar proposal for two harbors in North Carolina, which conservation groups opposed for similar reasons. As SELC pointed out in those proceedings, at least ten states along the Atlantic Coast have seasonal dredging restrictions.¹⁴¹ The Corps has gone on the record calling these proposals part of a “paradigm shift” in their approach to dredging.¹⁴²

¹³⁵ *Nat’l Parks Conservation Ass’n v. Semonite*, 916 F.3d 1075, 1085 (D.C. Cir. 2019).

¹³⁶ *Cf. Am. Rivers v. Fed. Energy Regulatory Comm’n*, 895 F.3d 32, 50 (D.C. Cir. 2018).

¹³⁷ *Semonite*, 916 F.3d at 1087-88.

¹³⁸ *Anderson v. Evans*, 371 F.3d 475, 493 (9th Cir. 2004).

¹³⁹ *Cf. Sierra Club v. Marsh*, 769 F.2d 868, 879 (1st Cir. 1985) (citing concern that development pressures “could well prove irreversible”).

¹⁴⁰ *Or. Wild v. Bureau of Land Mgmt.*, 2015 WL 1190131 *1, *9 (D. Or. 2015).

¹⁴¹ In addition to Georgia, those states are Florida, Maryland, Maine, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, South Carolina, and Virginia.

¹⁴² Mary Landers, *Summertime dredging in Georgia threatens sea turtles; Corps allowed to kill 214 loggerheads*, Savannah Morning News (Mar. 26, 2021), <https://www.savannahnow.com/story/news/2021/03/26/dredging-georgia-threatens-sea-turtles-summer-right-whales-winter/4704913001/>.

The fact that the Corps has, in one year, moved to lift dredging windows in at least two states (and four harbors) reflects the very real possibility that year-round dredging will soon be seen as the norm for the entire southeast coast. Indeed, in 2021, the Corps attempted to bundle maintenance dredging contracts for certain North Carolina and Georgia harbors together (with no environmental windows). The agency has indicated that it intends to add Charleston Harbor, South Carolina, to the regional harbor dredging contract in 2022, suggesting that it will no longer abide by historic dredging windows in South Carolina either.¹⁴³ Despite the obviously significant environmental effects that this would have, the Corps' Draft EA demonstrates no awareness of how these collective impacts might play out, creating a "troubling vacuum" in their environmental review.¹⁴⁴

The Corps also ignores the potential precedential effects of this proposal on beach fill projects. Spring and summer dredging could effectively create greater "demand" for beach fill projects outside of current nourishment windows as a means of disposing of the dredged material, causing indirect impacts to shorebirds, sea turtles, and other wildlife through ill-timed nourishment projects.

5. The Corps' proposal will have cumulatively significant impacts

Just as the Corps cannot ignore the precedential effects of this decision, the Corps cannot evaluate this decision's environmental impacts in a vacuum. Under NEPA regulations, an agency cannot avoid review by labeling a project as temporary or by breaking it down into seemingly insignificant components.¹⁴⁵ Instead, the agency must give "a realistic evaluation of the total impacts,"¹⁴⁶ taking into account all "reasonably foreseeable"¹⁴⁷ actions that are "sufficiently concrete"¹⁴⁸ to "further the informational purposes of NEPA."¹⁴⁹ After all, any given action could be "the straw that breaks the back of the environmental camel."¹⁵⁰

¹⁴³ U.S. Army Corps of Eng'rs, *South Atlantic Regional Harbor Dredging Presolicitation Notice* (May 13, 2021), <https://sam.gov/opp/dc4f3a8750d64743ac267b07533185c2/view>.

¹⁴⁴ *Cf. Anderson*, 371 F.3d at 493 (describing government's failure to consider whether approving tribal whale hunts would increase whaling by "other domestic groups").

¹⁴⁵ 40 C.F.R. § 1508.27(b)(7).

¹⁴⁶ *Ga. River Network v. U.S. Army Corps of Eng'rs*, 334 F.Supp.2d 1329, 1339 (N.D. Ga. 2003) (quoting *Grand Canyon Trust v. Fed. Aviation Admin.*, 290 F.3d 339, 342 (D.C. Cir. 2002)).

¹⁴⁷ *City of Oxford, Ga. v. Fed. Aviation Admin.*, 428 F.3d 1346, 1353 (11th Cir. 2005).

¹⁴⁸ *Id.*

¹⁴⁹ *Id.* at 1353-54.

¹⁵⁰ *Ga. River Network*, 334 F.Supp.2d at 1338-39 (quoting *Hanly v. Kleindienst*, 471 F.2d 823, 831 (2d Cir. 1972)).

