PUBLISHED

UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

No. 19-2151

NATIONAL AUDUBON SOCIETY,

Plaintiff - Appellant,

v.

UNITED STATES ARMY CORPS OF ENGINEERS; COLONEL ROBERT J. CLARK, in his official capacity as District Commander of the Wilmington District; THE TOWN OF OCEAN ISLE BEACH,

Defendants - Appellees.

Appeal from the United States District Court for the Eastern District of North Carolina, at Wilmington. Louise W. Flanagan, District Judge. (7:17-cv-00162-FL)

Argued: December 8, 2020 Decided: March 26, 2021

Before GREGORY, Chief Judge, and NIEMEYER, and RICHARDSON, Circuit Judges.

Affirmed by published opinion. Judge Niemeyer wrote the opinion, in which Chief Judge Gregory and Judge Richardson joined.

ARGUED: Leslie Griffith, SOUTHERN ENVIRONMENTAL LAW CENTER, Chapel Hill, North Carolina, for Appellant. Eric Allen Grant, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D.C.; Todd S. Roessler, KILPATRICK TOWNSEND & STOCKTON LLP, Raleigh, North Carolina, for Appellees. **ON BRIEF:** Geoffrey Gisler, Kimberley Hunter, SOUTHERN ENVIRONMENTAL LAW CENTER, Chapel Hill, North Carolina, for Appellant. Jeffrey Bossert Clark, Assistant Attorney General, Martin F. McDermott, Claudia Antonacci Hadjigeorgiou, Andrew Coghlan, Sommer H. Engels,

Environment and Natural Resources Division, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D.C.; Carl E. Pruitt Jr., Melanie L. Casner, UNITED STATES ARMY CORPS OF ENGINEERS, Washington, D.C., for Appellee United States Army Corps of Engineers. Joseph S. Dowdy, Phillip A. Harris, Jr., KILPATRICK TOWNSEND & STOCKTON LLP, Raleigh, North Carolina, for Appellee Town of Ocean Isle Beach.

NIEMEYER, Circuit Judge:

The U.S. Army Corps of Engineers granted the Town of Ocean Isle Beach, North Carolina, a permit to construct on its shoreline a "terminal groin" — a jetty extending seaward perpendicular to the shoreline — to arrest chronic erosion of its beaches. The Corps supported its action with the issuance of an Environmental Impact Statement and a Record of Decision.

The National Audubon Society, an organization dedicated to conserving habitat for wildlife, commenced this action in the district court, challenging the issuance of the permit on the ground that numerous analyses conducted by the Corps in both its Environmental Impact Statement and its Record of Decision were inconsistent with the National Environmental Policy Act and the Clean Water Act. On cross-motions for summary judgment, the district court rejected the Audubon Society's challenges and entered judgment for the Corps.

Reviewing the Corps's action under the most deferential standard provided by the Administrative Procedure Act ("APA"), we conclude that the Corps adequately examined the relevant facts and data and provided explanations that rationally connected those facts and data with the choices that it made. Therefore, we affirm.

I

Ocean Isle Beach is a barrier island located in Brunswick County, North Carolina, that is 5.6 miles long and 0.6 miles wide and is oriented in an east-west direction parallel to the coastline. The island faces the Atlantic Ocean to the south and the Atlantic

Intracoastal Waterway to the north, and it is bounded on the east by Shallotte Inlet and on the west by Tubbs Inlet.

Over the years, Ocean Isle Beach has suffered chronic erosion, despite the Town's continuing efforts at beach renourishment by dumping dredged sand onto the beach and strategically placing protective sandbags. There are 238 parcels of land at the east end of the island that are at the greatest risk of loss by erosion, including 45 homes. To date, 5 homes have been lost, as have some 560 feet of streets and related utility lines. Currently, renourishment is conducted on behalf of the Town under a federal program that dumps an average of roughly 400,000 cubic yards of sand on its beaches every three years.

After retaining an engineering firm, the Town applied to the U.S. Army Corps of Engineers in May 2012 for a permit under the Clean Water Act to construct a terminal groin at the east end of the island. The proposed groin would be 1,050 feet long with 300 feet landside to anchor it and 750 feet extending seaward from the shoreline. The expectation was that the groin would trap sand on its west side, thus replenishing the beach there, and would also "leak" some sand and water to the east side. The proposal submitted to the Corps also included a plan to dredge the Shallotte Inlet every five years and place the dredged sand on the west side of the groin to maintain a permanent sand fillet there.

