Appendix A

NEPA/404 Concurrence Forms, Agency Correspondence, and Meeting Summaries

A. NEPA/404 Concurrence Forms, Agency Correspondence, and Meeting Summaries

CONCURRENCE POINT A AND 2A SIGNED FORM FOR PHASE IIB..... A-2

CORRESPONDENCE WITH PEA ISLAND NATIONAL WILDLIFE REFUGE A-3

MEETING SUMMARY FOR JULY 25, 2013 MITIGATION MEETING..... A-11

Section 404/NEPA Merger Project Team Agreement
Concurrence Point No. 2: Alternatives to be Studied in Detail and Concurrence Point 2A: Bridging Decisions and Alignment

Project No./TIP No./Name/Description:

Federal Project Number: BRS-2358(15)
WBS No.: 32635
TIP Project Number: **B-2500B**
Description: **Replacement of the Herbert C. Bonner Bridge (Bridge No. 11) over Oregon Inlet in Dare County (Phase II of the Parallel Bridge Corridor with NC 12 Transportation Management Plan)**

The Project's Merger Team has concurred on this date of October 29, 2012 that the following alternatives will be evaluated further for the Rodanthe breach component of Phase II of the subject project:

- Bridge on New Location
- Bridge within Existing NC 12 Easement

USACE	William J. Bilkerson	NCDOT	Elizabeth A. Smyre
USEPA	Abstain	USFWS	Abstain
NCDWQ		NCWRC	Abstain
SHPO	Renee Gledhill-Earley	FHWA	Clarence W. Coleman Jr.
NMFS	Abstain FR	NCDMF	Abstain KH
NPS	Abstain TB	NCDCM	Doug V Huggett
USFWS-PINWR	Abstain		

Page 1 of 1

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

July 11, 2013

Mike Bryant
U.S. Fish & Wildlife Service
Pea Island National Wildlife Refuge
P.O. Box 1969
Manteo, North Carolina 27954

Subject: Minor Modification of NC 12 Easement for Phase IIb of Bonner Bridge Replacement Project (TIP No. B-2500B), Dare County, North Carolina

Dear Mr. Bryant:

In November 2012, the Merger Team for the subject project selected two bridge alternatives to be carried forward for detailed study (see Figure 1). One of these alternatives, called the Rodanthe- Bridge on New Location alternative, involves the construction of a bridge extending west of the existing NC 12 roadway into Pamlico Sound. Construction of this alternative would require new easement within the Pea Island National Wildlife Refuge (Refuge) between the existing NC 12 easement and the Refuge's western boundary. This letter is to request your views on whether the new easement needed for the Rodanthe- Bridge on New Location alternative could likely be determined a minor modification of the existing NC 12 easement. We also request your views on the scale and nature of any mitigation that may be related to such a determination.

NCDOT is currently preparing an Environmental Assessment (EA) in order to identify changes to the project area since the 2010 Record of Decision and to assess the impacts of the two bridge alternatives. While FHWA and NCDOT will likely recommend a preferred alternative in the EA, the Merger Team will make the final decision on the project's Least Environmentally Damaging Practicable Alternative (LEDPA) after the EA is issued and associated public involvement is completed. If the Rodanthe- Bridge on New Location alternative is selected for construction, then NCDOT will complete the final design for this alternative and will submit a formal request to your agency for a minor modification of the easement.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1548 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000
FAX: 919-250-4224
WEBSITE:
HTTPS://CONNECT.NCDOT.GOV/RESOURCES/ENVIRONMENTAL/PAGES/DEFAULT.ASPX

LOCATION:
CENTURY CENTER, BUILDING A
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Proposed New Easement

The Rodanthe- Bridge on New Location alternative will require approximately 2.87 acres of new easement west of existing NC 12 at the proposed bridge's northern terminus (see Figure 2). The location and design of the northern terminus was developed in consultation with your staff, and NCDOT is proposing an alignment that minimizes impacts to the Refuge to the greatest extent possible while conforming to the department's design standards. Based on NCDOT surveys of the project corridor, the proposed new easement contains the following biotic communities:

Upland	Wetland
Maritime grassland	Salt shrub/grassland
Maritime shrub/grassland	Salt grassland
	CAMA marsh
	Maritime shrub/grassland
	Maritime shrub thicket

NCDOT is in the process of calculating the acreage of impact for each biotic community for the project; this information will be included in the upcoming EA.

In addition, the proposed new easement would cross the southeastern corner of the former wetland mitigation site that was constructed by NCDOT in the mid-1990's. The alternative is designed so that NC 12 would be entirely on a structure once it leaves the existing NC 12 easement, such that any impacts to these areas would be limited to the placement of bridge piles and shading from the bridge deck. The northern roadway approach and associated fill would be within the existing NC 12 easement.

Mitigation

It is understood that mitigation for the use of new Refuge land would be required if the U.S. Fish & Wildlife Service (USFWS) approved the Rodanthe- Bridge on New Location alternative as a minor modification to the existing easement. Based on discussions during a meeting with you on June 25, 2013, NCDOT proposes the following conceptual mitigation measures:

Return of Existing NC 12 Easement: Based on the current preliminary design of the alternative, approximately 18.68 acres of the existing NC 12 easement between the northern bridge terminus and the Refuge's southern border with Rodanthe would no longer be needed for NC 12 and could be returned to the USFWS. Once the new bridge is open to traffic, NCDOT would restore the area by removing pavement and sandbags and conducting any additional grading work or planting of native species as directed by your office.

Nourishment of Estuarine Shoreline: NCDOT would work with the USFWS and the appropriate permitting agencies to develop a plan to place compatible material along the estuarine shoreline within the Refuge north of Rodanthe. The intent of this nourishment would be to create additional wetland areas on the west side of the Refuge and aiding the island's natural overwash process. Only material determined to be compatible by the USFWS would be placed along the estuarine shoreline, and all work would be done at the direction of USFWS staff. Jetting spoil material from bridge construction at both the Pea Island inlet and Rodanthe sites, or beach sand from the proposed temporary beach nourishment project, could be used for this purpose. NCDOT will need to work with the USFWS in order to determine how the jetting spoil material and the beach sand could be transported and placed along the estuarine shoreline in a manner that minimizes further impacts to the Refuge. NCDOT would also need approval from the appropriate federal and state permitting agencies. In order to determine the feasibility of this option, NCDOT has scheduled a meeting with the appropriate permitting agencies for Thursday, July 25, 2013 at 1:00 pm at the NCDOT Century Center Complex in Raleigh. Your office has been included in the invitation to this meeting.

Improvements to Former NCDOT Mitigation Site: In the event that nourishment of the estuarine shoreline is determined not to be a feasible mitigation option, NCDOT would work with the USFWS on appropriate updates to the former NCDOT wetland mitigation site on the west side of NC 12; these updates could include site grading and/or planting of additional native species. Though the site is within the Refuge, any work on this site would need to be coordinated with the U.S. Army Corps of Engineers, the N.C. Division of Coastal Management, and other appropriate agencies, as this site was developed as wetland mitigation for a previous NCDOT project.

If the Rodanthe- Bridge on New Location alternative is selected by the Merger Team as the alternative for this phase of the project, NCDOT will submit a detailed request for a minor modification of the existing easement once the NEPA process is completed. This request will include a metes and bounds description of both the proposed new easement and the easement to be returned, a summary of the impacts to each of the biotic communities within the proposed new easement, and a detailed mitigation proposal based on the ideas proposed in this letter. While NCDOT realizes that the USFWS cannot make an official determination prior to the full application, we request your input on the likelihood that this alternative could be deemed a minor modification of the existing NC 12 easement. We would also appreciate your input on the appropriate scale and nature of any associated mitigation, including the measures discussed in this letter. We ask that you respond to this request by Wednesday, July 31, 2013, so that we may consider your response in the development of the EA for this project.

Thank you for your attention to this request. If you have any questions about this request, please contact Ms. Beth Smyre, Project Planning Engineer, at (919)707-6043 or bsmyre@ncdot.gov.

Sincerely,

Gregory J. Thorpe, Manager
Project Development and Environmental Analysis Unit

GJT/eas

Attachments

cc: (electronic copy) w/ attachments:
Victor Barbour, NCDOT-Technical Services
Terry Gibson, NCDOT- Division of Highways
Deborah Barbour, NCDOT- Preconstruction
Jerry Jennings, NCDOT- Division 1
Rob Hanson, NCDOT- PDEA
Phil Harris, NCDOT- PDEA
Clarence Coleman, FHWA

PHASE IIb DETAILED STUDY ALTERNATIVES

Figure 1

NEW PERMANENT EASEMENT WITH THE BRIDGE ON NEW LOCATION ALTERNATIVE

Figure 2

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Coastal North Carolina National Wildlife Refuges Complex
Post Office Box 1969
Manteo, North Carolina 27954
(252) 473-1131 473-1668 (fax)

July 22, 2013

Gregory J. Thorpe, Manager
North Carolina Department of Transportation
Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Subject: Request for a response on suggested Minor Modification of NC 12 Easement for Phase IIb of Bonner Bridge Replacement Project (TIP No. B-2500B), Dare County, North Carolina

Dear Mr. Thorpe:

In your July 11, 2013 letter to me concerning the need for a new easement for the Rodanthe-Bridge on New Location alternative for Phase IIb of the Bonner Bridge Replacement Project (TIP No. B-2500B) in Dare County North Carolina on Pea Island National Wildlife Refuge you asked for my views on determining whether the alternative is a minor modification of the existing NC 12 easement and on the scale and nature of any mitigation that may be related to such a determination. You requested comments by July 31, 2013.

The proposed new easement requires 2.87 acres of easement west of existing NC 12 at the proposed bridge's northern terminus. The location and design was developed in consultation with my staff and it appears that the designed alignment minimizes impacts to the Refuge to the greatest extent possible while conforming to NCDOT's design standards. It could likely be determined a minor modification of the existing NC 12 easement if adequate mitigation can achieve no net loss of habitat quantity and quality. It appears to be necessary for safety reasons.

As you note, we met with Ms. Beth Smyre, NCDOT Project Planning Engineer, on June 25, 2013 at which time we discussed three conceptual mitigation measures. I appreciate that NCDOT would restore the approximately 18.68 acres of existing NC 12 easement that would no longer be needed for NC 12 once the new bridge is open for traffic. You describe the restoration as removing pavement and sandbags and conducting any additional grading work or planting of native species as directed by my office. This form of restoration on these acres would be appropriate mitigation. I also appreciate that NCDOT is exploring the nourishment of estuarine shoreline on the Refuge and my staff will call in to the July 25, 2013 at 1:00 pm scheduled meeting on this subject with the appropriate permitting agencies. This form of nourishment would be appropriate mitigation especially for wetland impacts. I'm less inclined to think that improvements to the former NCDOT wetland mitigation site on the west side of NC 12 would be appropriate. The Refuge is narrowing in width from loss on both shores. Blowing sand, and, possibly, over-wash sand are trapped in the wetland mitigation site changing it over time to an upland site, thus losing the wetland mitigation values. Unimpeded, the natural coastal process would bypass sand to the sound side shore and grow sound side shore line as the ocean shore line erodes – adding wetland acres to the Refuge. I would need more information to convince me that reworking an NC 12 relocation, former wetland mitigation site would lead to a sustainable, no net loss of quantity and quality of habitat.

In my judgment we need the sound side shore line to grow west to mitigate for loss on the ocean shore line. Thank you for your attention to my response. If you have questions about this response, please contact either Dennis Stewart, Refuge Wildlife Biologist (ext 231), Scott Lanier, Deputy Refuge Manager (ext 223), or me at (252) 473-1131.

Sincerely,

Michael R. Bryant, Project Leader

Cc: (electronic copy):
Victor Barbour, NCDOT Technical Services
Jerry Jennings, NCDOT – Division 1
Beth Smyre, Project Planning Engineer
Pete Jerome, FWS, Refuge Supervisor
David Viker, FWS, Regional Chief of Refuges – Southeast Region

Bonner Bridge - Phase IIb minor mod & mitigation letter to NCDOT 7-22-13.docx

Note: Attachments referenced in these minutes already included in this EA are not included with this summary.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

MEMO TO: July 25, 2013 B-2500B Meeting Attendees

FROM: Beth Smyre, PE

DATE: July 31, 2013

SUBJECT: Meeting Summary- July 25, 2013 Meeting for Phase IIb of the Bonner Bridge-NC 12 Transportation Management Plan (TIP No. B-2500B)

July 25, 2013 Mitigation Meeting: Discussion and Conclusions

A meeting was held at 1:00 pm on July 25 in the Roadway Design Conference Room at NCDOT Century Center for the subject project. The purpose of the meeting was to discuss potential mitigation options for the use of Pea Island National Wildlife Refuge land associated with the Bridge on New Location Alternative associated with Phase IIb of the Bonner Bridge Replacement Project (B-2500B). The following people attended:

Bill Biddlecome	USACE – Washington Field Office
Tracey Wheeler	USACE – Washington Field Office
David Wainwright	NC Division of Water Quality
Doug Huggett	NC Division of Coastal Management
Cathy Brittingham	NC Division of Coastal Management
Ron Lucas	FHWA
Kevin Hart (*via teleconference*)	NC Division of Marine Fisheries
Fritz Rohde (*via teleconference*)	National Marine Fisheries Service
Dennis Stewart (*via teleconference*)	USFWS – PINWR
Scott Lanier (*via teleconference*)	USFWS – PINWR
Thayer Broili (*via teleconference*)	NPS
Steve Thompson (*via teleconference*)	NPS
Beth Smyre	NCDOT – PDEA
Brian Yamamoto	NCDOT – PDEA
Bob Capehart	NCDOT – Division 1
Pablo Hernandez	NCDOT – Division 1
Leilani Paugh	NCDOT – NES
Kathy Herring	NCDOT – NES
Morgan Weatherford	NCDOT – NES
Chris Rivenbark	NCDOT – NES

MAILING ADDRESS:
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FAX: 919-250-4224

WEBSITE: WWW.NCDOT.ORG/DOH/PRECONSTRUCT/PE/

LOCATION:
CENTURY CENTER, BUILDING A
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Michael Valiquette	NCDOT- Geotechnical Engineering Unit
John Page	Parsons Brinckerhoff
Elise Bielen	Parsons Brinckerhoff

Beth Smyre opened the meeting by updating the group on the current progress of Phase IIb; she explained that the Phase IIb Environmental Assessment (EA) is currently underway and that two detailed study alternatives are under consideration: the Bridge within Existing NC 12 Easement Alternative and the Bridge on New Location Alternative (Figure 1). Beth stated that NCDOT is working towards a decision on which of these alternatives will be presented in the EA as the Preferred Alternative, and that each alternative has issues to be considered. Beth mentioned that the Bridge within Existing NC 12 Easement Alternative carries construction concerns, while the Bridge on New Location Alternative goes outside of the existing NC 12 easement in the Pea Island National Wildlife Refuge (Refuge). The USFWS-Refuge must determine whether the new easement can be considered a minor modification of the existing NC 12 easement. If the new easement is considered a minor modification, then NCDOT must provide the appropriate mitigation for the use of Refuge land. The USFWS-Refuge has indicated in a letter (attached) that the Bridge on New Location Alternative likely could be considered a minor modification of the existing easement. The remainder of the meeting focused primarily on the appropriate mitigation options for the use of Refuge lands.

