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Via E-Mail
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Wilmington District
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RE: Southern Environmental Law Center Scoping Comments on Wilmington Harbor, NC Project

Dear Mr. Hibner and Ms. Stolba:

The Southern Environmental Law Center ("SELC") submits these comments on behalf of Audubon North Carolina, Cape Fear River Watch, Center for Biological Diversity, CleanAIRE NC, North Carolina Coastal Federation, North Carolina Conservation Network, North Carolina NAACP, and North Carolina Sierra Club, regarding the U.S. Army Corps of Engineers' ("Corps") Notice of Intent to Prepare an Environmental Impact Statement ("EIS") for a Letter Report for the Wilmington Harbor, North Carolina Project.[1] This letter is the latest in a long line of comments we have submitted on this project, and we attach and incorporate those letters by reference here.[2]

The Lower Cape Fear River is an ecologically significant and biodiverse river system. It features estuarine, brackish, and freshwater ecosystems, supporting the fragile interface between freshwater and saltwater communities. When healthy, the lower portions of the River support thriving fish populations and provide important habitat to threatened and endangered wildlife including Atlantic sturgeon, red knots, and multiple species of sea turtles. Not far upstream, the River provides drinking water to more than 500,000 people throughout Wilmington and surrounding counties. Near the Port itself lie spectacular barrier islands, tidal creeks, and marsh ecosystems, some of which provide habitat to recreational and commercially important fisheries.

[1] Intent To Prepare an Environmental Impact Statement (EIS) for a Letter Report for the Wilmington Harbor, North Carolina Project, New Hanover and Brunswick Counties, North Carolina, 89 Fed. Reg. 48602 (June 7, 2024).
[2] Letter from Sierra B. Weaver, et al., S. Env't L. Ctr., to Elden Gatwood, U.S. Army Corps of Eng'rs (Oct. 11, 2019), Attachment 1 [hereinafter "SELC, 2019 Scoping Comments"]; Letter from Ramona H. McGee, et al., S. Env't L. Ctr., to Bret Walters & Suzanne Hill, U.S. Army Corps of Eng'rs (June 30, 2023), Attachment 2 [hereinafter "SELC, 2023 Early Scoping Comments"].

Without question, the Cape Fear River is a critical resource to communities and wildlife across Southeastern North Carolina.

Against this environmentally remarkable backdrop, the North Carolina State Ports Authority has proposed to deepen and widen Wilmington Harbor—a project that would, undoubtedly, impact the very aspects of the Cape Fear River that make it so special. As we've raised to the agency before, the expansion would threaten wildlife, water and air quality, and the communities surrounding the Harbor. Many of the resources likely to be impacted are already facing threats from a shifting climate, increased development, and decades of unchecked pollution—threats that will be made all the more severe by the Ports Authority's proposal.

For nearly five years, the Ports Authority and the Corps have nudged the expansion forward without demonstrating an actual need for this environmentally devastating project. Instead, project proponents seem set on deepening the Harbor because that is what they, and other ports across the Southeast have always done. We caution that digging for the sake of digging does nothing but harm the communities and wildlife that rely on a healthy and abundant Cape Fear River. During this scoping period, we once again encourage the Corps to pause and transparently evaluate the actual need for, impacts of, and alternatives to the proposed expansion. The stakes are too high for the agency to plow forward simply because that is what has always been done.

I. The Scoping History of the Project.

As detailed in our previous comment letters, the Corps first formally initiated scoping under the National Environmental Policy Act ("NEPA") in 2019,[3] then later withdrew that scoping notice in March 2023.[4] Now, as the Corps embarks again on NEPA scoping and review for this project, we urge the Corps to clarify that it intends to use the most current, legally compliant NEPA regulations that went into effect July 1, 2024, in preparing the EIS for this project. The Council on Environmental Quality finalized revised NEPA implementing regulations[5] shortly before the Corps' Notice of Intent to prepare an EIS was issued. The Council on Environmental Quality set July 1, 2024 as the effective date for the new rules, requiring that agencies apply the revised regulations to "any NEPA process begun after July 1, 2024" and also allowing agencies to choose to use the revised regulations for "ongoing activities and environmental documents begun before July 1, 2024."[6] The Corps should confirm its intent to

[3] Notice of Intent To Prepare a Draft Environmental Impact Statement (DEIS) for the Wilmington Harbor Navigation Improvement Project Integrated Feasibility Study and Environmental Report, New Hanover and Brunswick Counties, NC, 84 Fed. Reg. 48131 (Sept. 12, 2019).
[4] Withdrawal of Notice of Intent (NOI) To Prepare a Draft Environmental Impact Statement (DEIS) Pursuant to Section 203 of Water Resources Development Act of 1986 for the Wilmington Harbor Navigation Improvement Project Integrated Feasibility Study and Environmental Report, New Hanover and Brunswick Counties, NC, 88 Fed. Reg. 14993 (Mar. 10, 2023).
[5] National Environmental Policy Act Implementing Regulations Revisions Phase 2, 89 Fed. Reg. 35442 (May 1, 2024).
[6] 40 C.F.R. § 1506.12.