In addition to considering the Town's proposal for the terminal groin project, the Corps evaluated four alternatives:

- Alternative 1 was a "no action" plan that functioned as the baseline for analysis. In this scenario, the United States would continue its efforts of dredging Shallotte Inlet to nourish the island's beaches roughly every three years, as it had since 2001. This scenario also forecast that the Town would

continue to use sandbags to slow erosion and that homes might need to be relocated to safer parts of the island as erosion continued.

- Alternative 2 was the "abandon/retreat" plan, under which the federal nourishment program would continue but the use of sandbag barricades would end. Other emergency actions to slow erosion would, however, be taken as needed.

- Alternative 3 was the "beach fill only" plan that would provide nourishment of additional sand dredged from the Shallotte Inlet beyond the quantities provided under the federal nourishment program.

- Alternative 4 combined Alternative 3's increased beach nourishment with targeted dredging to realign the channel in the Shallotte Inlet. Over time, repeated dredging in the "borrow area" of the Shallotte Inlet would permanently realign the channel to reduce erosion of the island.

The Town's proposed construction of the terminal groin, as described, was denominated Alternative 5.

The Corps evaluated the Town's proposal and the alternatives under the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 *et seq.*, and the Clean Water Act ("CWA"), 33 U.S.C. § 1344, to determine each alternative's effectiveness, environmental impacts, and costs. After a comprehensive, years-long study, involving input from numerous agencies and comments from the public, the Corps issued a final Environmental Impact Statement dated April 15, 2016, in which it evaluated the environmental and economic costs of each alternative. It relied mainly on the output of the "Delft3D model," adjusting some of the results to align with historically observed rates of erosion. The Delft3D model is a sophisticated simulation tool capable of taking into account water and sediment flows in the context of water level, tides, currents, waves, and wind. The Corps

also considered the costs and environmental effects of dredging sand from Shallotte Inlet, nourishing the beach, and building permanent structures like the groin.

Some nine months after it published its Environmental Impact Statement — on February 27, 2017 — the Corps issued its Record of Decision, concluding that Alternative 5 (construction of the terminal groin) was the "least environmentally damaging practicable alternative." It found that while Alternatives 3, 4, and 5 were practicable and achieved the purpose of reducing erosion, Alternative 5 involved the fewest environmental effects of the three because it would require less beach nourishment than Alternatives 3 or 4. Accordingly, the Corps signed a CWA permit on February 28, 2017, authorizing the Town to construct the terminal groin. The permit, however, required that construction of the groin comply with 56 special conditions, including all of those proposed by both the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, which were designed to avoid and mitigate potential adverse consequences to wildlife.

The National Audubon Society commenced this action against the Corps and the Town of Ocean Isle Beach, challenging both the Corps's Environmental Impact Statement and its Record of Decision. On the parties' cross-motions for summary judgment, the district court granted judgment to the Corps and denied the Audubon Society's motion. *See Nat'l Audubon Soc'y v. U.S. Army Corps of Eng'rs*, 420 F. Supp. 3d 409 (E.D.N.C. 2019). The court rejected the Audubon Society's various challenges to the Corps's analyses, concluding, as most relevant to this appeal, that the Corps's reliance on the Delft3D model to meaningfully compare alternatives was not arbitrary and capricious. It noted also that the Corps appropriately adapted the Delft3D model results to reflect

historical erosion data and thereby ensure more accurate economic costs. And it concluded further that the Corps, working within the constraints of available modeling, appropriately projected environmental effects in both quantitative and qualitative terms. Also relevant to this appeal, the court rejected the Audubon Society's claims that the Corps did not comply with the CWA, finding that the Corps's evaluation of the terminal groin's secondary effects on the environment was reasonable, as was the Corps's calculation of the frequency of beach-nourishment events. Finally, the court concluded that the Corps properly exercised its subject-matter expertise to weigh each alternative's costs and benefits, while taking into account the opinions of other agencies, to conclude that the terminal groin was the least environmentally damaging practicable alternative.

From the district court's judgment dated September 25, 2019, the Audubon Society filed this appeal.

II

We review the district court's summary judgment de novo, applying the same standard as that court was required to apply. In this case, the district court reviewed the Corps's final agency action under the standard of review fixed by the APA, determining whether the agency's action was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

An action is arbitrary or capricious if "the agency relied on factors that Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before

the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Hughes River Watershed Conservancy v. Johnson*, 165 F.3d 283, 287–88 (4th Cir. 1999) (citing *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)). In other words, "so long as the agency provides an explanation of its decision that includes a rational connection between the facts found and the choice made, its decision should be sustained." *Am. Whitewater v. Tidwell*, 770 F.3d 1108, 1115 (4th Cir. 2014) (cleaned up).