Beth indicated that NCDOT and USFWS have agreed that the section of existing NC 12 easement that is bypassed by the Bridge on New Location Alternative would be restored and returned to the Refuge. The new easement is estimated to require approximately 2.87 acres of new Refuge lands; approximately 18.68 acres of the existing NC 12 easement would be returned to the Refuge. Restoration of the existing easement will serve as a major portion of the mitigation required for the new easement.

Beth informed the group that in previous mitigation discussions with the Refuge, an idea also had been proposed to “nourish” the estuarine (soundside) shoreline in order to build up and support the natural migration of Hatteras Island. Beth presented the current estimated fill, pile, and SAV impacts of the Bridge on New Location Alternative (see attached table) and noted that the wetland fill impacts shown in the table occur entirely at the southern terminus of the new bridge, outside of the Refuge. NC 12 would be entirely on a bridge within the new easement; therefore, any wetland impacts in the new easement would be due to the placement of bridge piles. Beth requested that the group discuss and give opinions on the possibility of soundside nourishment as mitigation for impacts to the refuge.

The group discussed the following agency concerns with the nourishment proposal:

- The National Marine Fisheries Service is concerned about impacts to SAV habitat and is against filling good SAV habitat with a nourishment program. Based on previous NCDOT surveys, the SAV habitat in near the Refuge terminus is patchy, and most of the SAV in the area is at the southern end of the Bridge on New Location Alternative. The water bottom in the area near the Refuge terminus is hard-packed sand, which is

not good SAV habitat. Staff at the National Marine Fisheries Service Beaufort lab may have expertise that could assist with this proposal.

- The USFWS-Refuge explained to the group that the islands are eroding from both the ocean and the soundside, and that the Refuge is running out of options for mitigating the impacts of NC 12. The nourishment idea was proposed as an innovative, experimental way to see if building up the land mass on the western shore could be encouraged. Offsite mitigation efforts do not help with the Refuge's issue of eroding land mass.

- If the CAMA impacts remain as shown in the draft impact table (.03 acres of CAMA marsh impacted by piles), then DCM would not require compensatory mitigation for that type of impact.

- Several NCDOT staff expressed concerns that a nourishment program of this nature would be costly and risky, considering the unknown benefits and potential impacts. Because the wetland impacts are relatively small in this area, it was suggested that the wetland acreage lost as a result of Phase IIb could be rolled into the planned mitigation for Phase I of the project.

- The USACE agreed that SAV habitat should not be filled for the sake of a soundside nourishment program, but that it could be done if the area is hard-packed and not good SAV habitat. The USACE questioned what, from a jurisdictional wetlands standpoint, is driving this discussion, considering the small number of wetlands impacts and the low level of mitigation required. There are two issues at hand: mitigation for use of the Refuge and mitigation for wetlands. The USACE noted that a permit would not be required for the pile impacts in Refuge wetlands, but only the fill impacts in Rodanthe.

There was some discussion of using fill from dredging at the emergency ferry terminal in Rodanthe for a potential soundside nourishment program. The use of jetting spoils associated with B-2500B bridge construction or ocean sand gathered during the planned short-term nourishment program at the Rodanthe 'S' Curves Hot Spot was also discussed.

In summary, the group felt that the soundside nourishment program could be considered as an option for disposal of jetting spoils, but only after further coordination with the appropriate agencies. However, there may not be enough of a benefit to consider it as a mitigation measure. The nourishment program idea does not necessarily need to be tied into the Phase IIb project, and the group agreed to put the proposal aside for now and focus instead on wetlands mitigation. Dennis Stewart urged NCDOT to think outside the box on means that might be used in the context of the Phase IIb project to facilitate the accretion on the sound side of Hatteras Island.

Note: NCDOT staff conducted an SAV survey of the Bridge on New Location Alternative alignment on July 30, 2013. The updated design of the alternative involved shifting the bridge west of its previously proposed location, farther into potential SAV habitat. Preliminary results of the survey indicate more SAV present within the corridor, with patchy to thick

coverage (greater than 60% coverage, on average) noted throughout the alignment. NCDOT will conduct additional surveys of the corridor, and the results of the surveys will be discussed in the upcoming B-2500B EA.

If anyone has any additions or corrections to this summary, please contact John Page at PB at (919) 836-4076 or by e-mail at pagej@pbworld.com.

Attachments

Rodanthe- Bridge on New Location Alternative

New Easement Needed	Easement to be Returned
2.87 acres	18.68 acres

Fill Impacts	**Acres**
Wetland maritime grassland	1.29
Wetland maritime shrub/grassland	0.11
CAMA Wetlands	0
Total	**1.40**
Pile Impacts	
Wetland maritime shrub thicket	0.04
Wetland maritime shrub/grassland	0.00
Wetland salt grassland	0.01
Wetland salt shrub/grassland	0.00
CAMA marsh	0.03
Total	**.08**
Open Water Shading SAV Impact*	**8.56**
Open Water Pile SAV Impact*	**1.76**

*Total open water impact multiplied by 0.63

DRAFT

Appendix B

Public Involvement Materials and Correspondence

B. Public Involvement Materials and Correspondence

NOVEMBER 2011 NEWSLETTER B-2

DECEMBER 2011 AND JANUARY 2012 PUBLIC WORKSHOP HANDOUT..... B-3

DECEMBER 2011 AND JANUARY 2012 PUBLIC WORKSHOP DISPLAY BOARDS B-12

DECEMBER 2011 AND JANUARY 2012 PUBLIC WORKSHOP PRESENTATION SLIDE SHOW B-15

DECEMBER 2011 AND JANUARY 2012 PUBLIC SCOPING COMMENTS (ALPHABETICALLY BY LAST NAME) B-24

SOUTHERN ENVIRONMENTAL LAW CENTER COMMENT LETTER B-79

FEBRUARY 2013 NEWSLETTER..... B-92

Issue No. 6 November 2011

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

Bonner Bridge Update

TIP Project No. B-2500 Dare County, North Carolina

NCDOT STARTS PHASE II OF BONNER BRIDGE REPLACEMENT PROJECT

Hurricane Irene hit the North Carolina coast on Aug. 27 and breached NC 12 in two locations – northern Rodanthe and within the Pea Island National Wildlife Refuge. The North Carolina Department of Transportation (NCDOT) has completed temporary repairs at the two breach sites and reopened NC 12 to traffic on Oct. 10. With traffic restored to the area, NCDOT has started work on long-term solutions for these two sites, which are considered Phase II of the Bonner Bridge Replacement Project. Before any decisions are made on long-term fixes, NCDOT wants to hear what the citizens think about the design options under consideration.

PUBLIC WORKSHOPS SCHEDULED

Public workshops are scheduled for Dec. 5 in Manteo and Dec. 6 in Rodanthe. These workshops will provide the public with an opportunity to learn more about the design options under consideration for each breach site. **The same information will be available at both workshops.**

The workshops will be informal, with the public welcome to drop in any time between 4 p.m. and 7 p.m. to view displays of the design options. Study team members will be available to explain them and answer any questions. The public is urged to share their ideas, thoughts, and suggestions with study team members.

If you cannot attend a workshop, you may write the study team or call the toll-free project information line with your comments or questions. See the second page of this newsletter for the names and numbers of the study team contacts.

NCDOT will provide auxiliary aids and services under the Americans with Disabilities Act for disabled persons who wish to participate in these workshops. Anyone requiring special services should contact the study team.

Bulletin Board

BONNER BRIDGE CITIZENS INFORMATIONAL WORKSHOPS

December 5, 2011
4:00 – 7:00 PM
MANTEO
Dare County
Administration Building
954 Marshall Collins Drive
Manteo, NC

December 6, 2011
4:00 – 7:00 PM
RODANTHE
Rodanthe-Waves-Salvo
Community Center
23186 Myrna Peters Road
Rodanthe, NC

LONG-TERM OPTIONS UNDER CONSIDERATION FOR BOTH BREACH SITES

The design options studied as part of the Bonner Bridge Replacement Project represent the range of what could be built in future phases along NC 12 between Oregon Inlet and Rodanthe. Using this information, NCDOT has established several possible options for fixing the two breaches for the long term.

For the Pea Island breach, these options include:

- Beach renourishment;
- Building a bridge within the existing NC 12 easement; and
- Building a bridge or road on a new location to the west of the existing road.

For the Rodanthe breach, these options include:

- Beach renourishment;
- Building a bridge within the existing NC 12; and
- Building a bridge or road on a new location to the west of the existing road, possibly extending into Pamlico Sound.

Continued on next page

Long-Term Options Under Consideration for Both Breach Sites (continued from page 1)

After analyzing the changes to existing conditions in the project area as a result of Hurricane Irene, NCDOT will re-evaluate the impacts of these design options to determine the best long-term solutions for both breach sites. Comments received from state and federal environmental resource and regulatory agencies, as well as from the public, will also help guide the development of the Phase II designs.

BONNER BRIDGE REPLACEMENT STATUS

In the December 2010 Record of Decision (ROD) for the Bonner Bridge Replacement Project, NCDOT agreed to construct a new bridge over Oregon Inlet that is parallel to, and just west of, the current Bonner Bridge as Phase I of the project. The new bridge over Oregon Inlet is currently in the design phase, with construction scheduled to begin in January 2013. The new bridge is set to open to traffic in spring 2015.

For more information about the damage to NC 12 from Hurricane Irene and NCDOT's efforts to temporarily fix it, visit *www.ncdot.org/travel/nc12recovery*, follow our NC 12 Twitter feed at *http://twitter.com/NCDOT_NC12*, or go to our Repairing NC 12 blog at *http://nc12repairs.blogspot.com/*. You may also visit the Bonner Bridge Replacement Project web page at *www.ncdot.org/projects/bonnerbridgerepairs*.

Feel Free to Contact the Study Team

If you have any questions or wish to be added to our newsletter mailing list, please call **Bobby Norburn** or **John Page** on our **Toll-Free Project Information Line, 1-866-803-0529**. You may also write the study team at:

Ms. Beth Smyre
NC Department of Transportation
Project Development and
Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548
bsmyre@ncdot.gov

-- or --

Mr. Bobby Norburn
Parsons Brinckerhoff
434 Fayetteville Street
Suite 1500
Raleigh, NC 27601
norburn@pbworld.com

North Carolina Department of Transportation
Project Development and Environmental Analysis Unit
Attention: Beth Smyre
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

Bonner Bridge Public Workshops

TIP Project No. B-2500 Dare County, North Carolina

WELCOME to the Bonner Bridge – Phase II Public Workshops

Monday, December 5, 2011

4:00 p.m. to 7:00 p.m.
Dare County Administration Building
954 Marshall Collins Drive, Manteo

Tuesday, December 6, 2011

4:00 p.m. to 7:00 p.m.
Rodanthe-Waves-Salvo Community Center
23186 Myrna Peters Road, Rodanthe

Thursday, January 5, 2012

5:00 p.m. to 7:00 p.m.
Ocracoke Community Center
1009 Irvin Garrish Highway, Ocracoke

500 copies of this handout were reproduced at a cost of $2.53 per copy

PURPOSE OF PUBLIC WORKSHOP

Today's workshop is an important step in the North Carolina Department of Transportation's (NCDOT) procedure for making you, the public, a part of the project development process. The purpose of the workshop is to obtain public input on Phase II of the Bonner Bridge Replacement project. NCDOT is holding three workshops, but the same information will be available at all of the workshops.

Hurricane Irene hit the North Carolina coast on August 27, 2011 and breached NC 12 in two locations – northern Rodanthe and within the Pea Island National Wildlife Refuge. NCDOT completed temporary repairs at the two breach sites and reopened NC 12 to traffic on October 10, 2011. With traffic restored to the area, NCDOT has started work on long-term solutions for these two sites, which combined are considered Phase II of the Bonner Bridge Replacement Project. However, before any decisions are made on long-term fixes, NCDOT wants to hear what you think about the design options under consideration.

Today's workshop is intended to provide you with an opportunity to learn more about the design options under consideration for each breach site. The workshop will be informal, with the public welcome to drop in at any time during the scheduled hours to view displays of the design options. Study team members will be available to explain the design options and answer any questions. You are urged to share your ideas, thoughts, and suggestions with study team members at today's workshop. You may also make comments or ask questions by filling out the comment sheet attached to this handout and leaving it in the comment box, mailing it by January 20, 2012 to the study team at one of the addresses shown below, or calling the toll-free project information line (1-866-803-0529).

Ms. Beth Smyre
NCDOT – Project Development
and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548
E-mail: bsmyre@ncdot.gov

Mr. Bobby Norburn
Parsons Brinckerhoff
434 Fayetteville Street
Suite 1500
Raleigh, NC 27601
E-mail: norburn@pbworld.com

After the comment period ends on January 20, 2012, all comments will be reviewed by the NCDOT Bonner Bridge project team. The information you provide will help NCDOT develop the project by including input from all stakeholders prior to project decisions being made. NCDOT considers a number of factors, including the public's comments, in making decisions.

PROJECT DESCRIPTION

NCDOT proposes to construct a bridge to replace the Herbert C. Bonner Bridge (Bonner Bridge) in Dare County, demolish and remove existing Bonner Bridge, and improve NC 12 between the community of Rodanthe and Oregon Inlet.

