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June 7, 2010

Ms. Jennifer Harris
NC Turnpike Authority PBS&J
1578 Mail Service Center 5200
Raleigh, NC 27699-1578
(jennifer.harris@ncturnpike.org)

Re: Draft Environmental Impact Statement for Mid-Currituck Bridge

Dear Ms. Harris;

On behalf of the Audubon North Carolina, North Carolina Wildlife Federation, Environmental Defense Fund, and the Wilderness Society, the Southern Environmental Law Center submits the attached comments on the above-referenced Draft Environmental Impact Statement (DEIS), prepared by the North Carolina Turnpike Authority, a division of the North Carolina Department of Transportation, and the Federal Highway Administration (the "Transportation Agencies"). The DEIS analyzes the impacts of the proposed alternatives for the Mid-Currituck Bridge project ("the Toll Bridge").


In our comments, we identify a number of issues related to the proposed Toll Bridge that we believe require significantly greater disclosure and analysis to comply with the National Environmental Policy Act ("NEPA") and other federal and state laws prior to the potential permitting of this project. The key shortcomings of the DEIS include the following:

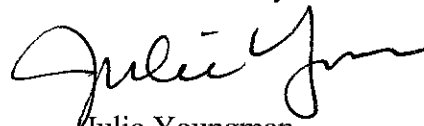
- The DEIS presents inflated estimates of traffic and population growth in the project area under the "no-build" scenario, skewing the analysis of the Toll Bridge's purpose and alternatives in favor of construction.
- The DEIS fails to analyze the Toll Bridge's secondary and cumulative impacts, claiming without basis that it would not significantly encourage development along the northern Outer Banks or cause any significant environmental impacts associated with that increased development.
- The DEIS fails to adequately support or explain its recommendation of the Toll Bridge alternative, a \$600 million investment to reduce travel time to a small strip of shifting, hurricane-prone barrier peninsula unsuitable for intensive development, especially in light of climate change.


- The DEIS does not acknowledge or evaluate how the Toll Bridge would contribute to nonpoint source runoff, affecting habitat for wintering waterfowl and essential primary and secondary nursery areas for various fish species.

The immense scale, cost, and impact of this project calls for an especially thorough review under NEPA. The DEIS, however, belies any notion that the Transportation Agencies undertook an objective evaluation, which might have favored a transportation investment at odds with the North Carolina Turnpike Authority's narrow charge under N.C. Gen. Stat. 136-176(b)(2): "construction of the Mid-Currituck Bridge." The numerous and significant shortcomings of the DEIS prevent meaningful review of the Project, its many far-reaching direct and secondary impacts, and potential less damaging alternatives. Given the magnitude of these deficiencies, we urge the Transportation Agencies to revise their analysis of alternatives and impacts according to the recommendations set forth herein and to issue a revised Draft Environmental Impact Statement for public review and comment.

Sincerely,


 J. David Farren
 Senior Attorney


 Julie Youngman
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 Thomas M. Gremillion
 Associate Attorney

cc: Tim Gestwicki, North Carolina Wildlife Federation
 Sam Pearsall, Environmental Defense Fund
 Brent Martin, The Wilderness Society
 John F. Sullivan, FHWA
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 Heinz J. Mueller, USEPA
 Steven Lund, USACE
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INTRODUCTION

The Mid-Currituck Bridge would span seven miles of wetlands and coastal sound to access the northernmost strip of North Carolina's Outer Banks, which measures less than a mile wide for most of its length. The Currituck Banks barrier peninsula, separated from North Carolina's mainland by marshes and the Currituck Sound, is part of a dynamic barrier island system. Ocean overwash, high shoreline erosion rates, inlet formation, and other impacts generally associated with barrier islands make the project area ill-suited for the large-scale infrastructure and intensive development that would result from construction of the Toll Bridge contemplated in the Draft Environmental Impact Statement ("DEIS"). At the same time, those natural processes are instrumental in creating nesting habitat, feeding grounds, and fish nurseries for the abundant wildlife found in some of the last remaining natural areas on the northern Outer Banks, including a State Natural Area, a State Estuarine Preserve, State Game Lands, and National Wildlife Refuge lands, all located just a few miles from the planned terminus of the Toll Bridge. On the mainland side of the Sound, the Toll Bridge would encroach upon the Maple Swamp Gordonia Forest, designated a Significant Natural Heritage Area.

Currituck County and state transportation officials first hatched their plans for a bridge across the Mid-Currituck Sound in the 1970s. In 1975, the state Board of Transportation adopted a formal resolution favoring the Project. Since then, the Project has been the subject of numerous studies, each of which have concluded that other transportation improvements would better suit the needs of area residents with less taxpayer dollars, and cause far less damage to the environment. In 1998, the first DEIS for this Project was issued, but it was never followed by a Final EIS. According to the transportation agencies, a "majority" of those who spoke up at public hearings or submitted written comments on the project "expressed opposition to a Mid-Currituck Bridge because of natural resource impacts, the belief that the project would not solve hurricane evacuation needs, and the expectation that the project would facilitate development on the Outer Banks." [P&N Doc 1-9]

Now, in the new, current DEIS, the Transportation Agencies have refashioned the Mid-Currituck Bridge as a toll bridge, which may cost as much as \$12 per crossing. But the potential of this project to generate toll revenue does not alter the basic calculus regarding whether it is feasibility and whether it belongs among the state's transportation priorities. Tolls would pay for only a fraction of the Bridge's cost. The project would require state "gap funding" appropriations over the next thirty years that are worth nearly \$300 million today. The state would also back several hundred million dollars of loans and "toll revenue bonds." This public funding and debt capacity could be put to better use devoting them to North Carolina's pressing transportation needs. For example, it could address neglected maintenance and repair needs in the vicinity of the project, including the replacement of the Bonner Bridge over Oregon Inlet. The continued promotion of the Mid-Currituck Toll Bridge reflects the peculiar status of the North Carolina Turnpike Authority, which continues to pursue an independent transportation agenda, out of step with emerging federal and state policies on infrastructure investment, energy, and environmental stewardship, despite the passage of a law last summer "transferring the functions and funds" of the agency to the North Carolina Department of Transportation.¹

¹ On July 17, 2009, Governor Perdue signed House Bill 1617, "an Act transferring the functions and funds of the North Carolina Turnpike Authority to the Department of Transportation to conserve expenditures and improve

The Mid-Currituck Bridge is an ill-conceived project with or without tolls, and with or without the limited involvement of a private sector partner. As the DEIS points out, this involvement is contingent upon the selection of a Toll Bridge alternative. The private partner consortium, led by the Spanish conglomerate Grupo ACS, is expected to contribute only \$80 million, approximately ten percent of the project's construction costs, leaving the bulk of the remainder to be borne by North Carolina taxpayers. For Grupo ACS's investment to pay off, moreover, during the summer high season nearly 20,000 cars per day would need to pass over the Bridge and through Corolla, what is now an unincorporated community of some 500 permanent residents and 30 public beach access parking spaces. These financial plans implicate massive new investments in real estate and infrastructure, which would be highly vulnerable to hurricanes, sea level rise, erosion, and other phenomena that will exact ever higher costs as climate change impacts worsen.