This standard is "highly deferential, with the presumption in favor of finding the agency action valid." *Ohio Valley Envtl. Coalition v. Aracoma Coal Co.*, 556 F.3d 177, 192 (4th Cir. 2009). Moreover, the agency is owed particular deference when exercising its judgment in resolving factual disputes that "implicate substantial agency expertise" and that require the agency to "balance often-competing interests." *Am. Whitewater*, 770 F.3d at 1115 (cleaned up). And "[w]hen an agency is called upon to make complex predictions within its area of special expertise, a reviewing court must be at its *most* deferential." *Ohio Valley*, 556 F.3d at 205 (emphasis added) (quoting *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 103 (1983)). After all, courts have neither the mandate nor the technical expertise to "sit as a scientific body, meticulously reviewing all data under a laboratory microscope." *Nat. Res. Def. Council v. EPA*, 16 F.3d 1395, 1401 (4th Cir. 1993); *see also Trinity Am. Corp. v. EPA*, 150 F.3d 389, 395 (4th Cir. 1998) (noting the "technological and scientific questions at the outer limits of a court's competence" (cleaned up)). Of course, a court should take care under any level of deference to not conduct judicial review with simply a "rubber stamp." *Ohio Valley*, 556 F.3d at 192 (cleaned up).

The agency action that is subject to our review in this case does, indeed, involve complex predictions within the Corps's area of special expertise, and therefore our review of its action is *most* deferential. *See Ohio Valley*, 556 F.3d at 205.

III

In issuing the CWA permit to the Town, the Corps was required by NEPA to first issue an Environmental Impact Statement, analyzing potential environmental consequences, calculating the economic costs of each alternative, and making the information available to the public to enable it to play a role in the decisionmaking process. *See* 40 C.F.R. §§ 1508.7, 1508.8, 1508.25 (2015); *see also Balt. Gas & Elec. Co.*, 462 U.S. at 97. And in rendering its Record of Decision under the CWA, it was required to consider whether there are "practicable alternative[s]" that are consistent with the "overall project purpose[]" for which a permit is sought. 40 C.F.R. § 230.10(a). If so, the Corps may only issue the permit for the practicable alternative that is the least environmentally damaging, taking into account "short-term," "long-term," "cumulative," and "secondary effects," as well as "cost[s], existing technology, and logistics in light of the overall project purposes." *Id.*; *id.* § 230.11.

The Audubon Society challenges various aspects of the Corps's analyses in discharging its responsibilities under both NEPA and the CWA, and we consider each in turn.

A

The Audubon Society argues first that the Corps did not, in its Environmental Impact Statement, accurately portray the economic costs and environmental effects of each alternative because it mixed its sources of data in considering each alternative. While projections of environmental effects were based on the direct output of the Delft3D model, projections of economic costs were adjusted based on historical rates of erosion. Under Alternative 1, for example, the Delft3D model indicated that the erosion of sand was estimated to be 24,000 cubic yards per year, while the historically observed rate was 91,000 cubic yards per year. The Corps used the first number to calculate environmental effects, while it used the latter number to calculate economic costs. As a result, the Audubon Society insists, the Corps effectively projected "two shorelines for each alternative," using the less-eroded shoreline to predict environmental effects and the more-eroded shoreline to estimate economic costs with the consequence that, as it contends, it was "impossible for the public or the agency to evaluate each alternative as a coherent package of economic and environmental impacts."

But the Corps's use of differing data was justified and, in any event, immaterial. The Corps's approach reflected its judgment about the suitability of the data and the tools available for making the assessments. The Delft3D model provided an initial baseline for both types of effects. Yet the Corps was able to calculate more accurate economic costs based on historical rates of erosion because it had available the necessary data to calculate the volume of sand that would need to be renourished periodically, the primary cost of each alternative. By contrast, environmental effects were more dynamic in nature owing to the

complexity of coastal waters. This relative lack of certainty led the Corps to qualify that environmental effects "should be interpreted with caution," though the data were still adequate to reveal "trends" and "relative differences." And because no reliable historical data for habitat acreage was available, the Corps was unable to make the same adjustment for environmental effects that it had made for economic costs. Neither NEPA nor the APA requires that the Corps attempt to extend its predictions beyond the limitations of available technology. Thus, the use of these distinct data for distinct purposes was not an inappropriate judgment.