The Federal Highway Administration (FHWA) and NCDOT issued the decision document for the Bonner Bridge Replacement Project, which is called a Record of Decision (ROD), on December 20, 2010. It selected the Parallel Bridge Corridor with NC 12 Transportation Management Plan as the alternative for the project. This alternative includes:

- Construction of a new parallel bridge ("short bridge") across Oregon Inlet as soon as possible (Phase I of the project); and
- The implementation of a coastal monitoring program on Hatteras Island between Oregon Inlet and Rodanthe to determine when and what to build for future phases of the project.

As a result of the damage caused by Hurricane Irene, Phase II of the project will develop long-term solutions for the two sections of NC 12 breached during the storm. The coastal monitoring program will continue during the planning and implementation of Phase II to determine the areas that later phases of the project should address.

The Bonner Bridge Replacement Project study area, along with the location of Phases I and II of the project, is shown on Figure 1 on the next page.

SUMMARY OF HURRICANE IRENE REPAIRS

NCDOT completed temporary repairs to the damage caused by Hurricane Irene and reopened NC 12 to traffic on October 10 – just seven weeks after the storm hit. Six miles south of Oregon Inlet within the Pea Island National Wildlife Refuge, crews installed a temporary metal bridge to span the largest breach on the Refuge, while filling in the three smaller breaches with sand. The bridge is a two-lane Mabey Universal Bridge manufactured with a modular design that allowed it to be assembled quickly. Although the bridge is a temporary solution and will require frequent maintenance, its strength and durability will allow it to remain in place for many years to keep traffic flowing.

In Rodanthe, crews filled in the breach with sand and used sandbags to stabilize sections of the roadway. The dunes on the east side of the roadway that were damaged were repaired.

Figure 1

WHAT ARE THE ALTERNATIVES UNDER CONSIDERATION?

Under the Parallel Bridge Corridor with NC 12 Transportation Management Plan, the options that were studied for the section of NC 12 between Oregon Inlet and Rodanthe may be used in future sections of the project. These options were presented to the public as part of the Parallel Bridge Corridor at public hearings in November 2005, March 2007, and July 2010. Those options were called:

- Nourishment Alternative – NC 12 would remain in its current location, and beach nourishment (combined with dune enhancement) would be used to maintain an adequate protective beach and dune system. Nourishment would occur in four locations, likely repeated at four-year intervals.
- Road North/Bridge South Alternative – NC 12 would be relocated as a road west of the forecasted 2060 high erosion shoreline in the north end of the Refuge. At the south end of the Refuge and in Rodanthe, NC 12 would be placed on a bridge west of Hatteras Island.
- All Bridge Alternative – NC 12 would be relocated onto a bridge west of the forecasted 2060 high erosion shoreline in the north end of the Refuge. At the south end of the Refuge and in Rodanthe, NC 12 would be placed on a bridge west of Hatteras Island.
- Phased Approach Alternatives – NC 12 would be elevated in its current easement onto a series of bridges within the Refuge and in Rodanthe. There are two options for the Phased Approach in Rodanthe. The Phased Approach/Rodanthe Nourishment Alternative includes a bridge that ends just south of the Refuge border and the use of beach nourishment to stabilize NC 12 in Rodanthe. The Phased Approach/Rodanthe Bridge Alternative includes a bridge in Rodanthe that ends just north of the Rodanthe Historic District (no beach nourishment).

Based on the alternatives above, NCDOT has proposed several possible options for fixing the two breaches for the long-term.

For the Pea Island breach, these options include:

- Beach nourishment;
- Building a bridge within the existing NC 12 easement;
- Building a bridge on a new location to the west of the existing road; and
- Building a road on a new location to the west of the existing road.

For the Rodanthe breach, these options include:

- Beach nourishment;
- Building a bridge within the existing NC 12 easement;
- Building a bridge within the existing NC 12 easement and beach nourishment; and
- Building a bridge on a new location in Pamlico Sound.

These options are shown on Figures 2 and 3 on the following pages and in detail on the maps available at tonight's meeting.

Figure 2

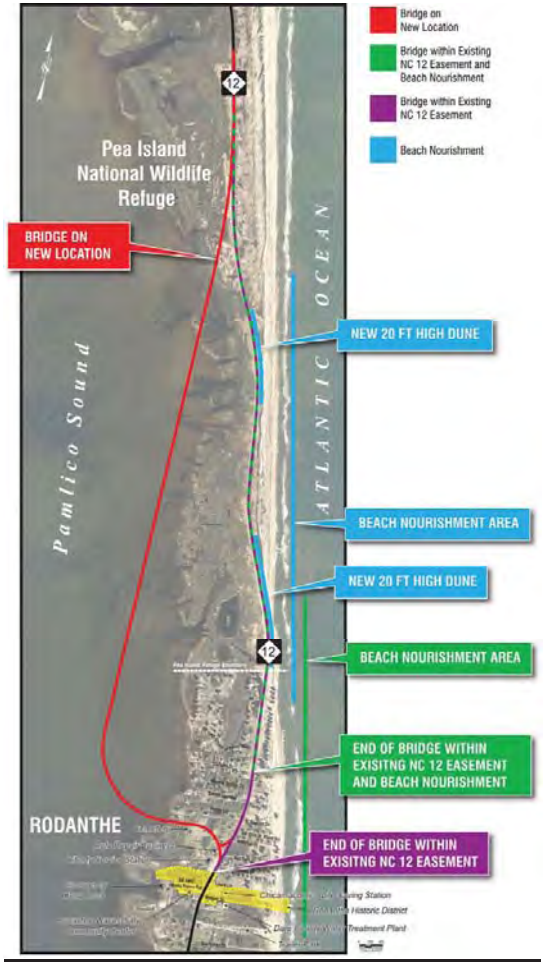


Figure 3

After analyzing the changes to existing conditions in the project area as a result of Hurricane Irene, NCDOT will re-evaluate the impacts of these design options to determine the best long-term solutions for both breach sites. Comments received from state and federal environmental resource and regulatory agencies, as well as from the public, will be used to determine which options should be studied further and ultimately which options are selected for each site.

IMPACT ANALYSIS

Tables 1 and 2 on the following pages illustrate the potential impacts of each option for the two breach sites. The information presented here is based on studies conducted for the project prior to Hurricane Irene; NCDOT will update this impact information to account for the current environmental conditions for those options that are chosen for further study. Only the most current information available will be used to select the final option for each site.

Included in the analysis of each site in Tables 1 and 2 is a list of potential concerns with each option that could prohibit the option from being studied further. These concerns are based on comments to NCDOT made by either the federal and state agencies associated with the project, or by coastal engineers and scientists that NCDOT has consulted with during the life of the project.

PROJECT COSTS

The contract for the final design and construction of the new Oregon Inlet bridge (Phase I of the project) was awarded in July 2011 at a cost of $215.8 million.

The project's Record of Decision (ROD) presented a range of costs for different options for maintaining NC 12 between Oregon Inlet and Rodanthe. At that time, the costs of the Parallel Bridge Corridor alternatives (not including the cost of the new Oregon Inlet bridge) were as shown in Table 3 on page 11.

Long-term bridging options for the Pea Island Breach site are estimated to cost between $97 million and $147 million (2006 dollars); these costs represent only the initial construction cost of a new bridge.

Long-term bridging options that span the Rodanthe Breach site only are estimated to cost between $114 million and $240 million (2006 dollars); these costs represent only the initial construction cost of a new bridge.

Because the beach nourishment and road relocation options extend beyond the immediate breach areas, cost estimates for those options are not immediately available.

Updated construction cost estimates for the two breach sites will be prepared for the long-term options that are chosen for further detailed study.

Table 1. Phase II Impacts – Pea Island Breach Area

	Beach Nourishment	Bridge on New Location	Road on New Location	Bridge within Existing NC 12 Easement
Community and Visual Impacts				
Visual Impact	None	Sizeable visual intrusion into the landscape of the Refuge.	None	Sizeable visual intrusion into the landscape of the Refuge.
Anticipated Need for Refuge Compatibility Determination	Compatibility Determination expected (for all alternatives that use Refuge lands outside the existing NC 12 easement).	Compatibility Determination expected (for all alternatives that use Refuge lands outside the existing NC 12 easement).	Compatibility Determination expected (for all alternatives that use Refuge lands outside the existing NC 12 easement).	No Compatibility Determination required.
Cultural Resource Impacts				
Pea Island National Wildlife Refuge (historic site)	No Adverse Effect.	Adverse Effect because the relocation of NC 12 would intrude into the existing dikes and ponds, and because of the elevation of the bridge as it passes through the Refuge.	Adverse Effect because the relocation of NC 12 would intrude into the existing dikes and ponds.	Adverse Effect because of the elevation of the bridge as it passes through the Refuge.
Parks and Recreation Impacts				
General Refuge Access	Little change in access. Refuge facilities protected from future beach erosion.	Direct access to some Refuge facilities lost.	Paved road access maintained but with some changes.	Direct access to some Refuge facilities lost.
Coastal Conditions Impacts				
Potential for Breach and Need for Closing Breach to Maintain NC 12	If additional breach occurs, breach would need to be closed.	Potential (and current) breach areas bridged. No expected need to close future breaches.	If additional breach occurs, breach would need to be closed.	Potential (and current) breach areas bridged. No expected need to close future breaches.
Natural Resources Impacts				
Biotic Communities Fill and Pile Impacts, acres (hectares)				
• **Wetlands**	0.8 (0.3)	0.1 (0.1)	3.0 (1.2)	0.1 (0.1)
• **Uplands – Natural and Man Dominated**	2.7 (1.1)	1.6 (0.6)	10.5 (4.2)	1.2 (0.5)
• **Aquatic Bottom**	0.0 (0.0)	0.0 (0.0)	0.2 (0.1)	0.0 (0.0)
Total	3.5 (1.4)	1.7 (0.7)	13.7 (5.5)	1.3 (0.5)
Wetlands shaded, acres (hectares)	0.0 (0.0)	1.1 (0.4)	0.0 (0.0)	0.2 (0.1)
Protected Species Impacts	Likely disturbance to piping plover and sea turtles nesting on beach; not likely to adversely affect in ocean. Beach nourishment could affect seabeach amaranth habitat.	None likely.	None likely.	None likely.
Potential Constraints	Not likely to be found compatible with Refuge's mission and purpose; sand quality and sand availability for a long-term solution is a concern; at least partial filling of breach would be required.	Not likely to be found compatible with Refuge's mission and purpose.	Not likely to be found compatible with Refuge's mission and purpose; at least partial filling of breach would be required.	None

Table 2. Phase II Impacts – Rodanthe Area

	Beach Nourishment	Bridge on New Location	Bridge within Existing NC 12 Easement	Bridge within Existing NC 12 Easement and Beach Nourishment
Community and Visual Impacts				
Residential Relocations	0	2	6	0
Business Relocations	0	5	7	0
Cemetery Impacts	None	Proposed right-of-way would cross cemetery, but no known gravesites would be affected.	None	None
Anticipated Need for Refuge Compatibility Determination	Compatibility Determination expected (for all alternatives that use Refuge lands outside the existing NC 12 easement).	Compatibility Determination expected (for all alternatives that use Refuge lands outside the existing NC 12 easement).	No Compatibility Determination required.	Compatibility Determination expected (for all alternatives that use Refuge lands outside the existing NC 12 easement).
Rodanthe Community Cohesion and Accessibility	No impact.	No impact.	0.8 mile (1.3 kilometers) of bridge would bisect community and make vehicle access more circuitous.	0.3 mile (0.5 kilometer) of bridge would bisect community; access more circuitous
Noise Impact (estimated number of sensitive receptors affected)	2 residential receptors exceeding FHWA NAC	3 residential receptors exceeding FHWA NAC, and 3 residential receptors (including 1 of the 3 exceeding FHWA NAC) and 1 business receptor with substantial noise increases	3 residential receptors exceeding FHWA NAC	2 residential receptors exceeding FHWA NAC
Visual Impact	None	Panoramic views of Pamlico Sound from homes along shoreline in Rodanthe would be affected.	Sizeable visual intrusion into the landscape of the Refuge; views in Rodanthe near the Refuge affected.	Sizeable visual intrusion into the landscape of the Refuge; views in Rodanthe near the Refuge affected.
Cultural Resource Impacts				
Rodanthe Historic District and Chicamacomico Life Saving Station	No Effect.	No Adverse Effect; the alternative ends outside the district, so cultural resources would not be directly affected; alternatives would be within view of resources, but view also currently includes modern commercial and residential structures.	No Adverse Effect; the alternative ends outside the district, so cultural resources would not be directly affected; alternative would be within view of resources, but view also currently includes modern commercial and residential structures.	No Effect
Pea Island National Wildlife Refuge	No Adverse Effect.	Adverse Effect because the alternatives would leave the existing NC 12 easement, and because of the elevation of the bridge as it passes through the Refuge.	Adverse Effect because of the elevation of the bridge as it passes through the Refuge.	Adverse Effect because of the elevation of the bridge as it passes through the Refuge.