The rigor of the Transportation Agencies' evaluation of this project under NEPA should have been commensurate with its scale, cost, and regional importance. Instead, the Transportation Agencies have issued a DEIS that suffers from multiple inaccuracies, omissions and other shortcomings. The DEIS fails to account for induced population growth, advancing the false claim that building a bridge where none currently exists would have no effect on the total amount of traffic in the area. As a result, the DEIS mischaracterizes the Toll Bridge's ability to advance the stated objectives for the project: relieving congestion and expediting hurricane evacuation. It also fails to adequately assess the Toll Bridge's impact on wildlife, including various endangered species, on water quality, on fisheries, and on the overall quality of experience for visitors and residents along the Outer Banks. These shortcomings prevent the meaningful and informed evaluation of this project as required by NEPA. The Agencies should issue a new DEIS that fully addresses these issues and compares the project's benefits to a viable existing road upgrade alternative before proceeding to the Final EIS phase.

I. NEPA

The National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (NEPA), embodies a broad national commitment to protecting and promoting environmental quality. Robertson v. Methow Valley Citizens Council, 109 S. Ct. 1835, 1845 (1989). The preparation of an "environmental impact statement" or "EIS" satisfies the twin aims of NEPA: (1) to ensure that agency attention will be focused on the probable environmental consequences of the proposed action, and (2) to assure the public that the agency has considered environmental concerns in making its decision. North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533, 1540 (11th Cir. 1990). Most importantly, the EIS serves as a springboard for public comment and incorporates the critical views of other federal, state, and local agencies. *Id.*; Robertson, 490 U.S. at 349.

The adequacy of an EIS depends on whether the agency followed the procedure required by law in its preparation. North Buckhead, 903 F.2d at 1540. The preparer of an EIS "must go beyond mere assertions" and provide sufficient data and reasoning to enable a reader to evaluate the analysis and conclusions and to comment on the EIS. Silva v. Lynn, 482 F.2d 1282, 1287

Efficiency." Since the enactment of the law, however, the Turnpike Authority's management structure has remained essentially unchanged, and a separate board of directors continues to direct the Authority. Text of the bill is available at <http://www.ncleg.net/Sessions/2009/Bills/House/HTML/H1617v4.html>.

(1st Cir. 1973). An EIS requires the agency to take a “hard look” at environment impacts, and “an agency’s hard look should include neither researching in a cursory manner nor sweeping negative evidence under the rug.” Natl. Audubon Soc. v. Navy, 422 F.3d 174, 194 (4th Cir. N.C. 2005).

Equally important, an EIS provides the basis for a decision under Section 404(a) of the Clean Water Act, 33 U.S.C. § 1344(a), which authorizes the Corps of Engineers to issue permits for the discharge of dredged or fill materials into wetlands or other waters. The Corps must deny applications for section 404 permits if “[t]here is a practicable alternative to the proposed discharge that would have less adverse effect on the aquatic ecosystem, so long as such alternative does not have other significant adverse environmental consequences.” 33 C.F.R. § 320.4(a)(i).

A. Purpose and Need

1. Project Needs and Goals

The DEIS states that the “purpose” of the Toll Bridge is to address the following needs:

- The need to reduce congestion along US 158 and NC 12.
- The need to reduce travel times “between the Currituck County mainland and the Currituck County Outer Banks.”
- The need to reduce hurricane evacuation times from the areas along the Outer Banks currently accessible via US 158 and NC 12. (DEIS 1-3.)

As evidence of these needs, the DEIS cites projections of traffic congestion in 2035. The DEIS indicates that the worst congestion would occur “on US 158 east of the Wright Memorial Bridge and NC 12 in Southern Shores and parts of Duck.” (DEIS 1-4.) The DEIS describes how traffic delays (with the No-Build Alternative) are projected to affect a “representative trip from the Currituck County mainland to the Currituck County Outer Banks.” (DEIS 1-4.) It also states that hurricane evacuation times, defined as the time from when the first evacuee leaves until all evacuees have reached safety, from the northern Outer Banks are currently exceeding the state standard 18 hours, and will reach 36 hours by 2035 with the No-Build Alternative. (DEIS 1-5.)

2. Regulatory Framework

CEQ regulations require the Agencies to provide a statement specifying “the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” 40 CFR § 1502.13. As the defined purpose of a proposed action may greatly affect the feasibility of alternatives, an agency “may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action,” Citizens against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991). As another court explained, it is unreasonable for an agency “to narrow the objective of its action artificially and thereby circumvent the requirement that relevant alternatives be considered.” City of New York v. Dep’t

of Transp., 715 F.2d 732, 743 (2d Cir. 1983). Doing so would make the EIS a foreordained formality. Citizens Against Burlington, Inc., at 196. Instead, agencies must look hard at the factors relevant to the defined purpose. Once an agency has considered the relevant factors, it must define goals for its action that fall somewhere within the range of reasonable choices. Id.

3. Deficiencies in the Purpose and Needs Section

The DEIS's discussion of purpose and needs does not meet the requirements of NEPA. The only need that the Toll Bridge might actually address—reducing travel times “between the Currituck County mainland and the Currituck County Outer Banks”—is impermissibly narrow. By all accounts other than the current DEIS, including that of the previous 1998 DEIS, the Toll Bridge would exacerbate traffic congestion in the area and lengthen hurricane evacuation times.

The DEIS makes clear that the Toll Bridge would connect two parts of Currituck County that are currently accessible to one another only by traveling through part of Dare County. The DEIS does little to explain, however, how this connection between the two sides of Currituck County addresses any sort of significant need. In the 1998 DEIS for this project, the Transportation Agencies cited an objective to “provide more efficient public services to Currituck Outer Banks.” (DEIS 1-10.) Collaborating state and federal agencies criticized this characterization of the project purpose, pointing out, for example, that “Currituck and Dare Counties have already demonstrated cooperative arrangements on the provision of [public] services,” and that “based on continuing development in the Corolla area, improved access is not a critical need for development.”² The current DEIS omits any reference to public services on the Currituck County Outer Banks. Instead, it emphasizes travel delays during the summer high season to the area. But while the Toll Bridge would undoubtedly reduce travel time for those making the “representative trip” between “the approximate endpoints of a Mid-Currituck Bridge,”³ the DEIS gives little reason to believe that this benefit justifies the enormous economic and ecological costs of the Project.

Similarly, the traffic congestion projections cited in the DEIS fail to establish a compelling need for the Toll Bridge. Considering that most of the development along the Outer Banks is dedicated to summer vacation rentals, the reported congestion is unsurprising. More remarkable is the underlying assumption in the DEIS that traffic volume along NC 12 and US 158 will continue to grow, nearly doubling by 2035 and producing staggering delays during the summer weekend days. These projections are inconsistent with the Transportation Agencies' own studies, which note that traffic volumes along US 158 have “exhibited little growth in the most recent five year period” and that “[t]raffic levels on NC 12 between Southern Shores and Corolla appeared to be down,” possibly indicating that “congestion along this road has reached a saturation point and become a deterrent to traffic growth.”⁴

² Comments of Heinz J. Muller, US EPA (April 30, 1998).

³ Parsons Brinckerhoff, Statement of Purpose and Need, at 6 (October 2008), *available at* www.ncturnpike.org.

⁴ Wilbur Smith Associates, Preliminary Traffic and Revenue Report, at 2-5 (Jan. 2007) *available at* www.ncturnpike.org.