What's more, the use of distinct data was of no consequence to the Corps's task of assessing *among alternatives* the environmental and economic effects. The Corps used the same data derived from the Delft3D model to measure the environmental effects of each alternative. Likewise, in determining economic costs, it used the same source of data for each alternative. So regardless of the data source — the Delft3D model or adjusted historical statistics — the ranking of the alternatives would remain the same. Even if the Corps could have adjusted, and chose to adjust, the environmental effects to account for the higher rates of erosion observed in the historical data, the environmental effects of *all* alternatives would likewise increase by the same proportion and produce the same relative comparison of the alternatives. The Audubon Society's concern in this regard is thus not well taken.

B

The Audubon Society argues next that, in the Corps's Environmental Impact Statement, the Corps similarly erred by calculating 30 years of economic costs for each alternative but considering only up to 5 years of data in determining environmental effects. But, again, the Corps provided a reasonable explanation for doing so, and it consistently applied its approach to each alternative.

The Corps modeled each alternative's quantitative environmental effects for an initial period of 3 years, and 5 years for Alternative 5, because those periods fell immediately before each alternative's second scheduled beach-nourishment event. By measuring environmental effects at the time before a planned beach nourishment, the Corps was able to compare "apples to apples," whereas reporting results at a different uniform period would have skewed results because one alternative, having just received nourishment, would have looked deceptively favorable in comparison to another alternative that had not yet received the scheduled nourishment.

Moreover, it is simply not accurate to assert that the Environmental Impact Statement did not analyze environmental effects over the full 30-year period. Rather, the Corps explained that *quantitative data* of environmental effects after the initial 3-year period could only be speculative. *See Town of Cave Creek v. FAA*, 325 F.3d 320, 331 (D.C. Cir. 2003) (finding a shortened quantitative model "was perfectly reasonable" given "the difficulties and uncertainties involved in modeling" over a longer period). Accordingly, it followed its initial quantitative results with a rigorous *qualitative analysis* of each alternative's likely long-term environmental effects. Such a choice to use qualitative

methods over quantitative ones is well within the agency's discretion so long as it "explains its reasons for doing so," as the Corps did here. *League of Wilderness Defs.-Blue Mtns. Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1076 (9th Cir. 2012); *cf. Vill. of Bensenville v. FAA*, 457 F.3d 52, 71 (D.C. Cir. 2006) (upholding an agency's shorter time horizon when "predictions any further along would be of questionable reliability").

In that qualitative analysis, the Corps expressly acknowledged potential long-term effects of the terminal groin that the Audubon Society insists the Corps "ignored." It noted that the groin was proposed to be "semi-permeable" or "leaky" so that seawater, sand, and small marine animals might pass through it. The Delft3D model found that the sand would accrete on the groin's west side for the first year and deprive sand from the east side, but "following [that] initial year of adjustment, the shoreline response east of the [groin] [would] stabilize[]" and begin to accrete sand and regain volume for the betterment of wildlife habitats.

In addition to using the Delft3D model for initial quantitative measurements followed by long-term qualitative predictions, the Corps included in its analysis a series of minimization and mitigation efforts designed to reduce the adverse environmental effects with respect to Alternative 5, anticipating those effects over the full 30-year life of the project. For example, the Town and Corps would be required to monitor the beach habitat and erosion rates and to take corrective measures as necessary, including modifications to the groin.

Finally, the Corps justified using a different set of data — adjusted historical costs — to compute the economic costs over a 30-year period because those data enabled the

Corps to calculate the economic costs in a relatively mechanical manner. But the important fact remains that the economic costs were computed uniformly for each alternative.

We conclude that there was nothing unreasonable about the Corps's approach.

C

For its final challenge to the Environmental Impact Statement, the Audubon Society contends that the Corps failed, with respect to Alternative 4, to model beach nourishment events in tandem with targeted dredging. That failure, the Audubon Society argues, "made it impossible to meaningfully compare Alternative 4 to the other alternatives." But the Corps explained both the purpose and result of its analysis. It modeled Alternative 4 for a total of 6 years, the first 3 matching Alternative 1's rate of erosion to establish a baseline for Alternative 4 and the next 3 years modeling the effects of strategic dredging. That two-step process permitted the Corps to measure the effect of targeted dredging in isolation from the effects of other interventions. The component of Alternative 4 that increased beach nourishment was otherwise observable in the Corps's analysis of Alternative 3, which did not include targeted dredging. In this fashion, the Corps was able to compare Alternative 4 to Alternative 3 for purposes of assessing both alternatives. And in doing so, it found that Alternative 4's repeated dredging caused the intended "build-up of material on the west side of Shallotte Inlet," which the Corps expected to "continue to result in positive shoreline impacts along the east end of Ocean Isle Beach." This was undoubtedly a reasonable explanation involving distinct components of a complex policy choice, and

the Corps was able to compare all alternatives in the same light, ultimately finding Alternative 5 to be the least environmentally damaging practicable alternative.