Table 2 (concluded). Phase II Impacts – Rodanthe Area

	Beach Nourishment	Bridge on New Location	Bridge within Existing NC 12 Easement	Bridge within Existing NC 12 Easement and Beach Nourishment
Parks and Recreation Impacts				
General Refuge Access	Little change in access. Refuge facilities protected from future beach erosion.	Bridge through Pamlico Sound in southern portion of Refuge would reduce access in that area.	Bridge in existing NC 12 easement in southern portion of Refuge would reduce access in that area.	Bridge in existing NC 12 easement in southern portion of Refuge would reduce access in that area.
Length of NC 12 Outside the Existing Easement within the Refuge	None.	0.7 mile (1.1 kilometers)	None.	None.
Coastal Conditions Impacts				
Potential for Breach and Need for Closing Breach to Maintain NC 12	Nourishment would reduce the risk of a breach. Any breaches through the Refuge would need to be closed.	Potential breach area north of Rodanthe bridged. No expected need to close future breaches.	Potential breach area north of Rodanthe bridged. No expected need to close future breaches.	Potential breach areas bridged. Phases II and III may need to be accelerated, if a breach occurred before all four phases are completed.
Natural Resources Impacts				
Biotic Communities Fill and Pile Impacts, acres (hectares)				
• **Submerged Aquatic Vegetation (SAV)**	0.0 (0.0)	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)
• **Wetlands**	0.0 (0.0)	2.0 (0.8)	0.0 (0.0)	0.0 (0.0)
• **Uplands – Natural and Man Dominated**	11.2 (4.5)	5.6 (2.2)	7.2 (2.9)	2.8 (1.1)
Total	11.2 (4.5)	7.7 (3.1)	7.2 (2.9)	2.8 (1.1)
Wetlands and SAV Shaded, acres (hectares)				
• **Wetlands**	0.0 (0.0)	1.5 (0.6)	0.0 (0.0)	0.0 (0.0)
• **SAV**	0.0 (0.0)	5.3 (2.1)	0.0 (0.0)	0.0 (0.0)
Protected Species Adversely Affected	Likely disturbance to piping plover and sea turtles nesting on beach; not likely to adversely affect in ocean. Beach nourishment could affect seabeach amaranth habitat.	None likely.	None likely.	Likely disturbance to piping plover and sea turtles nesting on beach; not likely to adversely affect in ocean. Beach nourishment could affect seabeach amaranth habitat.
Potential Constraints	Not likely to be found compatible with Refuge's mission and purpose; sand quality and sand availability for a long-term solution in an area with a rapid erosion rate is a concern; would require extensive dredging to acquire the sand needed; would have to be repeated frequently.	Not likely to be found compatible with Refuge's mission and purpose.	Rapid erosion rate in this area may cause portions of the structure to be in the surf zone or offshore in the future.	Same concerns as with beach nourishment option; in addition, rapid erosion rate in this area may cause portions of the structure to be in the surf zone or offshore in the future.

Table 3. Total Highway Costs through 2060*
(Costs for Alternatives to Maintain NC 12 between Oregon Inlet and Rodanthe, including the Two Breach Sites)

	Low	High
Beach Nourishment	$407,745,000	$657,260,000
Road North/Bridge South	$330,958,000	$412,958,000
All Bridge	$791,108,000	$1,063,108,000
Phased Approach/Rodanthe Nourishment	$816,068,000	$1,136,320,000
Phased Approach/Rodanthe Bridge	$797,459,000	$1,076,113,000

* All costs are in 2006 dollars. These estimates include the costs of project construction, maintenance, and mitigation.

RIGHT-OF-WAY PROCEDURES

Construction of Phase I (the new Oregon Inlet bridge) of the project will not require the purchase of land from private property owners. However, Phase II of the project within Rodanthe could require the purchase of private property and relocation of homes and businesses. Specific acquisitions will depend on the alternative selected.

After the final design of any future phase(s) is complete, the proposed right-of-way limits will be staked on the ground. If you are an affected property owner, a Right-of-Way Agent will contact you and arrange a meeting. The agent will explain the plans and advise you as to how the project will affect you. The agent will inform you of your rights as a property owner. If permanent right-of-way is required, professionals who are familiar with real estate values will evaluate or appraise your property. The evaluations or appraisals will be reviewed for completeness and accuracy; then, the Right-of-Way Agent will make a written offer to you. The current market value of the property at its highest and best use when appraised will be offered as compensation. The Department of Transportation must:

1. Treat all owners and tenants equally.
2. Fully explain the owner's rights.
3. Pay just compensation in exchange for property rights.
4. Furnish relocation advisory assistance.

Right-of-Way Agents are available at tonight's meeting to answer your questions.

RELOCATION ASSISTANCE

If you are a relocatee, that is, if your residence or business is to be acquired as part of the project, additional assistance in the form of advice and compensation is available. You will be provided with assistance on locations of comparable housing and/or commercial establishments, moving procedures, and moving aid. Moving expenses may be paid for you. Additional monetary compensation is available to help homeowners cope with mortgage increases, increased value of comparable homes, closing costs, etc. A similar program is available to assist business owners. The Right-of-Way Agent can explain this assistance in greater detail.

WHAT'S NEXT FOR PHASE II?

After reviewing comments from citizens as well as input from a panel of coastal engineers and scientists, NCDOT and FHWA will meet with the project's "merger team," which includes members of federal and state agencies with interests in the project. That group is scheduled to meet in December and determine what options will be studied further for each site.

The merger team will meet again in early 2012 to determine the final option for each site. NCDOT and FHWA will then complete any required environmental documentation and apply for the appropriate environmental permits.

NCDOT expects to issue a construction contract for the Pea Island Breach site in August 2012, and a construction contract for the Rodanthe Breach site in December 2012.

In the meantime, NCDOT will continue the current coastal monitoring program of the entire project area to determine when future phases of the project should be implemented.

STATUS OF PHASE I (OREGON INLET BRIDGE)

A design-build contract for Phase I (the new Oregon Inlet bridge) was awarded in July. The contractor is currently working on the final design of the new bridge. Once all of the necessary environmental permits have been received, the contractor will start construction of the new bridge; construction is scheduled to start in January 2013. The new bridge is expected to be opened in the Spring of 2015, with all remaining work (including the demolition of the current bridge) to be completed in 2016. More information about Phase I of the project is available at tonight's meeting, and additional workshops will be scheduled in 2012 so that the contractor can answer your questions about the construction of the new bridge.

ADDITIONAL INFORMATION

As mentioned above, please leave comments in the comment box at the hearing or send them to Ms. Beth Smyre at the address on page 2.

For more information on NC 12 and the Bonner Bridge Replacement Project:

- Visit www.ncdot.org/travel/nc12recovery
- Follow our NC 12 Twitter feed at http://twitter.com/NCDOT_NC12
- Go to our Repairing NC 12 blog at http://nc12repairs.blogspot.com/
- Visit www.ncdot.org/projects/bonnerbridgerepairs
- Or call John Page or Bobby Norburn at the Project Hotline (toll-free): 1-866-803-0529.

Title VI Public Involvement Form

Completing this form is completely voluntary. You are not required to provide the information requested in order to participate in this meeting.

Meeting Type: Public Workshops **Location:** Manteo/Rodanthe/Ocracoke	**Date:** 12/05/11, 12/06/11, 01/05/12
TIP No.: B-2500 **Project Description:** Bonner Bridge Replacement Project	

In accordance with Title VI of the Civil Rights Act of 1964 and other civil rights provisions of Federal statutory law, the North Carolina Department of Transportation (NCDOT) assures that no person(s) affected by its programs, policies, or activities, shall be excluded from participation in, denied the benefits of, or subjected to discrimination on the grounds of race, color, national origin, disability, age, income, or gender.

This form helps the State DOT meet its statutory obligations for data collection and public involvement under Title VI and NEPA. Please place completed forms in the designated box on the registration table or mail it to the NCDOT Office of Civil Rights, Title VI Section at 1511 Mail Service Center, Raleigh, NC 27699-1511.

Completed forms will be held on file at the NCDOT as part of the public record.

Zip Code: _____

Street Name:
(i.e. Main Street) _____

Total Household Income:

- ☐ Less than $12,000
- ☐ $12,000 – $19,999
- ☐ $20,000 – $30,999
- ☐ $31,000 – $46,999
- ☐ $47,000 – $69,999
- ☐ $70,000 – $93,999
- ☐ $94,000 – $117,999
- ☐ $118,000 or greater

Gender: ☐ Male ☐ Female

Age:

- ☐ Less than 18
- ☐ 18-29
- ☐ 30-44
- ☐ 45-64
- ☐ 65 and older

Disabled: ☐ **Yes** ☐ **No**

Race/Ethnicity:

- ☐ White
- ☐ Black/African American
- ☐ Asian
- ☐ American Indian/Alaskan Native
- ☐ Native Hawaiian/Pacific Islander
- ☐ Hispanic/Latino
- ☐ Other (please specify): _____

National Origin: (if born outside the U.S.)

- ☐ Mexican
- ☐ Central American: _____
- ☐ South American: _____
- ☐ Puerto Rican
- ☐ Chinese
- ☐ Vietnamese
- ☐ Korean
- ☐ Other (please specify): _____

For further information regarding Title VI or this process, please contact the NCDOT Title VI Section at (919) 508-1808 or toll free at 1-800-522-0453, or by email at slipscomb@ncdot.gov.

Thank you for your cooperation!

NCDOT Office of Civil Rights
Title VI Section
1511 Mail Service Center
Raleigh, NC 27699-1511

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME:

ADDRESS:

E-MAIL:

COMMENTS AND/OR QUESTIONS:

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

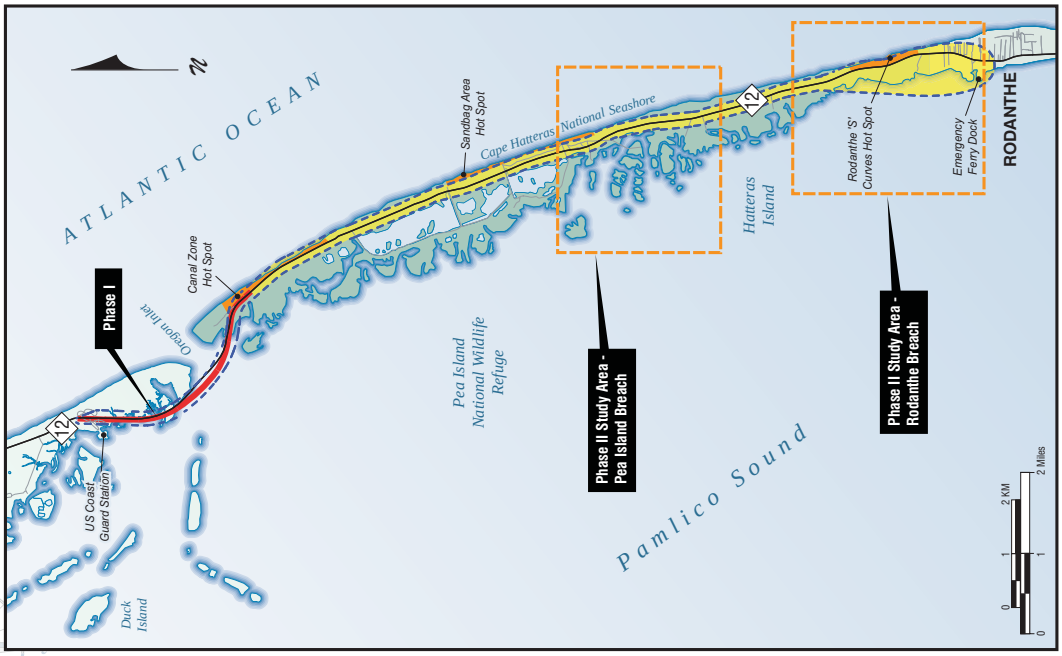
Email: bsmyre@ncdot.gov

Ms. Beth Smyre, PE
NCDOT - PDEA
1548 Mail Service Center
Raleigh, NC 27699-1548

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

Phase II Study Areas

Bonner Bridge Replacement Project



TIP Project No. B-2500

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

Welcome

Bonner Bridge Phase II Public Workshops

December 5 and 6, 2011

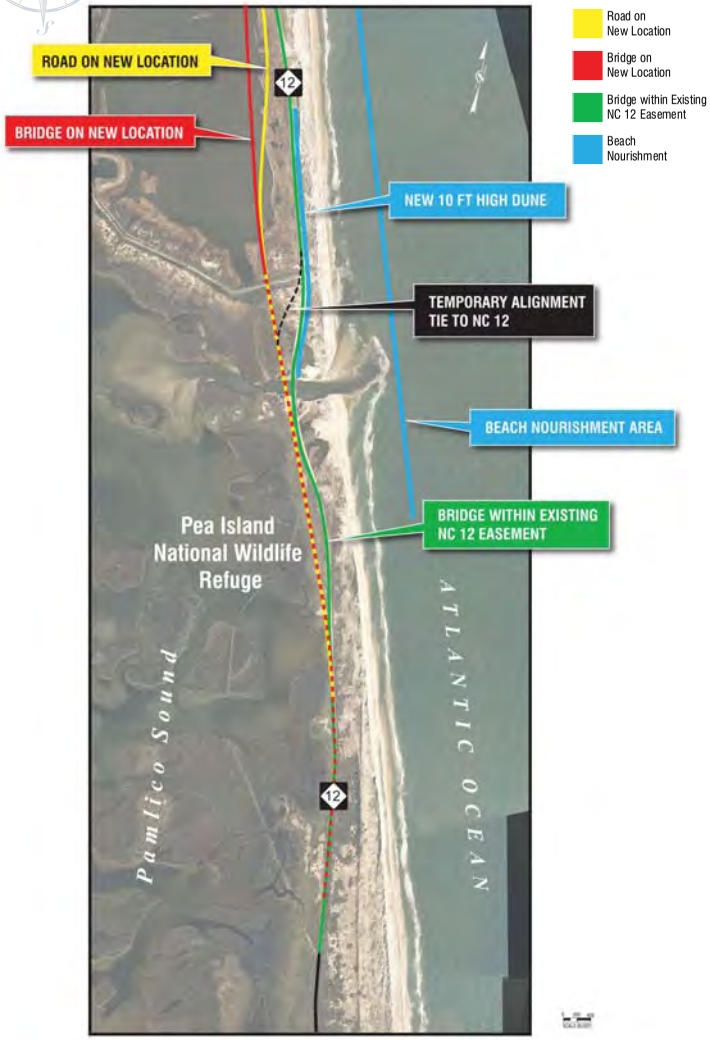
TIP Project No. B-2500

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

Phase II Study Areas

Pea Island Breach



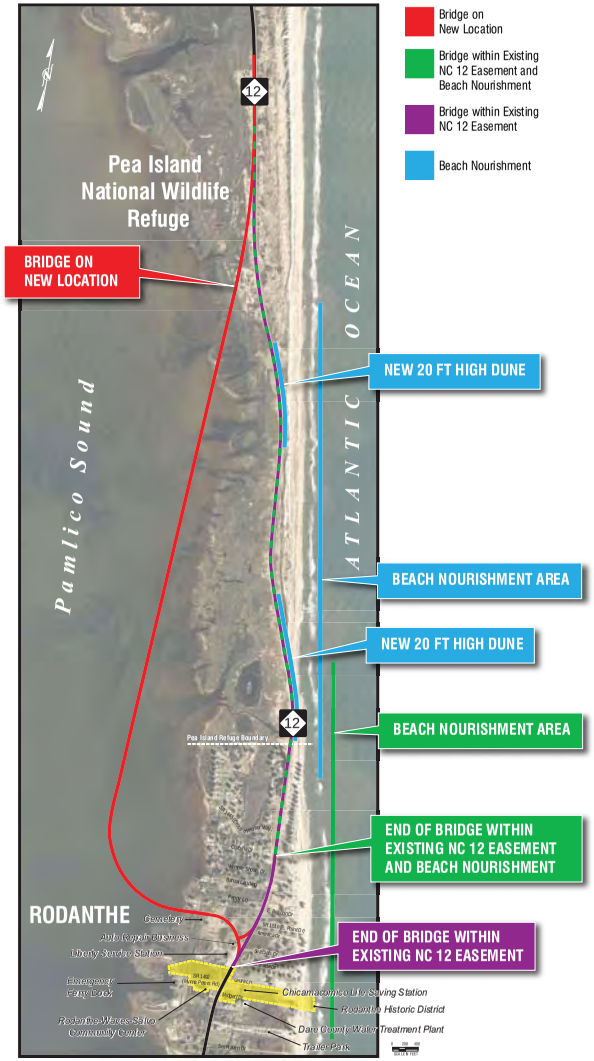
TIP Project No. B-2500

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

Phase II Study Areas

Rodanthe Breach



TIP Project No. B-2500

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

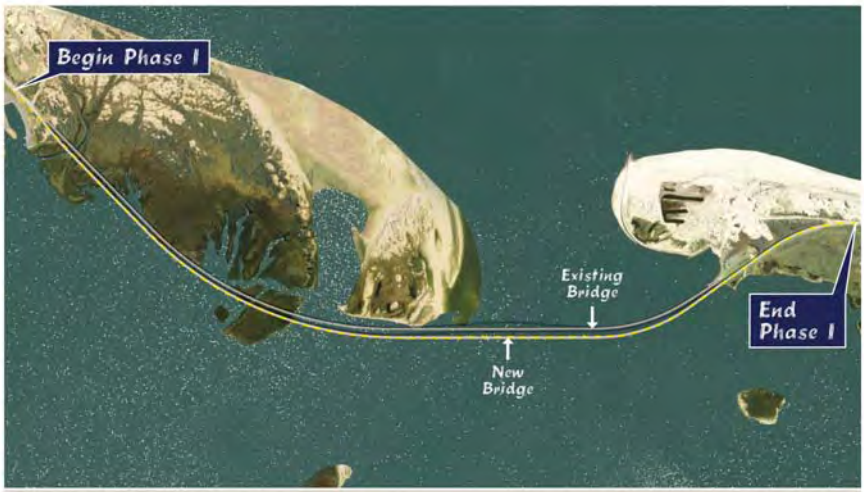
REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

Phase I (New Oregon Inlet Bridge)

Photo Simulations

View of Channel Spans

New Bridge (looking south)



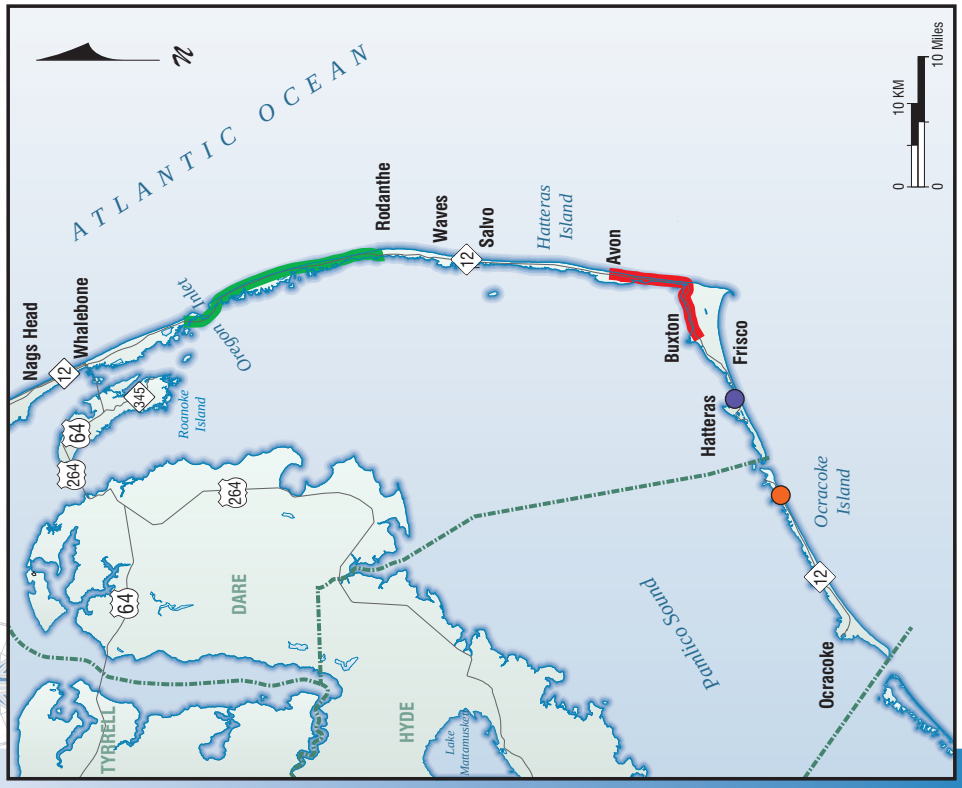
Plan View of Project Area

TIP Project No. B-2500

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

NCDOT Projects on North Carolina's Outer Banks



NCDOT Projects

- Bonner Bridge Replacement Project (STIP No. B-2500)
- Buxton to Avon Planning and Environmental Studies for Maintaining Roadway (STIP No. R-4070B)
- Ocracoke Island Hot Spot Interim Improvements (STIP No. R-3116A)
- Hatteras Village Hot Spot Interim Improvements (STIP No. R-3116B)

TIP Project No. B-2500

BONNER BRIDGE

TIP B-2500

Public Workshop Schedule

Dec 5th in Manteo

Dare Co. Administration Building

Public Workshop – 4 p.m. to 7 p.m.

Dec 6th in Rodanthe

Rodanthe-Waves-Salvo Community Center

Public Workshop – 4 p.m. to 7 p.m.

Jan 5th in Ocracoke

Ocracoke Community Center

Public Workshop – 5 p.m. to 7 p.m.

BONNER BRIDGE

TIP B-2500

WELCOME!

Public Workshops:
December 5 and 6, 2011 and January 5, 2012

BONNER BRIDGE

TIP B-2500

Public Workshops

- Informal – Speak one-on-one with project team members
- Consists of several "Stations"
- Opportunity to provide written comments

BONNER BRIDGE

TIP B-2500

Public Workshop Goals

1. Introduce Phase II of the Bonner Bridge Replacement Project
2. Discuss the Pea Island and Rodanthe design options
3. Hear your comments and concerns

BONNER BRIDGE

TIP B-2500

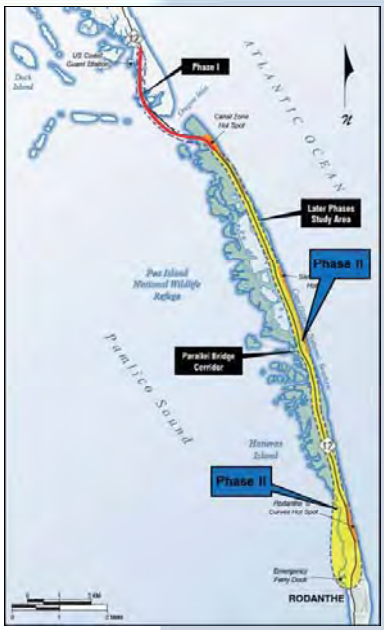
Pea Island Repairs

- Installed temporary bridge at breach site
- Installed sheet piles and sand bags to protect ends of bridge and roadway
- Sand used to fill smaller breaches

BONNER BRIDGE

TIP B-2500

- Parallel Bridge Corridor with NC 12 Transportation Management Plan
  - Phase I: Construction of new Bonner Bridge over Oregon Inlet
  - Coastal monitoring program
  - Phase II: Long-term solutions for both the Pea Island and Rodanthe breach sites

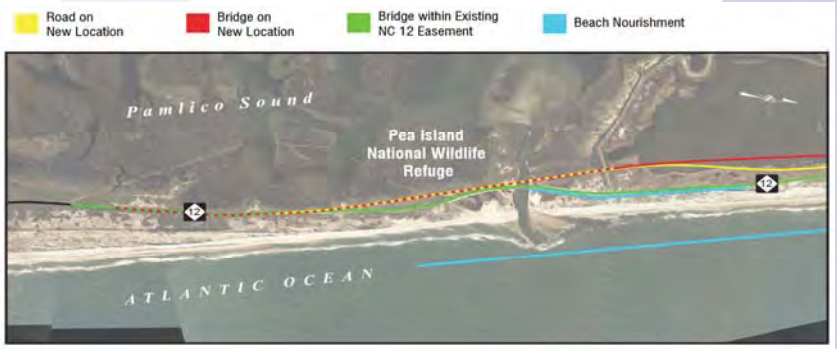


BONNER BRIDGE

TIP B-2500

Alternatives: Pea Island

- Beach nourishment
- Bridge within easement
- Bridge on new location
- Road on new location



BONNER BRIDGE

TIP B-2500

Rodanthe Repairs

- Used sand to fill in breaches
- Stockpiled sand for dune reconstruction
- Installed sand bags along the S-curves

BONNER BRIDGE

TIP B-2500

Impact Analysis

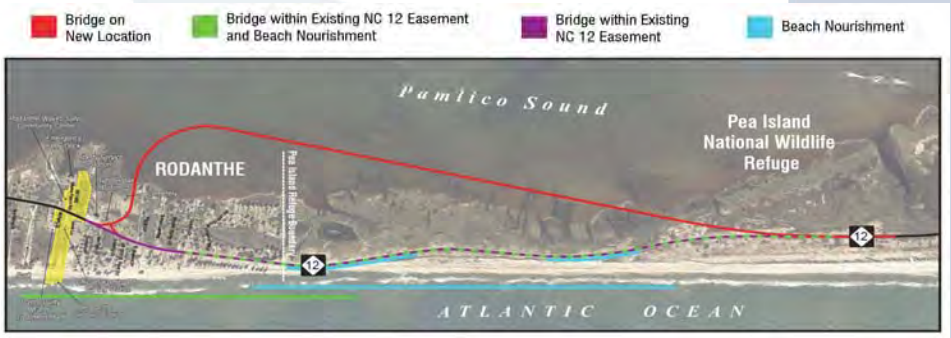
- Natural environment
  - Wetlands, endangered species, habitat
- Human environment
  - Property relocations, community services
- Coastal conditions
  - Shoreline position, potential for another breach
- Compatibility with federal lands
- Funding

BONNER BRIDGE

TIP B-2500

Alternatives: Rodanthe

- Beach nourishment
- Bridge within easement
- Bridge on new location



BONNER BRIDGE

TIP B-2500

Next Steps

1. Comments reviewed and addressed
2. State and federal agencies meet to discuss design options
3. NCDOT will complete any further studies and acquire permits
4. Contract awarded for Pea Island – August 2012
5. Contract awarded for Rodanthe – December 2012

BONNER BRIDGE

TIP B-2500

Right-of-Way Acquisition

- No private property acquired for Phase I
- Phase II could require property acquisition and the relocation of homes and businesses in Rodanthe
- See the right-of-way agent here tonight if you have questions

BONNER BRIDGE

TIP B-2500

For More Information on NC 12:

Hurricane Irene recovery efforts web page:
www.ncdot.org/travel/nc12recovery

Twitter: **http://twitter.com/NCDOT_NC12**

Blog: **http://nc12repairs.blogspot.com/**

Bonner Bridge Replacement Project web page:
www.ncdot.org/projects/bonnerbridgerepairs

BONNER BRIDGE

TIP B-2500

Status of Phase I

- Replacement of Bonner Bridge
- Currently in the design stage
- Start of Construction: January 2013
- Open to traffic: Spring 2015

BONNER BRIDGE

TIP B-2500

THANK YOU!

BONNER BRIDGE

TIP B-2500

Drop your comments in the box

E-mail your comments

Mail your comments

Comments are being accepted until **January 20, 2012**; however, NCDOT encourages citizens to submit their comments as soon as possible

BONNER BRIDGE

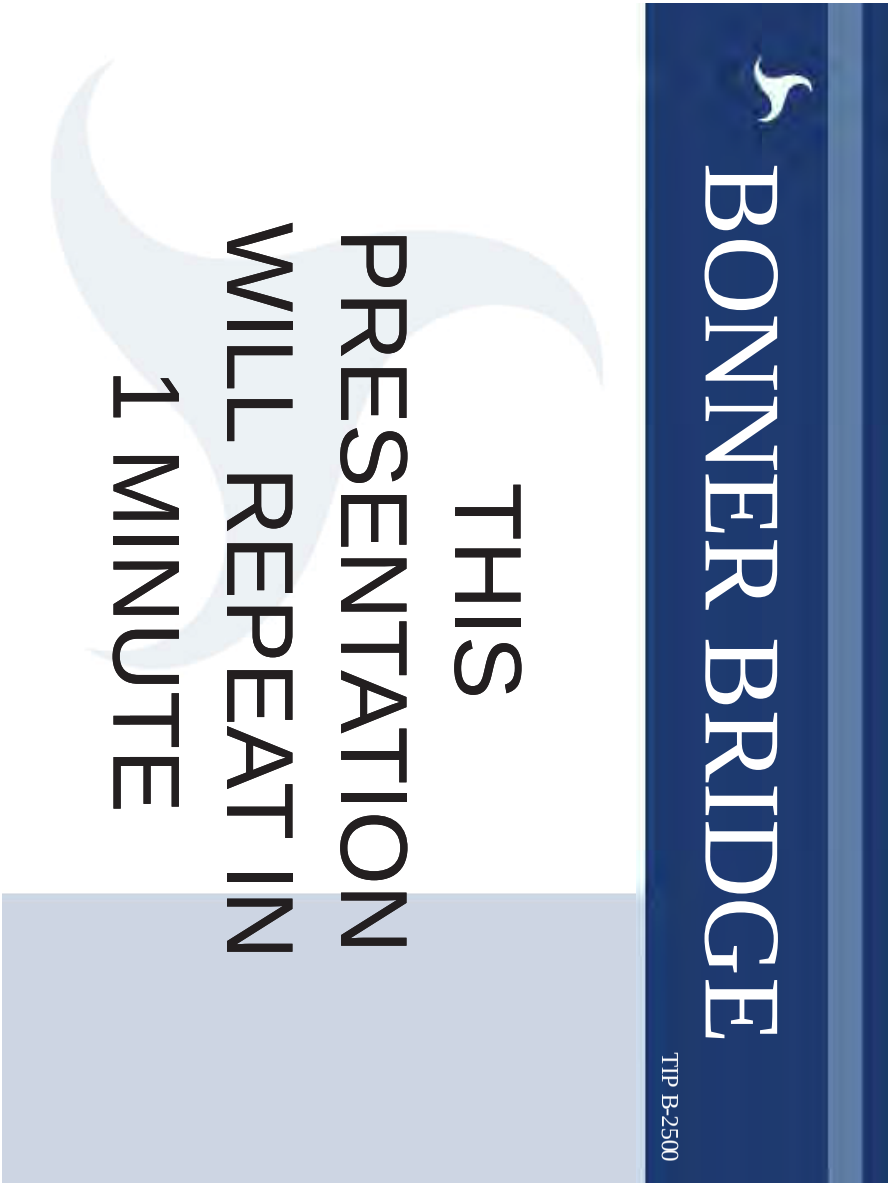
TIP B-2500

THIS PRESENTATION WILL REPEAT IN 2 MINUTES

BONNER BRIDGE

TIP B-2500

Please Proceed to the Main Area



Smyre, Elizabeth A

From: Tom Bartley <tom@bartleycorp.com>
Sent: Friday, December 09, 2011 5:17 PM
To: Smyre, Elizabeth A
Subject: Southgate Dr Rodanthe