To the extent that traffic congestion represents a problem in the project area, the Toll Bridge would not help to solve it. The DEIS points out that on weekend days during the summer high season, "congestion occurs on NC 12 just south of Southern Shores and Duck and on US 158 east of the Wright Memorial Bridge." (DEIS 1-3.) Notably, travelers would not likely use the Toll Bridge to access these areas. Travelers using the Bridge would, however, add to the existing traffic along NC 12 in the Corolla area, and along US 158 and US 168 north of the proposed mainland terminus. The 1998 DEIS acknowledged this traffic growth effect. It conceded that "the future development allowed by the bridge would result in the congestion on NC 12 returning to or exceeding current levels by 2020."⁵ This prompted criticism, with EPA noting that "[s]trangely, this project is not designed to reduce congestion on the main roadways but is narrowly geared to address travel to the uppermost Outer Banks."⁶

The current DEIS attempts to blunt this line of criticism by denying that the Toll Bridge would, in fact, cause more vehicles to travel to the area. The DEIS references a 2035 Traffic Alternatives Report that depicts the same number of cars traveling along the US 158 mainland arterial directly north of the Toll Bridge under the future "Build" and "No Build" scenarios.⁷ In other words, the DEIS claims that over an hour of travel time savings would not persuade any additional drivers to visit the northern Outer Banks. Neither the DEIS nor the 2035 Traffic Alternatives Report explain this counterintuitive conclusion, which ignores an abundance of carefully documented empirical studies that link traffic levels to available road capacity. As one meta-analysis of over fifty traffic studies concludes: "There is no question that road improvements prompt traffic increases."⁸

In North Carolina, federal courts have recognized these traffic inducing effects of large highway infrastructure projects. In Sunset Beach, North Carolina, the Transportation Agencies claimed that replacing a one-lane, pontoon bridge with a high-level, fixed-span bridge would not cause any traffic increases or induce additional development. See Mullin v. Skinner, 756 F. Supp. 904 (E.D.N.C. 1990). The Federal District Court for the Eastern District of North Carolina rejected that claim, explaining that induced traffic growth follows from the "irrefutable reality that the easier it is to get somewhere, the more people will be inspired to do so." *Id.* at 917; see also Sierra Club v. United States DOT, 962 F. Supp. 1037, 1043 (D. Ill. 1997) (rejecting an EIS based on the "implausible assumption that the same level of transportation needs will exist whether or not the tollroad is constructed.") Compared to the situation in Sunset Beach, the Mid-Currituck Toll Bridge would make it even easier for travelers, particularly from points north of the project area, to access the North Carolina Outer Banks, because it would establish a new route of access altogether. The DEIS, however, falsely claims that the improvement would not inspire any new visitors to go there.

⁵ 1998 DEIS p. 2-59. Compare *id.* Table 2-16, p. 2-56 (53,000 vehicles per day estimated at US-158 near Coinjock under 2020 "No-Build" scenario) with *id.* Table 2-18, p.2-61 (58,600 vehicles per day under 2020 "Build" scenario at same location).

⁶ Comments of Heinz J. Muller, US EPA (April 30, 1998).

⁷ Parsons Brinckerhoff. 2035 Traffic Alternatives Report, at 13-14 (March 2009) available at www.ncturnpike.org.

⁸ Robert Cervero, "Induced Travel Demand: Research Design, Empirical Evidence, and Normative Policies," Journal of Planning Literature 17:3 (2002) at 17.

Finally, the DEIS points out that North Carolina General Statute § 136-102.7 establishes a "Hurricane Evacuation Standard" of 18 hours from the time of a hurricane warning, a standard that "was already exceeded at 27 hours in 2007 for evacuees leaving the Outer Banks via NC 168 and US 158." (DEIS 1-5.) This law does not establish a need for the Toll Bridge. If anything, the law—which explains that the standard shall "be used for any bridge or highway construction project" under NCDOT authority—augers against its construction. Although the DEIS claims that the Toll Bridge would reduce hurricane evacuation times, this claim is based on the assumption that the Toll Bridge would not cause any growth in travel to the Outer Banks. That assumption is not scientifically credible or legally defensible. In fact, as the US Army Corps of Engineers pointed out in its comments on the previous DEIS, the transportation agencies should have disclosed the impacts associated with "hurricane evacuation time increase" resulting from the Project.⁹

B. Consideration of Alternatives

1. The Proposed Alternatives

The DEIS describes five detailed study alternatives, one of which ("ER2") involves widening the Wright Memorial Bridge, US 158, and NC 12 and constructing an interchange between US 158 and NC 12 on the Outer Banks, but not building a bridge. The other four alternatives are bridge variations, two of which include one combination of road improvement and widening components and two of which include a different combination of road improvement and widening components. For each pair of bridge alternatives, there are also several choices of bridge approach and hurricane evacuation designs. The DEIS recommends one of two possible bridge alternatives, and makes no recommendation regarding the approach and hurricane evacuation design options presented in the DEIS for those alternatives. The DEIS explains that bus transit, ferry service, shifting rental times, and transportation system management alternatives were also considered, but eliminated from further consideration because they would make only "a minimal reduction in congestion and travel time." (DEIS 2-41.)

2. Regulatory Framework

NEPA directs agencies to prepare a "detailed statement" of alternatives to the proposed federal action. 42 U.S.C. § 4332(C)(iii). CEQ regulations require agencies to "[r]igorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14(a). An "informed and meaningful consideration of alternatives - including the no action alternative - is an integral part of the statutory scheme." Friends of Southeast's Future v. Morrison, 153 F.3d 1059, 1065 (9th Cir. 1998). The agency must "[d]evote substantial treatment to each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits." 40 C.F.R. § 1502.14(b). Only those alternatives that are deemed to be unreasonable can be eliminated from the study. 40 C.F.R. § 1502.14(a). Detailing all realistic possibilities forces the agency to consider the environmental effects of a project and to evaluate those against the effects of alternatives. Piedmont Heights Civic Club Inc. v. Moreland, 637 F.2d 430, 436 (5th Cir. 1981).

⁹ Comments of C.E. Shuford, US Army Corps of Engineers (May 12, 1998)(emphasis added).

The EIS must consider alternatives to the proposed action that may partially or completely meet the proposal's goal and it must evaluate their comparative merits. Natural Resources Defense Council v. Callaway, 524 F.2d 79, 93 (2d Cir. 1975). Considering alternatives that only partly meet the project goals allows the decision maker to consider whether meeting part of the goal with less environmental impact may be worth the tradeoff with a preferred alternative that has greater environmental impact. North Buckhead, 903 F.2d at 1542. The treatment of alternatives in an EIS must be judged against a "rule of reason" in order to permit a reasoned choice among the various options. Druid Hills Civic Ass'n v. Federal Highway Admin., 772 F.2d 700, 713 (11th Cir. 1985).

3. Deficiencies in the Analysis of Alternatives Section

Reflective of the Turnpike Authority's narrow focus, the DEIS devotes inadequate treatment to Toll Bridge alternatives. In a single sentence, the DEIS eliminates the ferry service alternative from consideration because, according to the document, ferries would be costly as well as ineffective, and "would require substantial dredging in the Currituck Sound." (DEIS 2-41.) Another technical report, the Alternatives Screening Report, provides the analysis of these options. Notably, the Report only considers conventional ferry service, and on a very large scale. It fails to address comments made in response to the previous DEIS requesting that the agencies investigate whether very shallow draft ferries could meet the project purposes without extensive damage to submerged aquatic vegetation (SAV) and other resources in the Sound. A system of modern, high-speed, shallow-draft ferries and water taxis could serve high volumes of passengers even in fairly shallow waters. The San Juan Islands, Channel Islands National Park, and Cumberland Island National Seashore are examples of popular tourist destinations reached by ferry. Likewise, Ocracoke and Bald Head Islands, Cape Lookout National Seashore, and Hammocks Beach State Park have all been connected to the mainland only by ferry boats for their entire histories, and yet remain among the most popular tourist destinations on the North Carolina coast. In light of the many advantages of ferries and the many examples of successful ferry systems, the cursory analysis in the DEIS and rejection of ferries as an alternative for this relatively lightly developed area is unjustified.