As discussed further in Section II.E, the Draft EA does not adequately consider how the lifting of summer dredging windows might act in concert with other harbor management decisions in Brunswick and throughout the region. As discussed elsewhere in these comments, the Corps has proposed other projects for this harbor and is in the process of making similar proposals in other Southeastern harbors. These projects are reasonably foreseeable and sufficiently concrete – and they matter because, as the Draft EA itself notes, “species are appropriately managed at the regional level, as all move throughout the South Atlantic.”¹⁵¹ Indeed, the Draft EA concludes that turtles will not be significantly impacted by the SARBO *because* of “the increased number of loggerhead sea turtles [throughout the region] and their ability to nest along the southeast coast.”¹⁵² Despite this acknowledgment, neither of the dredging proposals in Georgia and North Carolina have factored in the *cumulative* effects of this region-wide spring and summer dredging on turtle populations. Those potentially significant effects are exactly the kind of information that an EIS is designed to uncover.

6. The Corps’ proposal will significantly affect threatened and endangered species

As previously discussed, this proposal poses a serious threat to the long-term viability of loggerhead sea turtle populations by making it more likely that reproductive-age adult turtles will be killed or severely injured. This effect would be significant and can only be properly evaluated by a full EIS.

The Corps attempts to dismiss these effects by pointing to the 2020 SARBO. But the purpose of a biological opinion like the 2020 SARBO is to evaluate whether a proposed project would jeopardize the continued existence of a species—not to opine on whether a project would have a significant impact. “Clearly, there can be a significant impact on a species even if its existence is not jeopardized.”¹⁵³

¹⁵¹ Draft EA, *supra* n. 13, at 110.

¹⁵² *Id.* at 112.

¹⁵³ *Makua v. Rumsfeld*, 163 F. Supp. 2d 1202, 1218 (D. Haw. 2001); *see also Sierra Club v. Norton*, 207 F. Supp. 2d 1310, 1322 (S.D. Ala. 2002) (“An environmentally significant action need not involve a threat of extinction to a federally-protected species. Lesser impacts, including impacts on non-listed species, can constitute a significant effect.”); *see also Cascadia Wildlands v. U.S. Forest Serv.*, 937 F. Supp. 2d 1271, 1283 (D. Or. 2013) (holding project may have significant effect on environment where project will “likely adversely affect” northern spotted owl); *Klamath-Siskiyou Wildlands Ctr. v. U.S. Forest Serv.*, 373 F. Supp. 2d 1069, 1080-81 (E.D. Cal. 2004) (same); *Sierra Club v. Van Antwerp*, 719 F. Supp. 2d 58, 65-67 (D.D.C. 2010) (Lamberth, J.) (holding that “an EIS should have been prepared because ... [d]estroying the habitats of the Indigo Snake and the Wood Stork clearly may adversely affect these protected

In any event, like the state of Georgia, we also have serious concerns with the methods and data by which the 2020 SARBO concluded otherwise. These fundamental disagreements suggest that the significance of the impact on turtles is at least a matter of serious scientific controversy. This is especially true when the full scale of potential spring and summer dredging is considered. For these reasons as well, an EIS is necessary.

7. The Corps' proposal ignores the State's Coastal Zone Management objection

As discussed in detail in Section IV, the Corps has not complied with Georgia's Coastal Management Plan (CMP) to the maximum extent practicable, as required by the Coastal Zone Management Act (CZMA). Instead, the Corps intends to proceed over the state's objection. This potential violation of the CZMA warrants further review in an EIS.

B. The new NEPA regulations also demand that a full EIS be prepared

As previously discussed, the Corps has already determined that the prior NEPA regulations—which use the preceding factors—apply to this project. However, even the new regulations, if applied here, would require a full EIS for this proposal. Under those regulations, agencies still must determine significance in light of “the affected area (national, regional, or local) and its resources, such as listed species and designated critical habitat under the Endangered Species Act.”¹⁵⁴ When evaluating the degree of an action's effects, agencies should consider:

- (i) Both short- and long-term effects.
- (ii) Both beneficial and adverse effects.
- (iii) Effects on public health and safety.
- (iv) Effects that would violate Federal, State, Tribal, or local law protecting the environment.¹⁵⁵

The preceding sections clearly demonstrate that the Draft EA has not adequately considered how a change to traditional dredging windows would adversely affect endangered species like the loggerhead sea turtle—especially when played out over the long-term and along

species” even though “this fact is not fatal to the ultimate substantive determinations” under the ESA concerning jeopardy), *rev'd on other grounds*, 661 F.3d 1147 (D.C. Cir. 2011).

¹⁵⁴ 40 U.S.C. § 1501.3(b)(1).

¹⁵⁵ *Id.*

the entire coast. Furthermore, as the state's sustained objection demonstrates, the Corps' proposal threatens to violate long-standing Georgia laws and policies designed to protect those same species. In light of these significant effects, a full EIS is necessary.