Dear Ms. Smyre,
My wife and I own an oceanfront home at 23210 Southgate Dr. Rodanthe. Southgate Dr is a non county maintained "street" between East Corbina Dr and East Beacon Drive.
After studying the two bridge alternatives within the right of way, it is not clear to me how our property (plus our neighbors) would be accessed. If the bridge were in fact to be 25 ft in elevation, I can't imagine how a transition could be accomplished. If you could please write back addressing this issue, I would be very grateful.
Thank you.
Tom Bartley
301-252-0568

Smyre, Elizabeth A

From: Tom Bartley <tom@bartleycorp.com>
Sent: Monday, December 12, 2011 6:04 PM
To: Smyre, Elizabeth A
Subject: Re: Southgate Dr Rodanthe

Beth,
Thanks for your quick and informative response. So many time when one contacts government officials the response takes a long time.I remember seeing the side roads on an earlier version of the maps, but must of missed it on the version I looked at on Friday. I fully understand the three options now. I am a concrete contractor is the DC-Maryland area who is generally pro development. So faced with the three choices an elevated bridge passing by Southgate would be my least favorite alternative as it would impact our area more than the other two. Thanks again.
Tom Bartley
On Mon, 12 Dec 2011 18:56:20 +0000
"Smyre, Elizabeth A" <bsmyre@ncdot.gov> wrote:
> Tom-
> Thank you for your comment and question. For the option called "Bridge
> Within Existing NC 12 Easement and Beach Nourishment," any bridging
> would end far enough north of Southgate Drive such that there would be
> no change to the NC 12 roadway in that location. The proposed beach
> nourishment area for that option extends south until just past the
> Chicamacomico Lifesaving Station, so it would be on the ocean side of
> the properties on Southgate Drive.
>
> For the "Bridge Within Existing NC 12 Easement," the section of NC 12
> would be on a bridge that would continue farther south (it ends just
> north of the Liberty Service
> Station) than the option above. Access to Southgate Drive would be
> maintained through a set of one-lane, one-way service roads on either
> side of the new bridge. There is no beach nourishment included with
> this option (that's why the bridge goes farther south).
>
> The maps that we presented last week are available on the NC 12
> Recovery web page at:
>
> http://www.ncdot.org/travel/nc12recovery/
>
> Look under the "Rodanthe Breach Design Options." If you have any
> further questions or comments, please let me know!
> Thanks,
> Beth
>
> ----------
> ***Please note my phone number has changed, effective March 30, 2011-
> see below.***
>
> Beth Smyre, P.E.
> Project Planning Engineer
> NC Department of Transportation

> Project Development & Environmental Analysis Branch
> 1548 Mail Service Center
> Raleigh, NC 27699-1548
> (919) 707-6043
>
>
> -----Original Message-----
> From: Tom Bartley [mailto:tom@bartleycorp.com]
> Sent: Friday, December 09, 2011 5:17 PM
> To: Smyre, Elizabeth A
> Subject: Southgate Dr Rodanthe
>
> Dear Ms. Smyre,
> My wife and I own an oceanfront home at 23210 Southgate Dr. Rodanthe.
> Southgate Dr is a non county maintained "street" between East Corbina
> Dr and East Beacon Drive.
> After studying the two bridge alternatives within the right of way,
> it is not clear to me how our property (plus our neighbors) would be
> accessed. If the bridge were in fact to be 25 ft in elevation, I can't
> imagine how a transition could be accomplished. If you could please
> write back addressing this issue, I would be very grateful.
> Thank you.
> Tom Bartley
> 301-252-0568
>
> _____
>
> Email correspondence to and from this sender is subject to the N.C.
> Public Records Law and may be disclosed to third parties.

Smyre, Elizabeth A

From: rpbauer@aol.com
Sent: Friday, December 09, 2011 12:06 PM
To: Smyre, Elizabeth A
Subject: NC 12 Comment

Greetings,
I live on Hatteras Island.
I have reviewed the plans for the long term plans for NC12.

To me the science, and the conditions actually in place on Pea Island suggest the only responsible action is to abandon NC 12 north of Mirlo.
Regardless of politics or engineering, Mother Nature is taking over up there.
NCDOT will clearly build highways & bridges to nowhere on Pea Island.

Once we abandon NC 12 north of Mirlo we have 2 choices:

1. Build a 17 mile causeway bypassing Pea Island entirely
2. Expand a permanent ferry service from mainland to Rodanthe.

I do recognize that the causeway approach might not provide a positive cost/benefit result.
The debt service may just be too great for Hatteras Island to absorb.
Then we should have a ferry.

Anything else seems irresponsible use of taxpayer monies.
In today's day, we must find a way to spend where it makes sense and recognize where it doesn't.
Sometimes we just need to say no.
Can we find such leadership?

Thanks,

Bob Bauer

Smyre, Elizabeth A

From: Abbott, Steve
Sent: Tuesday, January 17, 2012 10:46 AM
To: Smyre, Elizabeth A
Subject: Contact us comment for you

Rob Beedie Phone: (757)633-7445 Email: Rob@GlobalSurfNetwork.com

Comment History
Tracking Number: KX6140G1C2

Sent By: Rob Beedie Date/Time: 1/14/2012 8:56 AM
Comment:
To Whom It May Concern:

I could write a book on why this area (Pea Island to S-turns) should be preserved for future generations to enjoy and the importance in keeping free and open access to the beaches but instead I'm leaving a link to a short video, https://www.facebook.com/video/video.php?v=2359968642934 ,that I would like to share with you in hopes that it motivates each of you that are decision makers to do the right thing in regards to protecting the basic rights of the people, that being, each of our rights to Life, Liberty, and Pursuit of Happiness.

Education is the key in helping make this suggestion work and our children, your children, and all of America will thank you for many years to come if through your leadership you act positively for the people by understanding their request and supporting freedom at its very core.

https://www.facebook.com/video/video.php?v=2359968642934

Sincerely,

Rob Beedie, GSN
Global Surf Network

www.GlobalSurfNetwork.com

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Comments on NC12 Repair Alternatives - Rodanthe

Submitted by: Mark & Linda Bowers
Dare County Address: 27222 N Sunrise Ct, Salvo NC
Mailing Address: 137 Mount View Dr. Afton VA 22920
Email: mbalntel@cfw.com
Date: Jan 18, 2012

Let us first express our thanks to NCDOT and all involved parties for their continuing effort in maintaining and repairing NC12 over so many years. This effort is not only the construction work and maintenance that continues, but all of the meetings and work that goes into an issue that has many demands and pressures for different solutions. So please keep up the good work and accept our thanks! We feel that NC12 is a vital ink to allow many people to enjoy this unique area of the USA, and should be maintained.

The factors which we list below seem to us to be very important, but yet do not appear to be on the list of factors being considered in the published information. We are not advocating the removal of other factors, but we do feel that the factors below need to be added and given high weight.

1. Maintaining a RoW for NC12 through the complete length of Pea Island - Our strongest recommendation is for a solution that maintains North Carolina's legal right to a road right-of-way within the whole length of Pea Island. We are urging you to select a solution that meets this criteria above all others, because, in our view, the political situation that changes from generation to generation will make it impossible to re-establish a new ROW once it is relinquished. Keeping the road within Pea Island is key legal point to maintaining this RoW in our view.

2. Bridge repair costs, length of time, and difficulty - A strong additional constraint is the cost of any sound bridge solution. There is continued advocacy to remove NC12 from Pea Island. In coming to understand the history of the ROW for NC12 on Pea Island and the solutions for the Bonner Bridge, it is becoming clear that the advocates of eliminating NC12 from Pea Island and moving it to a bridge out in the sound give little or no consideration of long term maintenance cost and difficulty. The cost of bridge repairs in any form is extremely high in comparison to land based road repair work, and such bridge repairs are very slow, especially out in a large body of water where all work must be done from large barges with shallow draft. In our view, such maintenance costs and difficulties have not been give due weight in such discussion.

3. Bridge accidents and blockage - Accidents on long bridges present a greater safety hazard, with a higher probability of lane blockage, and are harder to clear than accidents on road, particularly for vehicle fires. This factor becomes even more important in the case of emergency evacuations, which are a regular occurrence on Hatteras Island, and especially when there are 10's of thousands of visitors on the island. Land based road solutions offer many possibilities to move traffic quickly around accidents, simply because any crew with a tow rope can move a damaged vehicle quickly out of the way, and there is much more flexibility and room to move around. Having a land based road solution as much as possible and limiting the total bridge mileage seems a common sense way to be able to maintain critical evacuation routes.

These factors are not a direct endorsement of any particular proposed solution, **although it does lead us to advocate for rejection of the bridge out over the sound around Rodanthe, either the shorter one proposed or the longer one recently suggested by USFWS.**

Amongst the solutions proposed, we urge the working group to select either the short bridge in north Rodanthe within the existing ROW with or without beach nourishment, or the road rebuild with beach nourishment.

We also believe that the solutions involving beach nourishment have been prematurely removed from consideration, and should be re-considered. Only the lack of proper sand should eliminate this option in our view. We do recognize that there may be some effect on habitat, but the total area effected is small compared to the whole beach length in PINWR and in CHNSRA. Thus it should not have any substantial or lasting impact on habitat or species populations, the effect would be not be permanent, the area would recover and provide natural habitat for intervals between nourishment, and it is quite minor in comparison to the impacts of pond construction and continued maintenance in PINWR, for example.

Thank you.

Linda Bowers Mark Bowers

Smyre, Elizabeth A

From: mbaIntel@cfw.com
Sent: Thursday, January 19, 2012 10:32 AM
To: Smyre, Elizabeth A
Attachments: Comments on NC12 Repair Alternatives.doc

HI Ms. Smyre,

Please find a Word document attached to this email containing our thoughts, and recommendations on the proposed solutions for NC12 repairs around Rodanthe. We will be following up with a mailed hardcopy, with our signatures.

Thanks, and keepup the good work,

Mark & Linda Bowers

Smyre, Elizabeth A

From: Brock, Thomas <Thomas.Brock@cpschools.com>
Sent: Tuesday, January 10, 2012 10:53 AM
To: Smyre, Elizabeth A
Subject: RE: Road to Rodanthe

The road to s-turns and Rodanthe are iconic. Surfers from all over VA and NC have appreciated the ability to stop and surf. I understand the need for a bridge. I just hope they pick the shorter of the two. Thanks for your help in this matter.

Thomas G. Brock
P.E. Teacher at Rena B. Wright
thomas.brock@cpschools.com

From: Smyre, Elizabeth A [mailto:bsmyre@ncdot.gov]
Sent: Monday, January 09, 2012 3:01 PM
To: Brock, Thomas
Subject: RE: Road to Rodanthe

Thomas-
I have read the article that you are referring to, and I think the petition that you are looking for is located here:

http://www.thepetitionsite.com/1/preserve-future-access-to-s-turns/#13261388869231&action=udata&udata=false

You are also welcome to send me directly any comments you might have on the NC 12 projects.
Thanks,
Beth

Beth Smyre, P.E.
Project Planning Engineer
NC Department of Transportation
Project Development & Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548
(919) 707-6043

From: Brock, Thomas [mailto:Thomas.Brock@cpschools.com]
Sent: Friday, January 06, 2012 2:39 PM
To: Smyre, Elizabeth A
Subject: Road to Rodanthe

Greetings,

Read the article on espn regarding the bridge options to (or around) Rodanthe. The link posted redirects to the current page. Could you please respond with a link so that I may sign and forward to my friends. Thank you for all of your work!

Thomas G. Brock
P.E. Teacher at Rena B. Wright
thomas.brock@cpschools.com

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COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: FRANK & JUDE BROWN

ADDRESS: POB 475 OCRACOKE, NC 27960

E-MAIL: frankandjude@embarqmail.com

COMMENTS AND/OR QUESTIONS:

We favor BRIDGE at a New location for both beach areas. Get away from the ocean beach; building roads & bridges that can withstand the sound surges and be back from surf impact

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Smyre, Elizabeth A

From: Ross Byrd <rossebyrd@gmail.com>
Sent: Thursday, January 12, 2012 10:24 AM
To: Smyre, Elizabeth A
Subject: bridge next to pappy lane

Hi Beth,

I hope I am seeing this email to the right person. Mark Haines passed your email along to me. We also own a home on Pappy Lane in Rodanthe and I just wanted to say we are very concerned about the option that would involve a bridge coming right next to our homes. In an already struggling economy and real estate market our property values would take an even more substantial hit and our ability to rent would be irreversibly damaged. That rental ability is all that most of us have to hold on to. All of us on Pappy Lane, as far as I can tell, would be in serious financial turmoil with regard to our properties. And that is not to mention the effect on all other sound-side homes to the north of us. The traffic pattern, it seems, would also be a major issue.