Similarly, the DEIS barely mentions a bus transit service alternative. Agency comments on the previous 1998 DEIS noted that "[p]ublic bus transit would benefit travel on NC 12 and it should have some appeal and feasibility because of the narrow, linear nature of the Outer Banks and seasonal tourist travelers."¹⁰ The current DEIS, however, refers again to the Alternatives Screening Report for further explanation of why bus transit would reap only "minimal" benefits. (DEIS 2-41.) That report does not define a bus transit alternative, explaining that "specific design and operational characteristics of the Bus Transit Alternative were not developed pending a finding on whether or not the potential benefits of transit made it an option worth pursuing in further detail."¹¹ According to the report, the study team found that transit was not an option worth pursuing further based on a hypothetical 16.8 mile trip. As the report explains: "It was assumed that if the bus under uncongested conditions takes longer to make this trip than an automobile under worst-case congested conditions (No-Build Alternative), then it could be

¹⁰ Comments of Heinz J. Muller, US EPA (April 30, 1998).

¹¹ Parsons Brinckerhoff, Alternatives Screening Report, at 38 (October 2009), available at www.ncturnpike.org.

concluded that transit would offer no benefit.”¹² Because the time needed for passengers to “walk to the bus,” “wait for the bus,” “ride the bus with the bus stopping every one-half mile for one minute to take on passengers, and walk to their destination,” would be greater than the driving time under congested conditions, the report concludes that “it is likely that bus transit would be little used if provided.”¹³ Notably, such an evaluation would support the elimination of much, if not most, existing bus transit across the country. The Report does not support its transit analysis with references to other authorities, or explain why its trip comparison is an appropriate criteria for determining the demand for transit or its usefulness for mitigating congestion along the Outer Banks.

Further, the DEIS fails to provide an adequate explanation of why the improve existing “ER2” and “No-Build” alternatives do not meet the project purpose and need in comparison with the Bridge alternatives. This deficiency relates back to the unrealistic traffic projections for the project area. The DEIS does not expressly present these projections, however, but instead presents a chart with metrics such as “congested vehicle miles traveled,” and “hurricane evacuation benefit.” In support of its conclusion that the Bridge alternatives best achieve these objectives, the DEIS refers to both the Alternatives Screening Report and the 2035 Traffic Alternatives Report. The DEIS does not adequately disclose that its analysis relies on the assumption that the same number of cars would travel through the project area to the Outer Banks, regardless of whether a bridge is built, existing roads are expanded, or no new road capacity is added at all. In fact, these different scenarios would result in significant differences in traffic volume that must factor into any meaningful analysis of alternatives. Until this is done, the upgrade alternative cannot be eliminated.

C. Environmental Impacts

An EIS must contain a full and fair discussion of significant environmental impacts and the impacts must be discussed “in proportion to their significance.” Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 200 (D.C. Cir. 1991). Here, the DEIS has improperly given short shrift to the impacts to natural resources that would be caused by construction of the Toll Bridge alternative. The DEIS portrays the area’s natural resources as hopelessly compromised by existing development, and suggests, without support, that the Toll Bridge will not significantly compound existing stresses on water quality, wildlife habitat, fisheries, and waterfowl populations. In fact, development restrictions and other carefully targeted policies can help to reduce these stresses on the environment, just as targeted improvements to existing roadways can help to reduce traffic congestion during the peak tourist season and hurricane evacuations. The Toll Bridge, however, would fundamentally alter the ecological and socioeconomic character of the area. The DEIS gives only a superficial analysis of the Bridge’s direct environmental impacts, and perhaps most egregiously, refuses to even acknowledge the significant indirect and cumulative impacts that this project would cause by spurring intensive development along the shifting sands of the North Carolina Outer Banks. A new DEIS should address these issues, as discussed below.

¹² Id. at 39.

¹³ Id. at 39.

1. Indirect Effects

a. Regulatory Background

NEPA and CEQ regulations require the Agencies to consider the “indirect effects” of a proposed action. Dep’t of Trans. v. Public Citizen, 541 U.S. 752, 763-64 (2004). Indirect effects are defined as those effects that are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b).

Of particular relevance to this project, indirect effects include induced growth. 40 C.F.R. § 1508.8(b); Mullin, 756 F. Supp. at 917. Other induced growth effects include patterns “of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.” 40 C.F.R. § 1508.8(b). Consideration of induced growth and related issues “furthers the National Environmental Protection Act’s information and public awareness goals.” City of Carmel-by-the-Sea v. United States DOT, 123 F.3d 1142, 1162 (9th Cir. 1997); see also National Wildlife Federation v. Coleman, 529 F.2d 359, 374 (5th Cir. 1976) (indirect impacts of proposed highway included development that would be encouraged around the highway interchanges); City of Davis v. Coleman, 521 F.2d 661, 675 (9th Cir. 1975) (“growth-inducing effects of the . . . Interchange project are its reason d’etre, and with growth will come growth’s problems: increased population, increased traffic, increased pollution.”); Sierra Club, 962 F. Supp. at 1043 (finding that use of the same socioeconomic forecast for the build and no-build alternatives “creates a self-fulfilling prophecy that makes a reasoned analysis of how different alternatives satisfy future needs impossible.”).

b. The DEIS’s Consideration of Induced Growth

The 1998 DEIS for this Project acknowledged that the Bridge would induce a significant increase in development along the Currituck Outer Banks and the rest of the project area. For example, it estimated that “the bridge would allow an estimated 2,473 additional homes along Currituck Outer Banks.”¹⁴ Nevertheless, the 1998 DEIS gave little consideration to the indirect and cumulative impacts caused by the increased development, concluding that the impacts “would be similar for the Bridge and No-Build Alternatives.”¹⁵ Comments from almost every federal and state government agency involved in the project indicated that this conclusion was wrong and that the analysis was inadequate to satisfy the National Environmental Policy Act:

“This project cannot be thoroughly evaluated without a comprehensive discussion of secondary and cumulative impacts.”¹⁶

“[H]urricane evacuation time increase and increased traffic congestion should be included in the secondary and cumulative impacts section. Specifically, the new bridge will promote greater development in a high hazard, storm prone area.”¹⁷

¹⁴ 1998 DEIS at 4-48, Table 4-19.

¹⁵ *Id.* at 4-60.

¹⁶ Comments of Cyndi Bell, NCDENR Division of Water Quality (April 21, 1998).

¹⁷ Comments of C.E. Shuford, US Army Corps of Engineers (May 12, 1998).