IV. THE CORPS HAS NOT COMPLIED WITH OTHER FEDERAL AND STATE LAWS

A. The Corps improperly disregards the State of Georgia's Coastal Zone Management Act consistency objection

The federal Coastal Zone Management Act of 1972 (CZMA) was passed by Congress to “promote comprehensive and coordinated planning for coastal zone development and preservation between states and the federal government.”¹⁵⁶ Under the CZMA, each coastal state may adopt a Coastal Management Program (CMP) that provides for “the protection of natural resources, including ... fish and wildlife and their habitat, within the coastal zone.”¹⁵⁷ Once a state develops a CMP, the CZMA requires any federal activity within the coastal zone to be consistent “to the maximum extent practicable” with the state CMP.¹⁵⁸

The phrase “consistent to the maximum extent practicable” means “fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency.”¹⁵⁹ In other words, “whenever legally permissible, Federal agencies shall consider the enforceable policies of management programs as requirements to be adhered to in addition to existing Federal agency statutory mandates.”¹⁶⁰

Here, the State of Georgia objected to the Corps' proposal to conduct year-round hopper dredging, explaining that the proposal would result in the taking of the state-listed loggerhead sea turtles and other wildlife in violation of the Georgia Game and Fish Code and other wildlife protection laws.

Rather than accept the CZMA's mandate to comply with Georgia's CMP, the Corps sent the state a letter informing it that the Corps intended to move forward with year-round dredging

¹⁵⁶ *Conservation Law Found. v. Watt*, 560 F. Supp. 561, 574 (D. Mass. 1983) *aff'd sub nom. Com. of Mass. v. Watt*, 716 F.2d 946 (1st Cir. 1983).

¹⁵⁷ 16 U.S.C. § 1452(2)(a).

¹⁵⁸ 16 U.S.C. § 1456(c)(1)(A); *see also* 15 C.F.R. § 930.30 (“The provisions of this subpart are intended to assure that all Federal agency activities including development projects affecting any coastal use or resource will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of approved management programs.”).

¹⁵⁹ 15 C.F.R. § 930.32.

¹⁶⁰ *Id.*

anyway. In the letter, the Corps offered no explanation for why it was no longer practicable to abide by seasonal dredging windows—a practice the Corps followed for three decades.

B. The Corps made substantial changes to the proposed action after consulting with agencies under the Magnuson-Stevens Act.

The Magnuson-Stevens Act requires federal agencies to consult with NMFS regarding potential impacts to essential fish habitat. Here, the Corps consulted with the NMFS in early 2020.¹⁶¹ At that time, however, the original draft EA reviewed by NMFS said the Corps would use a cutterhead, not hopper, dredge and made no reference to the removal of seasonal hopper dredging windows.¹⁶² Indeed, in Appendix H to the original draft EA, the Corps described its “minimization measures” as follows:

In order to minimize impacts to T&E species, critical habitats, and marine mammals...the BHMS [Brunswick Harbor Modification Study] proposed to use the cutterhead dredge method.... Cutterhead dredges are known to have less direct impacts to listed species than other dredge types. Other dredge methods were analyzed and would be too costly to endangered species such as sea turtles and sturgeon....”¹⁶³

It was not until February 2021, well after the FWCA consultation, that the Corps revealed in a revised appendix that it planned to allow the use of hopper dredges for annual maintenance dredging.¹⁶⁴ It does not appear that the Corps has consulted with NMFS again since that time. Given the significant risks to fisheries, EFH, and HAPCs from the shift to spring and summer dredging, the failure to consult with NMFS about fisheries impacts is particularly problematic.

V. CONCLUSION

Given the substantial threats described above, we urge the Corps to continue the use of longstanding and effective seasonal dredging windows to balance the need for efficient dredging of Brunswick Harbor with the protection of loggerhead sea turtles, fisheries, and other sensitive

¹⁶¹ Letter from Kimberly Garvey, U.S. Army Corps of Eng’rs, to Pace Wilbur, Nat’l Marine Fisheries Serv. (June 9, 2020) (attached to Draft EA as Ex. G); E-mail from Stephen M. Fox, U.S. Army Corps of Eng’rs, to Pace Wilbur, Nat’l Marine Fisheries Serv. (June 9, 2020) (attached to Draft EA as Ex. G).

¹⁶² See Draft EA, *supra* n. 13.

¹⁶³ *Id.* at App. H p. 5; see also *id.* at App. K, p. 17 (“Using a cutterhead dredge as the USACE plans should minimize dredging impacts to turtles in the water.”); *id.* at 18 (“We recommend the USACE condition the project as they have described for the safety of wildlife and the environment. These conditions include using only cutterhead dredges....”).

¹⁶⁴ See Draft EA, *supra* n. 13, at App. J.

Ms. Kimberly Garvey

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species. At a minimum, the Corps should fully evaluate the impacts of unrestricted hopper dredging in an EIS. We believe that once the Corps does so, the benefits of continuing the use of seasonal windows will become even more clear.

Thank you for considering our concerns. If you have any questions, please feel free to contact me at 404-521-9900 or mhuynh@selcga.org.

Sincerely,



Megan Hinkle Huynh
Senior Attorney



Robert D. Sherrier
Associate Attorney

Attachments

cc: Megan Desrosiers, One Hundred Miles
Catherine Ridley, One Hundred Miles