use these revised regulations. The revisions correct legal infirmities from the 2020 NEPA rule, restore longstanding and familiar regulatory provisions that provide clarity for agencies and the public alike, and ensure a robust public process as required under the statute.[7]

II. The Corps must revisit the purported purpose for the project.

The Wilmington Harbor purpose and need statement fails to present a compelling reason for federal investment. The Corps states the purpose for the project is "to contribute to national economic development ("NED") by addressing transportation inefficiencies for the forecasted vessel fleet, consistent with protecting the Nation's environment" and the need is "the constraints that contribute to inefficiencies in the existing navigation system's ability to safely serve forecasted vessel fleet and cargo types and volumes."[8] This misstates the current federal objective for investments in water resources. While the 1983 Principles and Guidelines' ("P&G") objective was to "contribute to national economic development consistent with protecting the Nation's environment,"[9] the 2015 Principles, Requirements, and Guidelines revised these "to improve Federal decisions on investments in water resources by giving more prominence to ecological, public safety, environmental justice, and related concerns."[10] In other words, for a future project the Corps' "process should look beyond simply starting with the National Economic Development."[11] Yet that is exactly what this scoping notice does—looks simply at the NED as its purpose, using language from the 1983 P&Gs. The Corps cannot justify a project with a purpose of NED benefits alone. Here the scoping notice fails to present other benefits that might validate a federal investment in Wilmington Harbor.

Further, the NED benefits are unsupportable because there is no evidence that transportation inefficiencies are currently happening or will happen at Wilmington Harbor. Our prior comments demonstrated how Wilmington Harbor is already able to welcome the exact ships this project is designed to accommodate.[12] Additionally, we note that Wilmington Harbor is consistently ranked as one of most productive and efficient ports in North America,[13] boasting

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[7] Declaration of Matthew Lee-Ashley, CEQ Chief of Staff, *Wild Va. v. Council on Env't Quality*, No. 3:20-cv-00045-JPJ-PMS (W.D. Va. March 17, 2021) (stating that CEQ "has substantial concerns about the effects of the 2020 Rule on public health, the nation's land, water, and air quality, communities that have been historically marginalized and overburdened by pollution, the ability of citizens to have their voices heard in federal decision-making processes, and other issues, including the process by which the 2020 Rule was promulgated and the lawfulness of aspects of the 2020 Rule"); 89 Fed. Reg. 35442, 35446–48 (detailing legal challenges to 2020 rule and need for CEQ's latest revisions).

[8] 89 Fed. Reg. 48602, 48602.

[9] *Proposed Rule: Corps of Engineers Agency Specific Procedures to Implement the Principles, Requirements, and Guidelines for Federal Investments in Water Resources*, 89 Fed. Reg. 12066, 12070 (Feb. 15, 2024) (citing 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, https://planning.erdc.dren.mil/toolbox/library/Guidance/Principles_Guidelines.pdf).

[10] 89 Fed. Reg. at 12067 (citing 79 Fed. Reg. 77460 (June 15, 2015)).

[11] 89 Fed. Reg. at 12073.

[12] SELC, 2023 Early Scoping Comments, *supra* note 2, at 4.

[13] WORLD BANK GROUP, THE CONTAINER PORT PERFORMANCE INDEX 2022, at 37 tbl.3.2 (2023), Attachment 3; WORLD BANK GROUP, THE CONTAINER PORT PERFORMANCE INDEX 2023, at 41 tbl.4.2 (2024), Attachment 4.

the highest container truck gate and crane productivity on the U.S. East Coast.[14] Indeed, the Ports Authority recently proclaimed that Wilmington Habor's "best-in class productivity" and "top tier landside and waterside efficiencies" allow the Port to remain congestion-free and meet its global customers' growing demands.[15] These accolades directly conflict with the claims of transportation inefficiencies alluded to in the offered purpose and need for the project.

In addition to the Port's performance, external factors similarly weigh against the purported need for this project. Over the past three years, climate induced drought conditions along major shipping pathways have caused "traffic jams" where larger vessels are unable to pass through shallower water.[16] Last year, one such "jam" occurred in the Panama Canal where more than 200 ships were prevented from passing through.[17] In order to adjust to shallower conditions, the Panama Canal Authority has now issued a higher premium on the heaviest ships,[18] and various shipping companies have introduced Panama Canal surcharges.[19] As a result of the drought conditions, the number of large vessels traversing through the canal has dropped by 39 percent.[20] Closer to home, abnormally dry conditions are also present in the Lower Cape Fear River (and other areas across Southeastern North Carolina).[21] Unfortunately, these long drought periods are likely to increase as a result of a changing climate.[22] As part of its review, the Corps must assess whether shallower waters and emerging shipping fees will force the use of smaller or light-loaded vessels, thereby negating the purported need for this project.