The DEIS "appears to base levels of development on the opinions of local realtors."¹⁸

"[The DEIS] states, 'The potential for negative impacts to water quality would be similar for the Bridge and No-Build Alternatives.' . . . we disagree with the above statement. . . ."¹⁹

"The basic issue that must be addressed is whether it is appropriate for NCDOT/FHWA to consider any alternative that would support levels of Outer Banks development incompatible with long-term environmental quality."²⁰

"The Division continues to be concerned with the secondary and cumulative impacts associated with the bridge alternatives."²¹

"[T]he 'No-Build' alternative would not promote the adverse secondary and cumulative impacts (water and sewer projects and increased traffic on NC 12, which is already at capacity according to NCDOT traffic counts) associated with providing quicker access to the Currituck County Outer Banks."²²

"The DEIS accurately notes that the project is not likely to directly affect these [endangered] species since no construction is proposed for beach areas. However, the influence of an increased human presence, both as day visitors and seasonal residents, would extend for many miles both north and south of the eastern bridge terminus."²³

"[I]t should be noted that providing quicker access to Currituck Outer Banks would not only accelerate development but would also promote increased traffic and the potential for water quality degradation resulting from the direct discharge of stormwater from the bridge deck into Currituck Sound. . . . The community's ability to deal effectively with any increased need for additional water use, wastewater treatment and other infrastructures is a very important part of the success of this proposal and should be considered throughout the planning stages of this project."²⁴

Twelve years have passed since these comments were submitted on the first DEIS for this project. The new DEIS provides virtually no specific information regarding why any of the above concerns should have lessened. Indeed, the current DEIS now presents less analysis of indirect impacts, making only conclusory statements such as that "[f]orecast development would be the predominant contributor to cumulative impacts, irrespective of whether a detailed study alternative is implemented," and "the extent of development on the Outer Banks by 2035 would be the same with or without the bridge." (DEIS xx, Table S-1). The DEIS fails to support this

¹⁸ Comments of Lynn W. Mathis, NCDENR Division of Coastal Management (April 23, 1998).

¹⁹ Comments of Andreas Mager, Jr., National Marine Fisheries Service (April 16, 1998).

²⁰ Comments of Heinz J. Muller, US EPA (April 30, 1998).

²¹ Comments of Sare E. Winslow, NCDENR Division of Marine Fisheries (March 9, 1998).

²² Comments of Franklin T. McBride, NC Wildlife Resources Commission (April 27, 1998).

²³ Comments of Nicholas L. Graf, US Fish and Wildlife Service (May 28, 1998).

²⁴ Comments of Melba McGee, Environmental Review Coordinator, NCDENR (April 29, 1998).

assertion or to present an adequate analysis of the significant secondary and cumulative effects that clearly would result from building the Toll Bridge.

The DEIS's brief analysis of induced development is internally inconsistent, seemingly claiming that the transportation improvements described in the DEIS would both facilitate development and have no effect on development. On the one hand, it maintains that "lack of transportation improvements and associated growing congestion could constrain development under the No-Build Alternative." But at the same, the DEIS claims that "transportation improvements have little effect on the demand for and rate of development," and in any event, the project area "is already largely developed." (DEIS 3-89.) The DEIS does not clarify the meaning of "developed." Recent estimates, however, put the total number of vacation rental properties along the Outer Banks north of the Wright Memorial Bridge at approximately 4,500. So if the DEIS is correct in its prediction that the area is already "largely developed," the construction cost of the Toll Bridge comes to well over \$100,000 per vacation rental property serviced.²⁵

The various sources cited by the DEIS indicate that the project area is not intensively developed. According to the Currituck County Land Use Plan (hereinafter "2006 Land Use Plan"), "the northern Outer Banks area contained a total 3,100 residential lots," of which "436 (15%) were developed,"²⁶ leaving significant room for development to be encouraged. The DEIS cites population and growth estimates from the 2006 Land Use Plan as support for its conclusion that the Toll Bridge "would not notably contribute to cumulative impacts." (DEIS 3-96.) But the 2006 Land Use Plan predicts that "the Mid-County Bridge will have a huge influence on development patterns throughout much of Currituck County," and that "pressure for additional development in Corolla and especially Carova will increase dramatically with improved access to these two areas."²⁷ Similarly, the DEIS reports that a "Vision Plan" for the area does "not indicate a net increase in overall business or residential development on the Outer Banks related to the detailed study alternatives." (DEIS 3-91.) In fact, the "Vision Plan" makes the vague assertion that "Corolla and Carova are fairly well developed already," but it further warns that "[c]urrently, there does not exist proper infrastructure to support the quantity and type of businesses the Mid-Currituck Sound Bridge will draw—access to central water and sewer, garbage collection, effective stormwater management, and the Internet" These infrastructure needs, like the Bridge's other indirect impacts, similarly receive less consideration in the current DEIS than in the 1998 version of the document.

The DEIS claims that the bridge would not affect the level of development on the Currituck Outer Banks in part because existing area land use plans would limit any such growth. According to the DEIS, "current development regulation and past trends associated with implementation of these plans are indicative of the local jurisdictions' commitments to implement these plans as they stand." (DEIS 3-89.) The Transportation Agencies made a similar claim in the Mullin case to defend their conclusion that a "new bridge will not spur significant

²⁵ See N.C. Turnpike Authority, the Mid-Currituck Development Group, and Arup. Mid-Currituck Sound Bridge Phase II Research Study, at 6 (Oct. 12, 2009) ("

²⁶ Currituck County. 2006 Land Use Plan. (Cert. by Coastal Resources Commn. Sept. 25, 2008) *available at*: <http://www.co.currituck.nc.us/documents-plans.cfm>

²⁷ 2006 Land Use Plan at 5-6.

increased development at Sunset Beach.” Mullin, 756 F. Supp. at 921. In no uncertain terms, the Federal District Court for the Eastern District of North Carolina rejected the Agencies’ suggestion that land use regulations would remain static, calling it “so utterly devoid of common sense and inconsistent with NEPA that it cannot be taken seriously.” Id. The court went on to conclude that it “did not need plaintiffs’ experts to tell it that zoning changes inevitably follow development pressures. To believe otherwise is to ignore reality.” Id. The DEIS nevertheless repeats this approach, failing to take the requisite “hard look” at the environmental impacts of growth induced by the bridge.

The DEIS indicates that the Transportation Agencies have a responsibility to “minimize impacts associated with the US 158/Mid-Currituck Bridge Interchange itself,” but otherwise the “significant cumulative effects . . . associated with continued development . . . would be the responsibility of Currituck County.” (DEIS 3-97.) This is a derogation of the Agencies’ analysis and disclosure duties under NEPA. The Agencies should issue a new DEIS that evaluates all of the likely indirect effects of the Toll Bridge versus other alternatives, and also identifies and discusses available mitigation strategies.

2. Significant Impacts on Natural Resources

Laboring under the assumption that the Toll Bridge would not cause any additional development along the Outer Banks, nor even attract any additional day visitors, the DEIS completely ignores some of the most significant impacts associated with the Toll Bridge. As one court has explained, for an agency “to ignore the indirect effects that result from its actions would be to . . . wear blinders that Congress has not chosen to impose.” Riverside Irr. Dist. v. Andrews, 758 F.2d 508, 512 (10th Cir. 1985). Here, the DEIS fails to adequately address and evaluate the likely substantial impacts, including the indirect effects of induced traffic and development, on the following significant natural resources:

a. Impacts to Waterfowl

The DEIS does not adequately address adverse impacts on waterfowl in Currituck Sound, given the area’s significance as waterfowl habitat, especially for large numbers of wintering and migrating birds. Currently, the DEIS focuses more on the history of waterfowl use of the area, rather than on future effects of the Toll Bridge on waterfowl. On page 3-39, the DEIS reports reductions in waterfowl numbers as if it were a reason to give less consideration to the needs of waterfowl, instead of acknowledging that development impacts have contributed to much of the previous decreases and the development stimulated by the Toll Bridge would further contribute to the decline of waterfowl populations in the area. The proposed bridge is likely to directly reduce or remove habitat, including foraging areas, for waterfowl through the loss of wetlands and the birds’ food sources found there. It would also pollute the waters used by waterfowl with runoff from the bridge and roads. The increased traffic, with its accompanying increased activity, noise, and potential for direct collisions between birds and vehicles, could disturb waterfowl, fragmenting and reducing the area’s utility as resting and wintering habitat, and eventually causing sensitive species to abandon the area altogether. Among the birds that will be affected are waterfowl (including ducks, geese, swans, etc.), waterbirds (including ospreys and various species of terns), shorebirds (including plovers and sandpipers), marsh birds (including

rails and bitterns), wading birds (including herons, egrets, and ibis), and the occasional bald eagle.