D

With respect to the Record of Decision, the Audubon Society argues first that the Corps violated the CWA by cutting short its consideration of the "secondary effects" that each proposed alternative would have on the aquatic ecosystem. 40 C.F.R. § 230.11(h). It claims that the Corps considered at most a 5-year period for a 30-year project and thereby failed to comply with the necessary secondary-effects analysis.

But, as already discussed, because of the scheduled beach nourishment by the federal program, Alternatives 1, 2, and 3 were modeled for 3-year periods; Alternative 4 was modeled for a 6-year period; and Alternative 5 for a 5-year period. After those periods, the Corps concluded, any quantitative model would have been too uncertain. Accordingly, it made the discretionary decision to analyze longer-term environmental effects in its qualitative analysis. This analysis was just as reasonable under the CWA regulatory framework as it was under NEPA's for issuance of an Environmental Impact Statement.

E

The Audubon Society next argues that in the Record of Decision, the Corps erred in concluding that Alternative 5 had only negligible environmental effects and would, in some ways, even improve habitat. It contends that the conclusion is irrational in light of repeated comments made to the contrary by federal and state environmental agencies. For instance, the U.S. Fish and Wildlife Service recommended that "the proposed project not be

authorized," citing a terminal groin's potential effects on sea turtles, piping plovers, red knots, and seabeach amaranth in the project area. The Audubon Society points to similar comments submitted by state agencies. In view of these comments, it claims that the Corps "skipped over its crucial obligations to assess and determine the [environmental] effects of the terminal groin."

This argument, however, focuses on select parts of the record while overlooking others and thereby fails to address whether the Corps properly found, based on the entire record, that Alternative 5 was the least environmentally damaging of the practicable alternatives proposed.

In its Record of Decision, the Corps drew primarily on the Delft3D model results and its own qualitative predictions — while also considering public comments and the biological opinions of the U.S. Fish and Wildlife Service and the National Marine Fisheries Service — to determine which practicable alternative was the least environmentally damaging. It found that while all 5 alternatives were "logistically and technologically practicable," Alternatives 1 and 2 were not otherwise practicable because they did "not meet the project purpose and need" of stemming erosion on the island. Alternative 3, it concluded, would reduce erosion, but at a greater environmental and economic cost than Alternatives 4 and 5. And as between Alternatives 4 and 5, the Corps concluded that Alternative 5 was the least environmentally damaging because it would require less frequent and less total volume of beach nourishment. Frequent dredging and beach nourishment, it noted, can damage marine habitats, while the less frequent activity under Alternative 5 would permit those habitats additional time to recover between nourishment

events. The Corps also specifically addressed the Audubon Society's concerns by noting that the Delft3D model showed that under Alternative 5, the beach east of the groin would stabilize after the first year and the accretion of sand west of the groin would increase habitat acreage and improve wildlife, "specifically for birds and sea turtles."

We conclude that the Corps's explanation and reasoning were hardly arbitrary and capricious, even if they were challenged by the Fish and Wildlife Service, another expert agency. *See Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 378 (1989) ("When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, the court might find contrary views more persuasive"). Even so, the permit that the Corps issued in this case included "[a]ll terms and conditions of the U.S. Fish and Wildlife Service's" biological opinion, as well as those of the Marine Fisheries Service. Thus, rather than ignoring the Fish and Wildlife Service, the Corps accommodated the conditions required by it.

In light of the Corps's extensive analysis, explanation, and modeling in reaching its conclusion that Alternative 5 was the least environmentally damaging practicable alternative, we conclude that the Corps acted reasonably.

F

Finally, the Audubon Society contends that the Corps, in its Record of Decision, arbitrarily applied a limit for beach nourishment events such that no beach nourishment under any alternative could exceed 408,000 cubic yards of sand at one time. According to the Audubon Society, that limit resulted in a conclusion, when comparing Alternative 4

and Alternative 5, that overstated the negative environmental effects of Alternative 4. It argues that if the Corps had applied a slightly higher nourishment limit, then its analysis of the relative merits of Alternatives 4 and 5 would have changed, resulting in a different conclusion as to the least environmentally damaging practicable alternative.