As the Corps admits, shipping lines will not abandon the Port without this project.[23] The Ports Authority's desire to attract new business and increase its competitive advantage among the Southeastern ports must not be conflated with need.[24] The Corps must take a step back to

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[14] *Fast Facts*, N.C. PORTS, https://perma.cc/6WMN-UJHM (last visited July 12, 2024), Attachment 5.
[15] *North Carolina Ports Moves Up Three Spots to #1 in North America for Container Terminal Efficiency*, N.C. PORTS (May 22, 2023), https://perma.cc/8439-RYQ8; *Cargo Handling*, N.C. PORTS, https://perma.cc/5SNF-HV6B (last visited July 12, 2024).
[16] Rebecca Cohen, *More Than 200 Ships Are in a Traffic Jam Outside the Panama Canal, Showing We Can't Get Through a Year Without Big Boats Getting Stuck*, BUS. INSIDER (Aug. 23, 2023), https://www.businessinsider.com/traffic-jam-outside-panama-canal-hundreds-ships-2023-8, Attachment 6.
[17] *Id.*
[18] *Id.*
[19] *Panama Canal Drought Impact on Global Shipping*, GEP (Mar. 04, 2024), https://perma.cc/YZA2-RD5F, Attachment 7.
[20] *Id.*
[21] Nat'l Drought Mitigation Ctr., *U.S. Drought Monitor: North Carolina,* UNL (data valid: July 9, 2024 at 8 a.m. EDT), https://perma.cc/UVX7-P98A, Attachment 8.
[22] Jeremy S. Hoffman et al., *Southeast*, *in* U.S. GLOBAL CHANGE RSCH. PROGRAM, FIFTH NATIONAL CLIMATE ASSESSMENT (A.R. Crimmins et al. eds., 2023), Attachment 9.
[23] U.S. Army Corps of Eng'rs, Wilmington Harbor 403 Scoping Public Meeting Slides at PDF p. 56 (June 2024), https://perma.cc/RV2B-29TS ("Total cargo throughput is anticipated to be the same with or without a project.") [hereinafter "2024 Scoping Slides"].
[24] *See Harbor Enhancement*, N.C. PORTS, https://perma.cc/Y77T-9CZM (last visited July 12, 2024), Attachment 10 (discussing the project benefits); Jalyn Baldwin, *NC Port Authority Revamping Rail Yard and Terminal Entrance, a $50M Project to Boost Efficiency*, PORT CITY DAILY (June 4, 2024), https://portcitydaily.com/local-news/2024/06/04/nc-port-authority-revamping-rail-yard-and-terminal-entrance-a-50m-project-to-boost-efficiency/

transparently demonstrate a need for this project—taking into consideration regional and global shipping conditions—before continuing in its NEPA review.[25]

Articulating a proper purpose and need is also central to the NEPA analysis as it informs the scope of alternatives considered and compared against the proposed action, and by extension, informs the entire environmental review of a project. By failing to articulate a proper need and limiting the range of alternatives to varying depths of deepening, the Corps wrongly presumes that deepening is the only way to achieve the project's purpose. The Corps should revise its statement of purpose and need for this project to address the flaws above—and reconsider the range of alternatives that could meet that purpose and need. Fundamentally, the Corps should transparently and honestly consider non-deepening alternatives including, but not limited to, the no-action alternative.

III. The Corps' assumption that cargo growth trends will remain the same across all alternatives will erroneously skew the agency's impact and alternatives analysis.

The Corps claims it will assume "the action alternatives will *not* increase the volume of cargo differently than the without project scenario,"[26] and "[t]otal cargo throughput" will be "the same with or without a project."[27] The agency has rationalized this assumption by asserting that the amount of cargo entering the Port will continue to grow at an anticipated rate regardless of any changes made to the size of the Harbor.[28] As a preliminary matter, we question this assumption as it directly conflicts with statements made by project proponents. For instance, the Ports Authority currently advertises the expansion as a way to "attract more import and export business" and "boost[] job growth" in North Carolina.[29] The Corps cannot ignore the impacts associated with these clear expectations.

Moreover, experience demonstrates this assumption isn't true. The Corps used this same no-induced growth assumption when evaluating the Savannah Harbor expansion,[30] stating (as it is here) that deepening the Harbor would not induce development or growth around the port. But what happened on the ground tells a different story. Following different stages of the Savannah Harbor expansion, nearly 75 new warehouses were built near the port.[31] Developers also sought to build large-mixed use facilities near the Harbor, some of which were proposed to "handle

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(quoting NC State Ports Authority Director of Real Estate and Planning as stating, "[w]e're making a lot of construction infrastructure activities to be able to increase the capacity on our port . . . [s]o that we can have higher volumes and velocities moving through the ports.").

[25] SELC, 2023 Early Scoping Comments, *supra* note 2, at 4.

[26] 2024 Scoping Slides, *supra* note 23, at PDF p. 21 (emphasis added).

[27] *Id.* at PDF p. 22.

[28] *Id.*

[29] N.C. PORTS, *Harbor Enhancement*, *supra* note 24.

[30] U.S. Army Corps of Eng'rs, Final General Re-Evaluation Report for Savannah Harbor Expansion Project 72 (Jan. 2012) (describing the methodology used to develop the commodity tonnage forecast used to evaluate the no action and all deepening alternatives in Savannah).