These effects should be acknowledged and examined. The DEIS should also consider construction methods and technologies to discourage birds from perching and nesting on or around the bridge itself, in order to reduce the likelihood of collisions.

b. Fisheries

The DEIS fails to adequately support its conclusion that the Toll Bridge “would not have a substantial long-term adverse impact” on designated fisheries and submerged aquatic vegetation (SAV) habitat in the area. (DEIS 3-50.) In fact, it presents information that is inconsistent with this conclusion. For example, the Essential Fish Habitat Technical Report notes that the bridge would “introduce a new source of pollution (via bridge runoff)” that may justify various mitigation measures as the “amount of runoff and associated impacts to water quality are dependent upon the method implemented to manage bridge runoff.”²⁸ At the same time, the report indicates that it assumes no mitigation measures would be in place to treat runoff, yet without further discussion of the amount of runoff and associated impacts to water quality that would occur under that scenario, it concludes that no substantial long-term effects would result. With respect to secondary and cumulative impacts of the Bridge on fish habitat, the DEIS and its supporting documents again fail to acknowledge factors, such as increased storm water run-off, increased erosion, increased wetlands fill for commercial and residential structures, and overfishing, related to increased access to the area, nor is there any discussion of possible mitigation strategies.

c. Currituck National Wildlife Refuge, Natural Heritage Areas and other environmentally significant areas

The DEIS includes inadequate analysis of impacts on numerous barrier island areas and ecosystems in the vicinity of the Project that are environmentally significant. Thousands of acres of pristine coastal habitat are maintained for the public’s enjoyment by numerous groups, including the federal and state governments, the National Audubon Society, the Nature Conservancy, and other non-profits. The areas include Currituck National Wildlife Refuge, Pine Island Audubon Sanctuary, Nature Conservancy land, Currituck Banks National Estuarine Reserve, and at least ten other Natural Heritage Areas. They provide habitat for the federally protected sea turtles and other species listed on p. 3-53 of the DEIS, as well as the many bird species listed above in section C(3)(a), wild horses, deer, fox, raccoons, wild hogs, etc. The remoteness and abundance of wilderness are clearly an important part of the reason people live in and visit the area. Besides the many nature preserves and natural areas listed above, other tourist attractions also center around outdoor activities like kayaking, hiking wilderness trails, visiting the Outer Banks Center for Wildlife Education, viewing the local wild horse herd, bird watching, etc.

²⁸ CZR Incorporated. Essential Fish Habitat Technical Report (November 2009) at 24, available at www.ncturnpike.org

Construction of a Toll Bridge would adversely impact these areas and attractions, and reduce not only the quality of the experience for visitors but also the economic vitality of the nature-related tourism industry, through increased traffic, encroaching development in or near the natural areas, and the accompanying noise, water and air pollution, wildlife habitat fragmentation and degradation, etc. For those areas north of the end of NC 12, the impacts would also include either increased traffic on the fragile beach or the construction of a paved road access (for instance, an extension of NC 12) through the pristine natural areas. Depending on the tide and the state of the beach, many vehicles per day drive on the beachfront section of the National Wildlife Refuge, already degrading the beach and disrupting any wildlife attempting to nest, forage, or rest there. Additional driving on the Refuge and beach areas would further degrade those resources.

These impacts should be acknowledged and examined in more detail. Currently, the DEIS acknowledges the existence of some areas, but focuses primarily on the Natural Heritage Areas in the immediate project area and barely assesses the effects on them at all. Table 3-5 purports to contain an analysis of "Permanent Impacts to Biotic Communities," but groups communities in large categories and presents the information in a cursory manner with little underlying data. In so doing, the DEIS fails to enable a reader to evaluate the analysis and conclusions and to comment on it, in violation of NEPA.

d. Wildlife Habitat In Maple Swamp

The DEIS's analysis of impacts on ecologically significant areas on the mainland side of the Sound is also inadequate. Most notably, the large area known as Maple Swamp and its unique Gordonia forest would be bisected by any of the options that involve construction of a Toll Bridge, either by construction of a road on fill or by bridging it. Although the forest has been degraded already by logging and clear-cutting, this fact is not clearly acknowledged in the DEIS. This past degradation is not justification for downplaying the Toll Bridge's impacts on the area, but rather a reason for increased concern and protective measures. Among other issues, the recent clear-cutting will cause more severe flooding in the area of the planned bridge terminus.

Further degradation of the forest and of wildlife habitat – through fragmentation, runoff pollution, etc. – are likely significant effects of the project. The DEIS discusses briefly a plan for providing wildlife passage under a road through pipes and culverts, but does not explain, for instance, how these would be useful to wildlife when they are filled with water. In general, the DEIS provides scant analysis of these effects, and any proffered mitigation, that is insufficient to pass muster under NEPA.

e. Air Quality

The DEIS dismisses air quality concerns, particularly regarding mobile source air toxics, without sufficient support. The DEIS reasons that the Toll Bridge would actually improve air quality because it would reduce vehicle miles traveled and congestion. As discussed above, however, the traffic projections for this project are not credible. If past experience and peer-reviewed traffic studies are any indication, the Toll Bridge would generate higher traffic volumes and congestion would meet or exceed current levels within a few years. The added capacity of the Toll Bridge, however, would mean that the traffic jams involve more cars, and more sources

of mobile source air toxics, as well as carbon monoxide and other pollutants which tend to accumulate in areas with large concentrations of traffic, creating "hot spots" of contamination. A new DEIS should consider these air quality effects, based on a realistic analysis of future traffic with the Bridge. In particular, it should examine air quality impacts in the immediate vicinity of the planned interchange of US 158 and the Toll Bridge.

II. WATER QUALITY

A. Regulatory Background

The Clean Water Act (CWA) prohibits the discharge of any pollutant by any person into waters of the United States unless such discharge is made in compliance with various CWA sections, including section 404. 33 U.S.C. §§ 1251 *et seq.* Section 404 establishes a permit program to regulate the discharge of fill material into waters of the US and is overseen by the Corps of Engineers. Central to the permit decision process is whether the proposed discharge activities will comply with the CWA § 404(b)(1) guidelines (40 C.F.R. § part 230). If it does not, a permit will be denied. 33 C.F.R. § 320.4(a)(1).

The guidelines provide that discharges will not be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem. 40 C.F.R. § 230.10(a). An alternative is "practicable" if it is available and capable of being done after taking into account cost, existing technology, and logistics in light of overall project purposes. 40 C.F.R. § 230.10(a)(2). The section 404(b)(1) alternatives analysis overlaps significantly with the NEPA alternatives analysis. Under the section 404(b)(1) guidelines, it will be presumed that there are practicable alternatives to discharge activity that occurs in but is not dependent upon wetlands or waters of the U.S. 40 C.F.R. § 230.10(a)(3); *see also Buttrely v. United States*, 690 F.2d 1170, 1180 (5th Cir. 1982).