I do realize, of course, that my complaint is at bottom quite self-seeking. I'm sure the concerns of a the property value of a few people pales in comparison to the drastic need to solve this crisis. That makes sense. I do realize how completed and difficult this decision must be. What can we do to help encourage another option? It seems to me that the bridge within the easement would be far better. What is the downside there? Thank you for reading this. - Ross

--
Ross Byrd
Campus Minister
Christ Episcopal Church
(757) 274-8998

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500

[redacted]
HYDE COUNTY

NAME: BRIAN CARTER

ADDRESS: PO BOX 693 OCRACOKE NC 27960

E-MAIL: BCARTER @ HYDECOUNTYNC.GOV

COMMENTS AND/OR QUESTIONS:

MY REQUEST IS THAT NO MATTER WHAT IS DONE, THAT EMERERGENCY SERVICES (ME - THE EMERGENCY SERVICES DIRECTOR) BE ADVISED IN ADVANCE OF ANY AND ALL CHANGES THAT COULD [redacted] EFFECT THE TRANSPORT OF SICK OFF THE ISLAND OR IN THE EVENT I NEED TO REQUEST RESOURCES TO OCRACOKE

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Smyre, Elizabeth A

From: James Charlet <hatterasjames@gmail.com>
Sent: Monday, December 19, 2011 1:09 PM
To: Smyre, Elizabeth A
Subject: Comment sheet, NC 12 workshop, Rodanthe
Attachments: COMMENT SHEET NC 12, 2011.doc

COMMENT SHEET

Bonner Bridge Replacement Project

Public Workshops – Phase II

TIP No. B2500

Dare County

NAME:

James Charlet

ADDRESS:

PO Box 362, SALVO 27972

EMAIL:

hatterasjames@gmail.com

COMMENTS AND/OR QUESTIONS:

Over 15 years ago, I read in our local paper a "Letter to the Editor" written by David Stick offering solutions to Hatteras Island's NC 12 problems. In all the time since I have heard many more "solutions" but none more sensible. He made his points more eloquently than I shall render here, but in essence those points were :

1. We all know where the "hot spots" are: the Canal Zone, New Inlet area, just north of Rodanthe, just north of Buxton and just north of Hatteras Village. So stop giving money away to outsiders to form studies to tell us exactly that.

2. Build bridges and/or causeways NOW over those spots and let the tide roll!

3. For budgeting purposes, phase the construction projects from north to south. This is also the order of most frequent breeches and overwashes.

4. Once new inlets are inevitably formed, they really are outlets, thereby giving the Sound more places to exit and thus reducing or lessening the amount of soundside flooding.

5. This system of roads-bridges-islands has a long history of success in the Florida Keys, which is in a far harsher climate and covers a much greater distance.

For at least 15 years, this sage advice has been ignored. It is time to be sensible.

Smyre, Elizabeth A

From: jcochol <jcochol@aol.com>
Sent: Saturday, December 17, 2011 9:17 AM
To: Smyre, Elizabeth A
Subject: Pea Island/Mirlo Beach

We would like to express our opinion regarding the long term options being presented for access to Hatteras Island. We have been coming to Hatteras for twenty five years and own two properties in Avon. We are recently retired and plan to spend more time in one of our homes there.

In the previous ongoing discussions regarding the Oregon Inlet Bridge replacement we were in favor of the bridge and causeway option that was on the table. In reviewing the current options for Phase II of this project we would support the "beach nourishment" option for the Pea Island and Mirlo Beach areas as the best proposed solution.

Thank you for your time.

John & Corry Cochol

(585) 394-8974

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: Mary Ann Cohen

ADDRESS: PO Box 237, Rodanthe, NC 27968

E-MAIL: none

COMMENTS AND/OR QUESTIONS:

After attending the workshop in December, elevated roadways and the bridge going over the Pamlico Sound seems like the most logical way of preserving Rt 12 passage way off Hatteras Island. The bridge would be the least disruption for those home and business owners that live on Route 12.

Thank you and good luck
Mary Ann Cohen

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: April Contestable

ADDRESS: POB 88 SALVO NC 27972

E-MAIL: aprilisin@gmail.com

COMMENTS AND/OR QUESTIONS:

① Ultimately, a long bridge would be most efficient and it should be lined with windmills (like Jeanette's Pier) and have platforms for recreational fishing. ② The entrance to Rodanthe could "possibly" benefit from beach renourishment ~~but~~ and if this is the best COST Alternative, it would be worth a try. However, direct ingress to "historical Rodanthe" is a GREAT option. ③ Pea Island breech would most benefit from the plan with the most bridge 'ala' Fla. Keys.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Thank you for hearing & considering these comments. I have lived here and observed shifting sand patterns since 1989.

Smyre, Elizabeth A

From: Abbott, Steve
Sent: Thursday, December 15, 2011 2:23 PM
To: Smyre, Elizabeth A
Subject: NC 12

Comment Details

From: Mariner and Donna Cox **Phone:** (540)659-8590 **Email:** marinercox@comcast.net

Print

Comment History
Tracking Number: 573CRW4UEE

Sent By: Mariner and Donna Cox **Date/Time:** 12/15/2011 1:12 PM
Comment:
WE own a home on Bluefish Ct in Hatteras Colony, Avon, NC. As Outer Banks property owners we strongly support Beach nourishment as the option of choice for long-term Route 12 recovery. We believe that this option offers the logical, cost-effective method of returning Route 12 to its pre-Irene condition and along with the already selected Bonner Bridge replacement option, is in the best interests of the Owners and residents of the Outer Banks, and all residents of the State of North Carolina. Further, we believe that this option adequately addresses the concerns of the various environmental groups.

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Smyre, Elizabeth A

From: Dave Dawson <dawbiz@yahoo.com>
Sent: Sunday, January 22, 2012 9:14 PM
To: Smyre, Elizabeth A
Subject: Long term fix for Route 12 Hatteras Island

Beth Smyre,

I will be brief. The answer to saving our highway is to stabilize the beach. Bridges and constantly moving the road are all temporary fixes at best.Pumping sand to stabilize the beach is also temporary. North Carolina needs to change the law against using hardened structures to stabilize the beach. This was an antiquated tactic the envioronmental community used in order to control building density through the back door instead of local zoning. We have been asking the State to "sink a ship" for 40 years. This means use a ship, barge or rocks to build a breakwater, jetty, groin or whatever it takes to slow down the current and let our beach build up. Every time a ship washes close to the shore the beach builds out to it in a matter of days. We've seen it over and over again. This is a simple and less expensive solution and anyone who says it won't work is lying. Look what the Arabs have built in Dubai. I'm not advocating building cities in the ocean; only that the technology is there to fix our problems and to not do so is neglectful on the part of the State. Not only will the State not help us, they won't give us a permit to help ourselves(except for the millionaires who got a variance to build groins at Bald Head to protect their golf course-the groins worked by the way).It's time for North Carolina to protect all of it's citizens and visitors by taking care of the coastline. Can you imagine any other coastal state ignoring their coast the way this State has? Business here actually survived the recession fairly well except for the times when people can't get here because our road is out(again!).

Dave Dawson - Buxton NC

Smyre, Elizabeth A

From: Greg & Janet Duncan <gregjanetcamden@yahoo.com>
Sent: Monday, December 12, 2011 9:07 PM
To: Smyre, Elizabeth A
Subject: NC-12 and Bonner Bridge

Ms. Beth Smyre,

I live in Camden Co. on the water. I've been here for 35 yrs, I'm concerned with both the cost of maintaining NC12 and that the ferry system wasn't publicly offered/considered as an alt. way of providing access to the areas South of Oregon Inlet. During Irene the water level in the Pasquotank dropped 12 inches. This is not normal for a storm with winds from the NE. Water usually recedes 3-4 feet. That was a large impoundment of water in the Albermarle Sound. We saw the damage on the backside of the OBX. My concern is with larger dunes to protect NC12 the water surge will not be able to retreat to sea fast enough to stop flooding up the Albermarle's northern rivers as the storms past. I understand tourism, Fishing, hometown feelings and other issues But with the rising sea level for the next 50 years, even as small as NC-20 calls for, the economy, the narrowness of Pea Is. I think people are not looking at the whole issue. I would like to see the ferry system fully explored. Most of the towns would change, adapt, and survive to become great places to visit just as Ocracoke has. I have lots of memories of Jockeys ridge, Oregon Inlet, Hatteras, the beaches south to South Carolina over my life, 23 years in the Coast Guard flying and boating along the coast. All the "Sights" have changed looks and locations greatly in that time fixed bridges and roads don't stand a chance.

Thank you for your time, Merry Christmas.

Greg Duncan

Smyre, Elizabeth A

From: Bob <808bob.finch@gmail.com>
Sent: Friday, January 06, 2012 4:28 PM
To: Smyre, Elizabeth A
Subject: Pea Island access

Future highway plans must include access for surfing one of America's treasures--the Hatteras surf sites. I am a long time NC resident now living in Hawaii. But I always return to these breaks when back east. Unquestionably, surfers have a huge impact on the economy of the Outer Banks. Thanks for the opportunity to comment.

Bob Finch,
P. O. Box 1873
Kailua, HI. 96734

I'm a twentieth century man and I don't want to be one with an iPhone

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: DAVID L. FRUM

ADDRESS: P.O. BOX 280/42 SARAH ELLEN LANE, OCRACOKE, NC 27960

E-MAIL: davefrum@hotmail.com.

COMMENTS AND/OR QUESTIONS:

I BELIEVE THE BEST SOLUTION TO THE ENTIRE BONNER BRIDGE/HIGHWAY IN DILEMMA IS TO TAKE THE POSITION THAT IT WILL BE TOO COSTLY AND NOT POSSIBLE TO MAINTAIN THE NEW BRIDGE AND THE ROAD IN THEIR PRESENT LOCATIONS. ALL THE COASTAL GEOLOGISTS, AND ANYONE WHO HAS BEEN HERE MORE THAN A WEEKEND KNOW THAT STRIP OF BARRIER ISLAND FROM OREGON INLET TO RODANTHE IS VERY DYNAMIC AND SUBJECT TO THE WORST CONDITIONS DUE TO IT PERPENDICULAR ORIENTATION TO NORTHEAST WINDS. I WOULD BE SURPRISED IF THE PROJECT PROPOSED COULD EVER BE COMPLETED THROUGH PEA ISLAND. THE NARROWEST OF THE ISLAND AND THE EROSION THAT HAVE TAKEN THE BEACHES MEAN THE BIGGEST PROBLEMS WILL OCCUR FROM THIS POINT ON.

Comments may be mailed by January 20, 2012 to:

(CONTINUED ON NEXT PAGE)

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

I WOULD LIKE TO PROPOSE THAT THE DOT AND ENGINEERING FIRMS TAKE THE POSITION THE NATIONAL PARK SERVICE TOOK WITH THE CAPE HATTERAS LIGHTHOUSE. AFTER YEARS OF TRYING TO STOP NATURE AND TRYING TO MANIPULATE THE SHORELINE RELATED TO A PERMANENT STRUCTURE, THEY GAVE UP AND MOVED IT. I THINK THIS IS THE POSITION THAT SHOULD BE TAKEN WITH HIGHWAY 12.

I PROPOSE THAT ENGINEERING BE APPLIED TO CONSTRUCTING A BRIDGE TO THE WEST OF THE BARRIER ISLANDS FROM JUST NORTH OF RODANTHE. THE BEST SOLUTION, IN MY OPINION, WOULD BE TO BUILD THE ROAD EITHER TO THE SOUTH END OF ROANOKE ISLAND, EAST OF WANCHESE AND CONNECTED TO US 64 AT SKYCO OR WEST ACROSS THE SOUND TO NEAR STUMPY POINT OR SANDY BAY. I FEEL THIS BRIDGE, THOUGH VERY COSTLY IN ORIGINAL CONSTRUCTION, COULD BE MORE EASILY MAINTAINED AND WOULD BE LESS VULNERABLE TO WAVE ACTION. IT WOULD BE IN THE SOUND RATHER THAN ON THE BEACH FACE.

SHOULD THIS PLAN BE PUT INTO EFFECT, OREGON INLET BRIDGE WOULD NOT HAVE TO BE BUILT, THE ROAD COULD BE ABANDONED ACROSS THE PRESENT BRIDGE AND IT COULD BE REMOVED AFTER CONSTRUCTION. OREGON INLET COULD BE ALLOWED TO DEVELOP WHEREVER IT DOES BECAUSE IT WOULD NOT HAVE TO BE MAINTAINED IN PLACE BENEATH THE HIGH RISE OF THE BRIDGE. THE CHANNEL COULD BE WHEREVER IT FALLS ELIMINATING THE ENTIRE PROBLEM OF KEEPING OREGON INLET WHERE NATURE DOES NOT WANT IT TO BE, ELIMINATING THE NEED FOR JETTIES OR DREDGING.

HIGHWAY 12 THROUGH THE PEA ISLAND REFUGE COULD BE ABANDONED PLEASING THE U.S. FISH AND WILDLIFE SERVICE WHO DOESN'T WANT IT THERE ANYWAY. THE ISLAND IN THAT SECTION WOULD RAPIDLY REVERT TO A NATURAL SYSTEM, DUNES COULD DEVELOP WHEREVER THEY MAY, THE BEACHES WOULD WIDEN AND OVERWASH WOULD OCCUR BUT IT WOULD NOT MATTER SINCE THERE WOULD BE NO ROAD TO MAINTAIN. THE TEMPORARY BRIDGE AT THE NEW NEW INLET WOULD BE UNNECESSARY AGAIN BECAUSE THERE WOULD BE NO ROAD.

PLEASE CONSIDER THESE RECOMMENDATIONS CAREFULLY. THINK OF THE HUNDREDS OF MILLIONS OF DOLLARS IT WILL TAKE TO MAINTAIN THE ROAD THROUGH A PLACE IT PROBABLY CANNOT RELIABLY BE DEPENDED ON TO STAY. A ROAD ACROSS THE SOUND WEST OF THE BARRIER WILL REQUIRE MUCH SIMPLER CONSTRUCTION AND WOULD HAVE REASONABLE ASSURANCE REMAINING FOR YEARS TO COME.