The Corps explained in its Environmental Impact Statement that the 408,000-cubic-yard limit provided "an equitable way to compare the impacts and cost of each alternative." That limit was not an arbitrary choice but instead represented, as it explained, "the average volume placed on Ocean Isle Beach every three years to maintain the federal storm damage reduction project." Specifically, between 2001 and 2014, the Town and the federal government nourished the beaches with a total of 1,758,000 cubic yards of sand, averaging 408,000 cubic yards every three years.

The Audubon Society argues, however, that use of the 408,000-cubic-yards number was imperfect because, even though the federal nourishment program called for nourishment events every three years, nourishment in practice was infrequent and uneven. As a consequence, actual nourishments over the period ranged from 155,000 to 800,000 cubic yards of sand at one time. The Corps, however, explained that this gap between the applied average and reality resulted from a confluence of funding shortfalls, lack of coordination between the Town and the federal government, and not least of all, the hurricanes in the region. Nonetheless, it needed a single average applied consistently across the alternatives to conduct a fair analysis. In view of this explanation, we conclude that the Corps's use of the 408,000-cubic-yard limit was not unreasonable.

Additionally, after reviewing the record, we are persuaded by the Corps's explanation that even if the Corps would have changed the average volume for its analysis to a different number, its conclusions favoring Alternative 5 would not have changed. This is because the Corps observed that Alternative 4 required not only more *frequent* nourishment, a fact resulting from the limit on each nourishment event, but also a significantly greater *quantity* of nourishment over the project's life — 3,168,000 cubic yards for Alternative 4 and 2,664,000 cubic yards for Alternative 5. This difference in total nourishment, and the consequent difference in environmental effects, would thus persist regardless of the nourishment limit applied by the Corps.

Finally, the record demonstrates that Alternative 4's beach-nourishment requirements would be front-loaded in the project's first five years. Over that period, Alternative 4 would dredge and relocate 1,152,000 cubic yards of sand from Shallotte Inlet to Ocean Isle's beaches, nearly 75% more than Alternative 5 would require during that same period. The large increase in nourishment in Alternative 4's early years was attributable to the fact that repeated dredging from the same "borrow area" in the Shallotte Inlet was necessary during that time to achieve "the preferred channel alignment." The consequence of that realignment was, at least initially, "more cumulative impacts to the aquatic environment . . . both along the shoreline and at the maintained inlet/borrow site" for Alternative 4. And there was evidence that this initial damage could prove permanent, as "the initial 2 year interval associated with Alternative 4 may prevent this habitat from reforming completely." Indeed, the Audubon Society's own public comment with respect to the Corps's Environmental Impact Statement recognized the damage that would be

caused by nourishment *every two years*. By contrast, the longer intervals between nourishment events under Alternative 5 could provide habitats in both the Shallotte Inlet and on the beach "more time to recover." Again, this was a consequence of the basic design of Alternative 4, not the product of the applied nourishment limit of 408,000 cubic yards per event.

Thus, when we take a "holistic view" of the Corps's process, rather than "flyspeck" any particular number that the Corps arrived at after a careful and informed analysis, we conclude that the Corps acted reasonably. *Webster v. U.S. Dep't of Agric.*, 685 F.3d 411, 421–22 (4th Cir. 2012) (quoting *Nat'l Audubon Soc'y v. Dep't of Navy*, 422 F.3d 174, 186 (4th Cir. 2005)).

* * *

In the course of issuing an Environmental Impact Statement and granting a permit under the CWA, the Corps collected a broad range of data drawn from the facts and objectives of the project at issue, historical statistics and records, computer analyses, and opinions of other specialized agencies, and it analyzed those data to make judgments ultimately based on its own special expertise under the numerous criteria imposed by NEPA and the CWA. In doing so, it was required to provide "an explanation of its decision that includes a rational connection between the facts found and the choice made." *Am. Whitewater*, 770 F.3d at 1115 (quoting *Ohio Valley*, 556 F.3d at 192). Based on the record in this case, we readily conclude that the Corps provided a reasonable explanation of its complex decisions that included "a rational connection between the facts found and

the choice[s] made." *Id*. Recognizing that our review is appropriately deferential, we affirm the Corps's actions. *See* 5 U.S.C. § 706.

The judgment of the district court is

AFFIRMED.