B. The DEIS's Consideration of Water Quality Impacts

The DEIS estimates that construction of the recommended Toll Bridge alternative would require filling between forty to fifty-two acres of wetlands. The DEIS also recognizes that run-off from the bridge platform would impact water quality in the Currituck Sound, although it fails to adequately quantify and analyze these impacts. These impacts on wetlands require a Section 404 permit from the U.S. Army Corps of Engineers. Due to the deficient alternatives analysis, as discussed above, the DEIS provides an insufficient basis to conclude that, "in light of overall project purposes," the Toll Bridge qualifies as the least environmentally damaging practicable alternative. 40 C.F.R. § 230.10(a)(2).

The DEIS also fails to adequately disclose and consider water quality impacts. According to the DEIS, water quality in the project area already "is undergoing substantial degradation because of the area's increasing population, changes in agricultural practices, and urbanization and industrialization of the region." (DEIS 3-28.) The DEIS indicates that these phenomena will continue, irrespective of whether the Bridge provides a new point of access to the Outer Banks. "Impacts to salinity, water supply and wastewater treatment should not result from any of the detailed study alternatives," according to the DEIS. (DEIS 3-29.) The DEIS fails

to support this claim, and indeed, mischaracterizes the project's likely effect on water quality, ignoring altogether secondary and cumulative effects on water quality.

The DEIS intimates that water quality in the project area has declined to a point where any additional contaminants introduced as a result of the Bridge would lack an independent significance. But a recent decline in the water quality of Currituck Sound and the rest of the Albemarle-Pamlico estuarine system demands greater, not less, consideration in the DEIS of how this project would contribute to water pollution. By exacerbating existing stresses to the system, the Bridge's impacts may have a greater effect on overall water quality than if they occurred in isolation. Moreover, the DEIS exaggerates the extent of the existing degradation, shifting the frame of reference from the project area ("closed to harvesting shellfish"), to waters "within 1.0 mile downstream of the project area" (not classified as "High Quality Waters"), to the area "crossed by the detailed study alternatives" (not designated as an "Anadromous Fish Spawning Area"). (DEIS 3-28.) In reality, while existing development in the project area has affected water quality, the Currituck Sound and the waters feeding into it continue to serve important ecological functions, supporting fisheries and wildlife habitat, which in turn support important tourism and recreational interests. A new DEIS should adequately address how the bridge could impact these interests, and identify appropriate mitigation measures.

In order to adequately address water quality impacts, the DEIS must include a rigorous analysis of secondary and cumulative impacts. This should include consideration of the increased storm water run-off caused by development in the area, and specific abatement measures to control storm water run-off, as well as the costs associated with those measures. A new DEIS should also address sewage and water treatment issues, particularly along the Outer Banks. According to the 2006 Land Use Plan, over 95% of residents rely on "individual on-site wastewater systems," i.e. septic tanks, even though "soils with severe septic system limitations dominate the County."²⁹ According to the plan, "failing septic systems" are a problem, with significant numbers of households drawing their potable water from individual wells, which are susceptible to cross-contamination. Individual wells are the only source of water in the Carova area. Water treatment facilities serve other parts of the project area, such as Corolla, but demand already meets the available capacity. A new DEIS should discuss the economic and ecological costs of providing water and sewage service to new development facilitated by the Bridge.

III. THE COASTAL BARRIER RESOURCES ACT

First passed in 1982 and subsequently strengthened in 1990, the Coastal Barrier Resources Act (CBRA) is intended to "minimize the loss of human life, wasteful expenditure of Federal revenues and the damage to fish, wildlife, and other natural resources associated with the coastal barriers . . . by restricting future Federal expenditures and financial assistance which have the effect of encouraging development of coastal barriers." 16 USCS § 3501(5)(b). The Act establishes the John H. Chafee Coastal Barrier Resources System, which designates specific areas as undeveloped coastal barriers. Both the lands and adjacent wetlands above and below the terminus of the Mid-Currituck Bridge are listed as units in the Barrier Resources System. Roughly ten miles separates Unit NC-01, which encompasses Pine Island to the north of Duck, and Unit L01P, which begins at the end of NC 12 north of Corolla. According to the Act, "no

²⁹ 2006 Land Use Plan at 5-5.

new expenditures or new financial assistance may be made available under authority of any Federal law for any purpose within the System, including . . . the construction or purchase of any road, . . . or bridge or causeway to, any System unit.” 16 USCS § 3504(a)(2).

The Mid-Currituck Bridge is inconsistent with the CBRA. While the Bridge would not directly enter into areas designated under the Act, it would support development in those areas. Federal courts have read the Act to mean that “[f]urther federal assistance, with certain limited exceptions, for development within or access to those areas is banned.” Cape May Greene, Inc. v. Warren, 698 F.2d 179, 189 (3d Cir. 1983) (emphasis added). The exceptions carved out in the Act apply to “maintenance” and “replacement” of “essential links,” in the transportation network, such as the Bonner Bridge. In contrast, this project would provide a new link to areas that, according to the U.S. Fish and Wildlife Service, “were made ineligible for direct or indirect Federal financial assistance that might support development.” The DEIS relegates its discussion of the Act, and the disclosure of much of the project study area’s status, to section 5.7.5 of a “Community Impact Assessment Technical Report.” That report acknowledges that the listed areas include “lands in private ownership,” but fails to explain how this project would not promote development that is inconsistent with the CBRA.

IV. COASTAL ZONE MANAGEMENT ACT

Congress enacted the Coastal Zone Management Act to help coastal states preserve, protect, and develop the nation’s coastal areas. 16 U.S.C. § 1452. North Carolina’s Coastal Area Management Act (“CAMA”), N.C. Gen. Stat. §§ 113A-100 et seq., furthers those objectives.

As the implementing regulations explain:

(c) The 1974 Legislature found that “the coastal area, and in particular the estuaries, are among the most biologically productive regions of this state and of the nation,” but in recent years the area “has been subjected to increasing pressures which are the result of the often conflicting needs of society expanding in industrial development, in population, and in the recreational aspirations of its citizens.”

(d) “Unless these pressures are controlled by coordinated management,” the act states, “the very features of the coast which make it economically, aesthetically, and ecologically rich will be destroyed.”

15A N.C. Admin Code 07H.0102(c)-(d). The regulations go on to explain that, “[t]o prevent this destruction,” the act calls for the identification of “types of areas – water as well as land – in which uncontrolled or incompatible development might result in irreversible damage,” with the goal being to “ensure the compatibility of development with the continued productivity and value of certain critical land and water areas.” 15A N.C. Admin Code 07H.0102(e).

Under CAMA, coastal counties are required to adopt land use plans, and the Coastal Resources Commission may designate “Areas of Environmental Concern,” or “AECs,” where unpermitted development is prohibited. N.C. Gen. Stat. §§ 113A-110, 113. Local area land use plans, once approved, become part of the North Carolina Coastal Management Plan that is overseen by the North Carolina Division of Coastal Management.

In AECs, development requires permits and the Division of Coastal Management “shall deny an application for a permit upon finding . . . that the proposed development would contribute to cumulative effects that would be inconsistent” with the objectives of the Act, such as protecting against “significant adverse effect on the conservation of public and private water supplies,” and “significant adverse effect on wildlife or fresh water, estuarine or marine fisheries.” *Id.* at § § 113A-120(a)(10); 113-229(e). Under federal regulations, before making a final decision on an action such as the proposed project, the federal agency must assess whether it is consistent with area land use plans and notify the North Carolina Division of Coastal Management (“NCDCM”). 15 C.F.R. §§ 930.36, 930.41.