[31] S. Env't L. Ctr., Warehouse Development Near the Port of Savannah (July 10, 2024) (up to date through June 2023), Attachment 11.

some of the increased container traffic into the Savannah port resulting from the introduction of the significantly larger post-Panamax Canal ships."[32] This development only occurred because of the port expansion, but because of the Corps' assumption, the associated impacts were ignored.

The agency should not make the same mistake in Wilmington. The agency must adjust its assumption in order to comprehensively evaluate the effects that more cargo and new infrastructure would have on Wilmington—including the destruction of wetlands, harm to wildlife, increased air emissions, potential community displacement, and environmental justice concerns.[33] Assuming these impacts would occur to the same extent with or without the harbor expansion not only fails to reflect reality, but also downplays the scope of impacts, skewing the alternatives analysis in favor of the deepening. As the Fourth Circuit has held, "without [accurate baseline] data, an agency cannot carefully consider information about significant environmental impacts . . . resulting in an arbitrary and capricious decision."[34] Such an improper baseline assumption is a "mischaracterization related to a critical aspect of the NEPA process."[35] Indeed, "[i]naccurate economic information may defeat the purpose of an EIS by 'impairing the agency's consideration of the adverse environmental effects' and by 'skewing the public's evaluation' of the proposed agency action."[36] The Corps must independently analyze the economic implications of each alternative and transparently disclose all impacts associated with the requisite level of induced growth.

IV. The environmental impacts from the proposed expansion continue to become more severe.

Port expansions are some of the most environmentally damaging projects undertaken in coastal areas. For nearly five years, we have raised significant concerns with the potential environmental impacts of the proposed expansion.[37] For instance, we previously highlighted:

- Expanding the Harbor would increase wetland and shoreline erosion as the channel is "softened," exacerbating already dramatic erosion occurring in Wilmington and at nearby beaches. Larger vessel wakes produced by larger

[32] U.S. Army Corps of Eng'rs, Public Notice: Notice of Intent to Prepare a Draft Environmental Impact Statement (DEIS) for the RiverPort Development and Proposed New Interchange on I-95 in Jasper County, South Carolina and Notice of Scoping Meeting, SAC-2010-00064 (July 31, 2014), https://perma.cc/435D-ZSFM, Attachment 12.
[33] We acknowledged that the Corps has the responsibility to assume there will be "no growth in quantity demanded from the without-project condition" when completing its economic evaluation under its National Economic Development Procedures. U.S. Army Corps of Eng'rs, *Deep Draft Navigation IWR Report 10-R-4 National Economic Development Manual for Deep Draft Navigation* (Apr. 2010), at 104, https://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/10-R-4_NED_DeepDraft.pdf. But the Corps has different obligations under NEPA—namely to comprehensively study the direct, indirect, and cumulative impacts (including economic impacts) of the proposed project.
[34] *N.C. Wildlife Fed'n v. N.C. Dep't of Transp*., 677 F.3d 596, 603 (4th Cir. 2012) (quoting *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1085 (9th Cir. 2011)) (alteration in original).
[35] *Id.*
[36] *NRDC v. U.S. Forest Serv.*, 421 F.3d 797, 811 (9th Cir. 2005).
[37] *See* SELC 2019 Scoping Comments, *supra* note 2; SELC 2023 Scoping Comments, *supra* note 2.

ships would further increase erosion in the project area and increase overwash of migratory bird nests.

- Deepening the Harbor would cause saltwater from the Atlantic Ocean to intrude upstream which would not only alter the natural interaction between saltwater and freshwater in the river basin, but destroy unique habitats such as bottomland cypress forests that are already vulnerable to climate change.
- Dredging to deepen the Harbor could contaminate groundwater aquifers through saltwater intrusion or reducing the thickness of the confining layer separating the bottom of the river and the aquifer, thereby threatening the drinking water for many communities in Southeastern North Carolina.
- Increased vessel, train, and truck traffic at the Port would have significant impacts on local air quality by emitting nitrogen oxides, particulate matter, carbon monoxide, and other harmful compounds.
- The induced growth caused by the expansion would create more impervious surfaces around the Harbor resulting in increased vulnerability to flooding, storm surge, and sea level rise.
- Expanding the Harbor would require more extensive, and possibly more frequent maintenance dredging. Subsequent maintenance dredging–especially if undertaken outside of the winter months–would risk more injured or killed marine life, including endangered sea turtles and sturgeon.
- Noise pollution caused by both the deepening project itself and increased vessel traffic in the Harbor would impact fish and wildlife species by causing deafness, reduced communication ranges, and heightened stress.
- The expansion has the possibility of negatively impacting low-wealth and minority communities near the Harbor through the introduction of increased air pollution, water quality concerns, displacement, and increased land-based traffic near these communities.

These concerns remain as significant today as they did when this project was initially proposed, and we refer the Corps to our past comments for a deeper discussion on each. Below, we bring the agency's attention to categories of impacts where new information is relevant to the Corps' NEPA analysis.

Sea Level Rise

Sea level rise is one of the most severe consequences of a changing climate, and the communities and ecosystems that surround Wilmington Harbor are already facing the effects of accelerated sea level rise and associated worsening erosion, saltwater intrusion, inundation risk,

storm surges, and tidal flooding.[38] Without significant efforts to curb emissions, higher sea level projections become more likely and difficult to avert.[39] Given this climate reality, it is critical that the Corps assess how rising sea levels affect the feasibility of the proposed expansion and its environmental consequences for *every* aspect and alternative of the project using the most updated projections.[40]

Our 2023 comments strongly urged the Corps to incorporate the National Oceanic and Atmospheric Administration's ("NOAA") 2022 Sea Level Rise Technical Report,[41] which presents the most up-to-date relative sea level rise estimates for the country and is a foundational component of the recently released Fifth National Climate Assessment, rather than the three 2013 USACE sea level rise curves. Climate research supports planning for a degree of sea level rise within the likely range predicted for NOAA's 2022 Intermediate-High scenario because it closely mirrors the "present trajectory" of the Southeast.[42] Rather than follow the best science, the Corps has explained that it will move forward with the outdated 2013 USACE sea level rise curves,[43] noting that the 2013 USACE High Curve would serve as a proxy for NOAA's 2022 Intermediate-High scenario.[44] This approach misrepresents the full scope of impact at Wilmington, as the 2013 USACE Low and Intermediate curves fall drastically short of NOAA's 2022 projections and the observed sea level rise at Wilmington.[45] While the Corps may be able to use the 2013 USACE High curve as a proxy for the NOAA 2022 Intermediate-High scenario, to effectively model the impact that sea level rise will have on the project area, the Corps must plan for sea level rise beyond what is anticipated by the 2013 USACE High curve.

Underestimating the encroachment of rising seas could lead to unwise planning decisions, weaker resilience measures, and band-aid responses that will be rendered ineffective. There is ample evidence that the extrapolation of current trends is not a reliable estimate of future

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[38] A recent Washington Post profile of tidal flooding in the nearby town of Carolina Beach highlighted the impacts of sea level rise in the town with a video time-lapse of tidal flooding, a scene all too familiar for coastal residents. *See* Brady Dennis, Niko Kommenda & Emily Wright, *The Drowning South – Anatomy of a Flood*, WASH. POST (June 11, 2024), https://perma.cc/PC5P-GBVG, Attachment 13.

[39] Sweet et al., GLOBAL AND REGIONAL SEA LEVEL RISE SCENARIOS FOR THE UNITED STATES: UPDATED MEAN PROJECTIONS AND EXTREME WATER LEVEL PROBABILITIES ALONG U.S. COASTLINES, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NOS 01 (2022) [hereinafter "NOAA 2022 SEA LEVEL RISE REPORT"], Attachment 14.

[40] While Corps Guidance ER 1100-2-8162, Incorporating Sea Level Change in Civil Works Programs, directs the Corps to use the Corps' 2013 curves, the Guidance allows for the Corps to incorporate other sea level rise curves into their analysis, in addition to the Corps' 2013 curves, in order to properly evaluate how projects may be affected by sea level rise. *See* U.S. Army Corps of Eng'rs, Incorporating Sea Level Change in Civil Works Programs, ER 1100-2-8162 (2013).

[41] NOAA 2022 SEA LEVEL RISE REPORT, *supra* note 39.

[42] *See id.* at 18 fig.2.8 (showing the "present trajectory" for the Southeast closely mirrors NOAA's 2022 Intermediate-High scenario).

[43] 2024 Scoping Slides, *supra* note 23, at PDF p. 49.

[44] *Id.*

[45] For example, the 2013 USACE Intermediate curve falls short of *even the lowest NOAA scenario* for the Wilmington tidal gauge in 2050, and by 2100 predicts 2.31 feet of sea level rise, a drastically lower number than NOAA's projected 5.05 feet under the 2022 Intermediate-High scenario. *See id.*; Mean Sea Level Dataset for NOAA 2022 SEA LEVEL RISE REPORT, *supra* note 39. Wilmington, NC specific data attached as Attachment 15.

conditions,[46] therefore the lowest scenarios of sea level rise are not reliable for long-term planning and infrastructure siting. It is thus in the best interest of the Harbor and the surrounding communities for the Corps to plan for sea level rise using the most up-to-date projections to ensure long term resilience to climate impacts. The Corps must also analyze the interrelated effects of the proposed expansion and whether or to what degree expanding the Harbor would exacerbate the effects already presented by rising sea levels using the best available science and projections.[47] In addition to the impacts discussed below, we recommend the Corps refer directly to the Fifth National Climate Assessment's findings on the impacts of sea level rise to provide this context.[48]

Compound Flooding

A comprehensive look at the effects of sea level rise on increased flooding risk cannot just include sea level projections but must also consider how rising seas exacerbate other flooding. Higher seas provide a higher launching point for rainfall-driven flooding and storm surge and can make it harder for stormwater infrastructure to discharge as designed. One of most visible consequences of sea level rise in Wilmington is the change in land exposed to high tide flooding.[49] Where terrain slope is gradual near the shore, a small change in sea height extends the high tide waterline significantly inland. In New Hanover County, models show 12% of currently taxable land will fall within the high tide risk zone by 2050, leaving it exposed daily or near-permanent flooding.[50]