As the DEIS explains, a “CAMA major permit would be required for all of the detailed study alternatives.” (DEIS 3-49.) According to the DEIS and its supporting documents, failure to build the bridge would be inconsistent with area land use plans. But while some area land use plans cite construction of the Mid-Currituck Bridge as an express transportation objective, the Toll Bridge would also impact AECs directly and by subsequent development activities. If a development project violates general or specific use standards for an AEC, a permit must be denied, even if local land use plans include the project.

The DEIS relies on the statistic that AECs “encompass less than 3 percent of the land covered by CAMA in North Carolina’s 20 coastal counties”³⁰ to justify the short shrift it gives impacts on them. AECs, however, are prevalent in the vicinity of this project. Under CAMA, there are four categories of AECs: the estuarine and ocean system (15A N. C. Admin. Code 07H.0200), the ocean hazard system (15A N. C. Admin. Code 07H.0300), public water supplies (15A N. C. Admin. Code 07H.0400), and natural and cultural resource areas (15A N. C. Admin. Code 07H.0500). The 2006 Land Use Plan recognizes “two categories of AECs . . . the estuarine system AECs and ocean hazard system AECs.”³¹ In its CAMA section, the DEIS acknowledges that AECs in only the first category exist in the immediate Project area, that is, the “estuarine and ocean system” subcategories of coastal wetlands, estuarine waters, coastal shorelines, and public trust coastal waters and submerged lands, but the DEIS does not even show where these areas are located on the various maps presented in its various reports. (Compare DEIS at 3-48 to 3-49 with 2006 Land Use Plan, Map 3.1.)

The DEIS fails to adequately evaluate even the direct impacts of the Toll Bridge on estuarine AECs it acknowledges. In particular, CAMA requires that “uses” of estuarine waters, such as the dredging and fill associated with the Toll Bridge, be “consistent with the management objectives of this rule.” 15A N.C. Admin. Code 07H .0206(d). The management objective of the estuarine waters rule is “[t]o conserve and manage the important features of estuarine waters so as to safeguard and perpetuate their biological, social, aesthetic, and economic values.” 15A NCAC 07H .0206(c)-(d). The DEIS fails to address the apparent inconsistency between the Toll Bridge and this objective, or explain the plan for complying with those standards.

³⁰ Parsons Brinckerhoff. Community Impact Assessment Technical Report (Nov. 2009), at 5-33 *available at* www.ncturnpike.org

³¹ 2006 Land Use Plan, p.3-3.

Further, the DEIS declines to mention that land use plans designate “virtually Currituck County’s entire oceanfront coastline,” as “ocean erodible area” (the other category of AEC listed in the 2006 Land Use Plan) that is “subject to longterm erosion and significant shoreline changes.”³² The DEIS claims that “the greatest impact to Coastal Area Management Act (CAMA) resources . . . would be associated with shading by a Mid-Currituck Bridge,” but this claim is not adequately supported. As discussed above, the secondary effects of this project would extend far beyond these limited direct impacts. The 2006 Land Use Plan identifies far more AECS and other sensitive areas that would be affected. For instance, Map 3.5 of the Plan shows the many environmentally fragile areas in close vicinity to the Toll Bridge, including anadromous fish spawning areas and significant Natural Heritage Areas, while Map 3.6 indicates that much of the county land qualifies as environmental hazard Class III, where “the impact of development may cause serious damage to the function of natural systems.”³³ Copies of these maps are enclosed. Ignoring or downplaying the impacts to these areas is inconsistent with the goals of CAMA.

In addition to falling short of the requirements under NEPA, the DEIS does not adequately consider how these impacts may undermine area land use plans for the purposes of state and federal coastal management laws. In fact, as described elsewhere in these comments, the direct and indirect impacts on these areas, including areas designated as Ocean Eroding Areas, would be significant. For instance, just as a new bridge would surely enable access and increase development north of Corolla and Carova, it would increase the number of vehicles driving on the beach to access the houses (both existing and new) that are located north of the end of NC 12, which would increase erosion on the fragile barrier island shoreline. Already, “the Swan Beach area midway between Carova Beach and Corolla has higher erosion rate factors ranging from 4.5 to 8.5 feet/year,” according to area land use plans.³⁴ Although the General Use Standards for Ocean Hazard Areas do not specifically ban driving on the beach, development in these areas must comply with management objectives that include “preserving the natural ecological conditions of the barrier dune and beach systems.” 15A N.C. Admin. Code 07H.0303, .0306(f). In this and other ways, building a bridge would encourage development and traffic that is inconsistent with the goals of CAMA. The DEIS fails to acknowledge these apparent planning conflicts, or to explain why the Toll Bridge should nevertheless qualify for a CAMA permit.

V. CLIMATE CHANGE

The DEIS acknowledges that “potential accelerated sea level rise resulting from climate change” will likely affect the project area in a significant way. (DEIS 3-64) But the DEIS analysis of climate change related impacts is incomplete and misleading. Climate change will make the North Carolina Outer Banks less hospitable to human development and an even more inappropriate situs for massive infrastructure like the Toll Bridge. EPA’s recent finding that greenhouse gases “endanger both the public health and the public welfare of current and future generations” was based in part on the impacts of climate change on coastal areas. The agency

³² Id.

³³ Id. at 3-8.

³⁴ Id. at 3-16.

cites “evidence that Atlantic hurricanes have already become more intense,” as well as “increased risk of storm surge and flooding in coastal areas from sea level rise and more intense storms,” and “adverse impacts from sea level rise such as land loss due to inundation, erosion, wetland submergence, and habitat loss.” 74 Fed. Reg. 66496, 66498 (December 15, 2009). The cost of rebuilding, relocating, and fortifying existing development to cope with these impacts is already projected to be monumental. By encouraging additional development in the areas most vulnerable to climate change, the Toll Bridge would add to these liabilities.

As one joint federal agency analysis recognizes, “choices made today about the location and design of transportation infrastructure can have a large impact on the feasibility and cost of accommodating rising sea level in the future.”³⁵ Yet while the DEIS and its technical report acknowledge that climate change will cause significant sea level rise in the project area, including permanent inundation of much of the project area, the Transportation Agencies arrive at the absurd conclusion that “a Mid-Currituck Bridge would be a useful asset in reducing the impact of sea level rise on the project area’s road system.” This is because, unlike much of the rest of the road system, it would remain above water, and therefore provide “the only way off the Currituck County Outer Banks.” (DEIS 1-7.) This logic is flawed. By stimulating investment in road capacity and other infrastructure that would eventually remain permanently under water, the Toll Bridge would worsen the impacts of climate change. A new DEIS should include an objective analysis of the costs associated with these impacts, including the threat of hurricanes to intensive development in the area, increased bridge maintenance costs, reduced availability of fresh water and developable land on the Outer Banks, and other factors that would all seem to militate against the construction of a \$600 million bridge to the area.

CONCLUSION

We request that the Transportation Agencies revise their analysis of alternatives and impacts according to the recommendations set forth herein and issue a revised Draft Environmental Impact Statement for public review and comment.

³⁵ James G. Titus, USEPA. “Preparing for Sea-Level Rise” in Coastal Sensitivity to Sea-Level Rise: A Focus on the Mid-Atlantic Region. (2009), at 150, available at <http://www.climatescience.gov/Library/sap/sap4-1/default.php>