Deepening projects in other Southeast harbors have resulted in marked increases in inland flooding,[51] which only further exacerbates these expected environmental and community impacts. The Corps must evaluate how the proposed channel deepening and other morphological changes may alter water levels, tides, and associated flooding in conjunction with relative sea

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[46] NASA scientists recently discovered that the Thwaites Glacier in Antarctica is more unstable than previously thought, and the collapse of this ice mass alone could increase global sea levels by two feet. P. Milillo et al., *Heterogeneous retreat and ice melt of Thwaites Glacier, West Antarctica*, 5 SCI. ADVANCES 1 (2019), https://doi.org/10.1126%2Fsciadv.aau3433; *see also* Douglas Fox, *Warm Water is Sneaking Underneath the Thwaites Glacier — And Rapidly Melting It*, SCIENCENEWS (May 30, 2024), https://perma.cc/Q25B-WZPT.

[47] Several of the laws governing the Corps' environmental review require the use of current data. *E.g.* 16 U.S.C. § 1536(a)(2) (requiring the use of the "best scientific and commercial data available" in consultation under the Endangered Species Act); 42 U.S.C. § 4332(2)(D) (when preparing an EIS under NEPA, "[a]gencies shall ensure the professional integrity, including scientific integrity, of the discussion and analysis in an environmental document").

[48] Christine L. May et al., *Coastal Effects*, *in* U.S. GLOBAL CHANGE RSCH. PROGRAM, FIFTH NATIONAL CLIMATE ASSESSMENT (A.R. Crimmins et al. eds., 2023), Attachment 16.

[49] High tide flooding (or flooding that occurs unrelated to a storm) is expected to increase in Wilmington resulting in 40 to 65 high tide flood days *per year* by 2050. *Annual High Tide Flooding Outlook*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., https://perma.cc/4M6C-SJ95 (last visited June 24, 2024), Attachment 17.

[50] Climate Cent., *Sinking Tax Base: Land Parcels, Improvements (Buildings), and the Rising Sea – New Hanover County, NC* (2022), Attachment 18.

[51] Maqsood Mansur et al., *Estuarine response to storm surge and sea-level rise associated with channel deepening: a flood vulnerability assessment of southwest Louisiana, USA*, 16 NAT. HAZARDS 3, 3879–97 (2023).

level rise projections.[52] In doing so, we urge the Corps to carefully consider the horizontal footprint of the anticipated rise, as 1 inch of vertical change in sea level translates into 8.5 feet of horizontal loss on the average coastline.[53] Small changes in the Mean High Water line could have significant impacts on New Hanover's environment, citizens, and economy—8,101 acres of land and improvements that are now above the Mean High Water line are projected to be below it by 2050.[54] These properties at risk represent $225.93 million of the assessed land value in the County's current tax base.[55]

Wetland Loss

There are increasing concerns about the influence that declining water quality is having on submerged aquatic vegetation and wetlands across the North Carolina coast.[56] Wilmington has a wealth of tidal marsh that will need to migrate inland in order to survive as sea levels rise. This expanse of marsh is a nationally significant resource, with major contributions to North Carolina's fishery economies, cultural heritage, carbon storage, and flood protection for communities and for Wilmington Harbor.[57] Continued development in potential marsh migration spaces cuts off the marsh's evacuation route and through time can result in the loss of the marshland and its benefits.[58] Losing this resource by not adequately preparing and planning for marsh migration would not only threaten the multi-generational communities dependent on marshes for their livelihoods and culture, but also the hundreds of species that spend part of their life-cycles in marshes.[59]

Meanwhile, research continues to be published on the adverse effects of port expansions on coastal habitats, such as contaminated dredge spoil,[60] vessel wakes damaging marsh

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[52] *See* NAT'L ATMOSPHERIC & OCEANIC ADMIN., NOS CO-OPS 086, PATTERNS AND PROJECTIONS OF HIGH TIDE FLOODING ALONG THE U.S. COASTLINE USING A COMMON IMPACT THRESHOLD 27–28 (2018), Attachment 19 (comparing trends in annual relative sea level rise and daily high-water variance at U.S. ports with and without deepening).

[53] *Tracking 30 Years of Sea Level Rise*, NASA EARTH OBSERVATORY (Aug. 11, 2022), https://perma.cc/DV6Q-X8VF.

[54] Climate Cent., *supra* note 50.

[55] *Id.*

[56] N.C. DEP'T OF ENV'T QUALITY, NORTH CAROLINA COASTAL HABITAT PROTECTION PLAN: 2021 AMENDMENT, at iii (2021), https://perma.cc/7DBM-8TFU.

[57] Exec. Order No. 305, An Order to Protect and Restore North Carolina's Critical Natural and Working Lands (Feb. 12, 2024), https://governor.nc.gov/executive-order-no-305/open.

[58] Ne. Reg'l Ocean Council, *Make Way for Marshes* (2015), https://www.waterviewconsulting.com/MakeWayforMarshes.pdf, Attachment 20.

[59] NAT'L MARINE FISHERIES SERV., NMFS-F/SPO-229A, FISHERIES ECONOMICS OF THE UNITED STATES 2019.

[60] *See*, *e.g.*, Dimitrios G. Giarikos et al., *Assessing the ecological risk of heavy metal sediment contamination from Port Everglades Florida USA*, PEERJ 11:e16152 (2023).

habitats,[61] and beach nourishment degrading wildlife nesting habitat.[62] The Corps must consider such impacts and how they would threaten these already vulnerable habitats. We strongly encourage the Corps to work with local groups where data regarding these natural resources is needed and to evaluate potential project impacts to the greatest extent possible.

Species of Concern

For nearly five years, we have repeatedly highlighted how deepening and widening the Harbor could seriously harm wildlife in and around the Cape Fear River and Wilmington. Given the significant risk, we reiterate the importance of thoroughly studying these impacts. A wide variety of rare and sensitive species could be affected, including multiple that are federally protected under the Endangered Species Act, such as sea turtles (loggerhead, green, and Kemp's ridley), North Atlantic right whales, piping plovers, red knots, eastern black rail, sturgeon (Atlantic and shortnose), and manatees, among others. For example, increased shipping traffic would present increased vessel strike risk to species like the critically endangered North Atlantic right whale, and increased dredging could cause increased death and maiming of sea turtles and other coastal wildlife. In addition to these species, in the past year, the Fish and Wildlife Service finalized a rule listing the magnificent ramshorn snail as endangered with critical habitat—and the snail was recently released into the wild near the project area[63] Other rare species, like the aptly named rare skipper (*Problema bulenta*) butterfly, Venus flytrap, and diamondback terrapin could be further imperiled by the project, as would the 30% of the state's nesting coastal waterbirds that breed on the lower reaches of the River—especially through indirect and cumulative effects of increased development in their habitats and sea level rise.

The expansion would destroy and impair onshore and aquatic habitats in a variety of ways, including from increased erosion of nesting and foraging habitats, budget. Larger or more frequent ship wakes, along with changes in the hydrodynamics from deepening and widening, would mean more destruction of shorebird nests directly through overwash of eggs and chicks as well as indirectly and cumulatively through degradation and loss of low-lying shoreline habitat. The Corps must thoroughly and comprehensively consider, and disclose to the public, how the project could harm federally and state protected species and other wildlife.

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[61] *See*, *e.g.*, Hoda El Safety & Reza Marsooli, *Ship Wakes and Their Potential Impacts on Salt Marshes in Jamaica Bay, New York*, 39 J. MARINE SCI. & ENG'G 2, 207–20 (2020); Ramin Familkhalili & S.A. Talke, *The effect of channel deepening on tides and storm surge: A case study of Wilmington, NC*, 43 GEOPHYSICS. RES. LETTERS 9138–47 (2016).

[62] *See*, *e.g.*, Cherdvong Saengsupavanich et al., *Jeopardizing the environment with beach nourishment*, 868 SCI. TOTAL ENV'T 4: 161485 (2023), Attachment 21; Kaitlynn M. Shamblott et al., *The thermal impacts of beach nourishment across a regionally important loggerhead sea turtle (Caretta caretta) rookery*, 12 ECOSPHERE 3 (2021), https://doi.org/10.1002/ecs2.3396.

[63] Brynn Garner, *Magnificent Ramshorn Snails Are Back in the Wild for the First Time in Nearly 20 Years*, U.S. FISH & WILDLIFE SERV. (Nov. 29, 2023), https://perma.cc/X2Z5-6VFP.

PFAS or Forever Chemicals

As we noted last year, the water and sediment in the Lower Cape Fear River are contaminated with per- and polyfluoroalkyl substances ("PFAS"), a group of nearly 12,000 chemicals that are toxic to humans and wildlife at incredibly low concentrations.[64] Once released, PFAS do not break down in the environment and instead bioaccumulate in the sediment, people, and wildlife exposed—earning them the name "forever chemicals."[65] The high levels of certain PFAS in the Lower Cape Fear River threaten those who drink, fish, swim, and otherwise use and rely on the Cape Fear River.

Over the past year, new rules have been adopted to protect communities and the environment from these toxic chemicals. The U.S. Environmental Protection Agency ("EPA") has classified two PFAS—perfluorooctanoic acid ("PFOA") and perfluorooctanesulfonic acid ("PFOS")—as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), acknowledging that the chemicals "present substantial danger to public health or welfare or the environment."[66] This designation now prohibits the "release" of PFOA and PFOS, defined broadly to include spilling, discharging, escaping, dumping, and disposing.[67] Dredging has been long been understood to cause significant releases of hazardous chemicals, in violation of CERCLA—so much so that those tasked with remediation are often encouraged to find alternative methods that avoid dredging up contaminated sediments.[68] In light of this designation, the Corps must evaluate to what extent construction, maintenance, and dredged material disposal could contribute to a release of these hazardous substances into the surrounding environment. In doing so, the Corps should, among other things, transparently disclose the presence of hazardous chemicals when (1) preparing its EIS, (2) seeking a water quality certification from the state, (3) evaluating impacts to wildlife protected under the Endangered Species Act, and (4) considering disposal options—including any beneficial reuse.

EPA has also set national drinking water standards for several PFAS known to be present in the Lower Cape Fear River.[69] The rule requires that public water systems, including groundwater systems, monitor and reduce the level of PFAS in their drinking water to levels that

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[64] SELC, 2023 Early Scoping Comments, *supra* note 2, at 12–14.
[65] Arlene Blum et al., *The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs)*, 123 ENV'T HEALTH PERSP. 5, A 107 (May 2015); Bushra Khan et al., *Occurrence and Bioaccumulation Patterns of Per- and Polyfluoroalkyl Substances (PFAS) in the Marine Environment*, 3 ACS EST WATER 5, 1243–59 (Apr. 19, 2023), https://doi.org/10.1021/acsestwater.2c00296, Attachment 22.
[66] Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances, 89 Fed. Reg. 39124, 39125 (May 8, 2024).
[67] 42 U.S.C. § 9601(22).
[68] *See, e.g.*, Jacob Kvasnicka et al., *Dredging Contaminated Sediments: Is It Worth The Risks*?, 39 ENV'T TOXICOLOGY & CHEMISTRY 3, 515 (Jan. 29, 2020), https://doi.org/10.1002/etc.4679; NAT'L RSCH. COUNCIL, CONTAMINATE SEDIMENT IN PORTS AND WATERWAYS, CLEANUP STRATEGIES AND TECHNOLOGIES 15–29 (1997), https://nap.nationalacademies.org/read/5292/chapter/3.
[69] PFAS National Primary Drinking Water Regulation, 89 Fed. Reg. 32532 (Apr. 26, 2024).

EPA has deemed acceptable.[70] Multiple communities in the Lower Cape Fear River source their drinking water from groundwater aquifers that could be compromised by the Corps' deepening efforts. The Corps must comprehensively evaluate the risk of injecting PFAS-laden water into the groundwater systems, and whether such activities could cause PFAS contamination exceeding EPA's drinking water standards.

New information at the state level is also relevant to the Corps' analysis. In July 2023, the North Carolina Department of Health and Human Services issued fish consumption advisories in the Middle and Lower Cape Fear River, recommending that North Carolinians severely limit their consumption of American shad, blue catfish, and channel catfish to no more than 1-7 meals per year.[71] The advisories also recommend that certain vulnerable populations completely avoid eating bluegill, flathead catfish, largemouth bass, striped bass, and redear.[72] In recognition of the contamination that already exists, the Corps must evaluate whether its actions could increase the level of PFAS and other contaminants[73] in the culturally and economically important fish species in the Cape Fear River, further threatening those who fish for recreation and subsistence.[74]

V. Conclusion

The Corps knows that this project would be harmful to the Cape Fear River and those who rely upon it. Now more than ever, we urge the agency to use this scoping period to meaningfully consider whether this project's purported benefits (should they even be true) exceed the devastating environmental costs. Expanding the Harbor without careful evaluation of all impacts and alternatives—including the no-action alternative—would not only violate the law, but would place the burden of unnecessary development on those who call Wilmington home.

We appreciate the opportunity to provide comments regarding the proper scope for the Corps' NEPA analysis and 403 Letter Report. We look forward to remaining engaged with the Corps and other agencies through the environmental review process.

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[70] *Id.*
[71] *NCDHHS Recommends Limiting Fish Consumption From the Middle and Lower Cape Fear River Due to Contamination With "Forever Chemicals,"* N.C. DEP'T HEALTH & HUM. SERVS. (July 13, 2023), https://perma.cc/E8FU-N69H.
[72] *Id.*
[73] *See* Elizabeth Shapiro-Garza et al., *Subsistence Fish Consumption on the Lower Cape Fear River: Summary of Research 2016–2022*, DUKE UNIV. SUPERFUND RES. CTR. & OAKLAND UNIV. (2022), https://perma.cc/U4HG-HFYQ (summarizing the fish consumption advisories and contamination findings for heavy metals, PCBs, dioxins in the Lower Cape Fear River); *see also* Anna Hardy et al., *Biomagnification of Mercury in an Estuarine Food Web*, 26 MAR. POLLUTION BULL. 205 (Jun. 2024), Attachment 23 (explaining the presence of methylmercury in species of the lower Cape Fear River).
[74] *See* Will Atwater, *NC River Toxins Threaten Subsistence Fishing, Tribal Practices*, COASTAL REV. (July 19, 2023), https://perma.cc/7T6R-WXUH.

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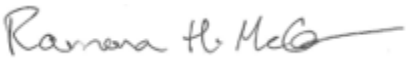

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Attachments available at the following links:

- Attachments for SELC's 2024 Scoping Comments:
https://southernenvironment.sharefile.com/d-s14b473447fbb4d0d8bf582eba0dd30e2

- Attachments for SELC's 2023 Early Scoping Comments:
https://southernenvironment.sharefile.com/d-sfbe078fed9234ccdb28ffbe5733a4773

- Attachments for SELC's 2019 Scoping Comments are provided in Attachment 1 of this letter.