David L Shum

Smyre, Elizabeth A

From: Herbert Gaskill <hsgaskill@mun.ca>
Sent: Thursday, December 15, 2011 9:32 AM
To: Smyre, Elizabeth A
Subject: Bonner Bridge

Dear Ms Smyre -

My wife and I are local home owners, 26248 Wimble Shores Dr. We live in our NC home during the winter; at other times it is a rental.

Almost every year since 2003, we have had a major washout at S-curves requiring major repairs to the roadbed. Every year there have been periods during which Hwy 12 was closed due to overwash. Every year we watch as hundreds of tons of sand are trucked in to S-curves (beach nourishment), only to be washed away in an instant by the forces of nature. We have seen Hwy 12 closed for as long as a week due to wash out at S-curves from a Nor'easter.

We have examined the proposals for HWY 12. We believe that only proposals which guarantee continuous access are viable. Clearly, proposals that require "beach nourishment" are not in this category. We believe that a solution should be implemented ASAP. This rules out proposals that could become subject to law suits, i.e., proposals that place the roadbed outside existing easements.
On this basis we support the proposal described as "Bridge within Existing NC 12 Easement" shown in purple in Figure 3 of "Bonner Bridge Public Workshops" document handed out on Tues, Dec. 6 at the meeting in Rodanthe.

Thank you,

Herb and Cathy Gaskill

Herbert S Gaskill,
Professor, retired

15 Forest Ave
Mt Pearl, NL A1N 1P2
709-368-5218

PO Box 477
Rodanthe, NC
252-987-2298

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http://www.mun.ca/cc/policies/electronic_communications_disclaimer_2011.php

Smyre, Elizabeth A

From: Rob Gerritsen <rob@xore.com>
Sent: Wednesday, December 14, 2011 2:40 PM
To: Smyre, Elizabeth A
Cc: Scott Leggat
Subject: NC 12 Recovery Efforts

Dear Ms. Smyre,
Thank you very much for the Meeting Packet related to the Bonner Bridge – Phase II Workshops. It is a comprehensive and informative document.

I have a question and a comment.

My question regards the costs in Table 3. The language used implies that these are simple total expenditures through 2060. Does that mean that you did not use a discount rate to reflect the so-called time value of money? Since some alternatives require spending most of the money up front, and others do not, I suspect that using an appropriate discount rate might make a significant difference in the comparative costs.

My own preference is the beach nourishment option. It has a very low visual impact and a very low impact on existing residences and businesses.

Because beach nourishment expends money gradually over time, it also has a lower opportunity cost than any of the other alternatives. If any of the other alternatives end up having unforeseen negative effects or don't work as well as expected, we will only discover that after having spent a very large amount. If it turns out that beach nourishment has some unexpected negative effects, it can be terminated and other options considered before extremely large sums have already been expended. Because it has these lower opportunity costs it is a less riskier alternative.

I have been an owner of an ocean front property in Avon since 1990.

Regards,
-Rob

Rob Gerritsen, PhD
President
Exclusive Ore Inc.
www.xore.com
PO Box 1024
Blue Bell, PA 19422

(215) 643-3110

Smyre, Elizabeth A

From: Gery, Michael <michael.gery@carolinacountry.com>
Sent: Thursday, January 19, 2012 1:54 PM
To: Smyre, Elizabeth A
Subject: NC Hwy 12

These are my comments on the proposals to rebuild NC Hwy 12 on Pea Island.

All of these proposals are far riskier and more expensive than the sensible alternative which was – without explanation – excluded from the winter presentations in Dare County and Ocracoke: the so-called "long bridge" that would connect to Rodanthe. The long bridge was the preferred alternative in 2003 when nearly all agencies involved saw its wisdom. To build a series of bridges and causeways on a moving strip of sand, and through a national wildlife, not only will subject the refuge and its beaches to being a construction zone for years, but also is asking for a long future of frustration and expense, and exposes taxpayers to unneeded expense in court. I ask the DOT to abandon these alternatives as presented this winter in workshops I attended, and to instead reconsider the long bridge. People will be able to reach Pea Island without a dangerous bridge and doomed highway, just as we reach Core Banks, Portsmouth Island, Ocracoke, Shackleford Banks, Bald Head Island, Hammocks Beach and other barrier islands.

****
Michael E.C. Gery
104 Seatone Lane
Manteo, NC 27954

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: Harry Gilbert

ADDRESS: P.O. Box 850, Ocracoke, NC 27960

E-MAIL: info@theanchorageinn.com

COMMENTS AND/OR QUESTIONS:

I would prefer the "Bridge on New Location" at both locations. If not "Road on New Location" if above is not possible.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Hyde ~~Dare~~ County

NAME: H.W. Gilbert III

ADDRESS: P.O. Box 850, Ocracoke, NC 27960

E-MAIL: info@theanchorageinn.com

COMMENTS AND/OR QUESTIONS:

I previously made a comment at the Rodanthe workshop and, after further review and a better understanding of the permitting process I would like to change my comment. At Pea Island I would like to see a "Bridge within Existing NC12 Easement" mainly due to permitting issues. At the Rodanthe area I would like to see "Bridge on New Location" due to the fact that ~~the~~ this area has always been a problem area. ~~because~~ because of the rapid beach erosion.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: Leslie Gilbert

ADDRESS: PO Box 850 Ocracoke NC 27960

E-MAIL: info@theanchorageinn.com

COMMENTS AND/OR QUESTIONS:

Prefer Bridges on New locations → which would be more permanent.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Smyre, Elizabeth A

From: Abbott, Steve
Sent: Thursday, December 15, 2011 11:00 AM
To: Smyre, Elizabeth A
Subject: Another NC 12 from Contact us

Suzan (Mrs. James E.) Griffin **Phone:** (757)229-5235 **Email:** sjgriffin@widomaker.com

Print

Comment History
Tracking Number: 87WEN3LN24

Sent By: Suzan (Mrs. James E.) Griffin **Date/Time:** 12/14/2011 6:47 PM
Comment:
I am writing to ask you to support beach nourishment for the Outer Banks (especially to aid Highway 12). We are owners of property there and we implore you to find a solution to transportation and erosion issues on our beautiful Outer Banks. This is as close as you can get to heaven and we ask that you find a solution to the many issues facing the area in regard to transportation. Thank you for your consdieration and hard work. I will anxiously await news of your meetings and look for outstanding conclusions from your group. Nobody does it better than NC...please live up to that belief.

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Smyre, Elizabeth A

From: Abbott, Steve
Sent: Thursday, December 15, 2011 2:25 PM
To: Smyre, Elizabeth A
Subject: NC 12

By the way, I'm already responding to these in Contact Us, just saying, "Thank you for the comments. They are being forwarded to the DOT staff working on the project."

Steve

From: Raymond C.Grimm **Phone:** (540)635-2404 **Email:** rgrimm@shentel.net

Comment History
Tracking Number: PAG55C9RWI

Sent By: Raymond C.Grimm **Date/Time:** 12/15/2011 11:50 AM
Comment:
I am a Dare county OBX property owner since 1980. My wife and I own and rent several homes in Mirlo, and an ocean front on East Point Drive. We have watched homes disappear in front of the oceanfront. As a matter of fact, we were third lot back when we first built our cottage. Beach nourishment would have saved many of these homes, and I urge your consideration of this option for the Rodanthe area and the homes in Mirlo Beach.
Regards,
Ray and Lani Grimm, Front Royal, VA

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Norburn, Robert E.

From: Norburn, Robert E.
Sent: Friday, December 09, 2011 11:20 AM
To: Smyre, Elizabeth A
Subject: Bonner Citizen Contact

I received an information line call from Mark Haines, who is a Rodanthe property owner. He was concerned about the long-term options at Rodanthe. He said he favors either beach nourishment, or the bridge in existing easement with beach nourishment, because these are the only options that will protect the homes in northern Rodanthe from long-term beach erosion. He said that he also attended the workshops and plans on submitting written comments, which I encouraged him to do so. He also asked about the project schedule, which I explained to him. He is already on the project mailing list.

Bobby Norburn
Transportation Engineer/Planner
Parsons Brinckerhoff
434 Fayetteville Street, Suite 1500
Raleigh, NC 27601
919-836-4081 (office)
919-836-4099 (fax)

norburn@pbworld.com

www.pbworld.com

Smyre, Elizabeth A

From: Haines, Mark <mark.haines@transcendata.com>
Sent: Sunday, December 11, 2011 10:33 PM
To: Smyre, Elizabeth A
Cc: Haines, Mark
Subject: Bonner Bridge Replacement Project Phase II Public Workshop Comment Sheet
Attachments: NC 12 Feedback.pdf

Hi Beth!

Attached you will find my feedback regarding the Bonner Bridge Replacement Project Phase II. I would appreciate it if you can confirm receipt of my email and attached comment sheet.

If you have any issues opening the attachment, please let me know.

Thanks,

Mark Haines
513-604-6641

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

Name: **Mark Haines**
Address: **3087 Palomino Trail, Mason OH 45040**
E-mail: meh@iti-global.com

Comments and/or Questions:

My name is Mark Haines. I am a part time resident and rental property owner on Hatteras Island. I attended both the Manteo and Rodanthe workshops. Like everyone else involved, I have concerns about the solution that will be chosen. I submitted initial comments, but since the merger team has decided to eliminate both options which include beach nourishment, I am submitting additional feedback.

Trying to keep this to the point and short, here is my feedback associated with the Rodanthe S-Curves area.

1. Reconsider beach nourishment. It needs to be done regardless.
2. Solve the issue within the current easement.
3. Consider ending the bridge / elevated roadway in Mirlo Beach. This minimizes impact to current property owners which should be a very high consideration. Extending South on 12 can be done in the future when and if necessary. It also eliminates the congestion around the Liberty Gas station with the current option.
4. If you feel the need for the "Rodanthe Bridge on New Location", connect back onto 12 prior to any houses to avoid all of the issues associated with current property owners, along with what I would expect to be a long and lengthy legal battle.
5. Allow public comments on the final recommendation and decision on what to do. This will allow the public to provide specific feedback such as:
    a. Include a bikeway or walking path along the new road or bridge
    b. Input on access points crossing 12 to the ocean
    c. Cosmetic features which might minimize the eye soar any new bridge or elevated roadway might cause.
    d. Create an elevated section on a possible bridge to allow recreational access to the open sound.
6. Communicate with those in the immediate area (Northern Rodanthe) that you are serious about implementing a solution which minimizes the impact to their property values. Eliminating beach nourishment sent the wrong message.

Smyre, Elizabeth A

From: Haines, Mark <mark.haines@transcendata.com>
Sent: Thursday, January 19, 2012 12:07 PM
To: Smyre, Elizabeth A
Cc: Haines, Mark
Subject: Bonner Bridge Replacement Project Phase II Public Workshop Comment Sheet
Attachments: NC 12 Feedback 1-19-2012.pdf

Hi Beth!

Attached you will find additional feedback regarding the Bonner Bridge Replacement Project Phase II. I would appreciate it if you can confirm receipt of my email and attached comment sheet.

If you have any issues opening the attachment, please let me know.

Thanks,

Mark Haines
513-604-6641

Mark Haines
ITI TranscenData
513.604.6641
meh@iti-global.com

Visit our New Website: http://www.transcendata.com

Smyre, Elizabeth A

From: Ted Hamilton <tedsalvo@earthlink.net>
Sent: Thursday, January 12, 2012 7:11 AM
To: Smyre, Elizabeth A; norburn@ncdot.gov
Subject: Comments on Proposed NC 12 Improvements

The following are my comments on NC 12 proposed solutions in the Pea Island area.

1. Many of us have never seen a really definitive reason why NCDOT now has trouble getting permits from USFWS to move the road from its current right of way. In 1988 the road was relocated well to the West of the then right of way in the S-Curve area. Again in 1996 the same type of relocation occurred in the Sand Bag area.

What has changed to make this type of movement more difficult if not impossible????

It is one thing if it has resulted from new law but a whole different matter if it is just new DOI and/or USFWS policy. If the latter, that should be seriously challenged by the state in order to provide the best long term solution for a given area of the route. I have even seen articles indicating deeds exist that give the state basically right of way where ever it is needed, although some environmental groups disagree.

The public should be informed definitively as to the reason for this right of way difficulty, because common sense says that in general the farther West (away from the surf zone) the road is located, the better the long term survival.

2. Any solution should carefully consider the impact on electric rates to relocate power lines in order to provide reliable maintenance access. In 2007 CHEC estimated that an approximate 42% rate increase would be required to fund the relocation of the line on or near the then proposed 17 mile bridge that bypassed Pea Island. No doubt a similar increase would be needed if the now USFWS proposed 7 mile long bridge was to be built. I say similar increase because the increase would not be directly proportional to bridge length because design, environmental impact studies, etc would be similar in cost regardless of bridge length.

3. Any solution should carefully consider the impact on public access to areas of Pea Island. When the 17 mile bridge was first proposed NCDOT indicated they would obviously not maintain any sort of road on Pea Island. USFWS indicated they certainly would not maintain any sort of paved access and further indicated they would likely require the pavement be removed. In addition USFWS indicated that individual access by private vehicles would likely not be allowed, but would most likely go with a 4WD bus system similar to that used at Back Bay in VA.

Such access limitations as above would be unacceptable. At a minimum private vehicle access by at least 4WD vehicles on sand roads similar to the Interdunal Road near Cape Point and Pole Road at Hatteras Inlet should be provided for.

Now that said let me be clear in my expectations. If, for example, the 7 mile bridge proposed by USFWS is built, I would expect to see a sand road from the North end of Rodanthe to the South side of the new Pea Island Inlet and a sand road from the North terminus area of the bridge to the North side of the new Pea Island Inlet. But if, for example, an inlet was eventually formed at the S-Curve area, or any other area, I would not expect any bridging or fill of such an inlet to accommodate a sand road. We should at least start with reasonable sand road access and let new inlets dictate what access remains over time. Such access should be agreed to by USFWS as part of this process and factored into the road improvement decisions. It should not be left undecided and for USFWS to decide in the future as they indicated during discussions on the 17 mile bridge.

4. Any bridge / raised roadway solutions should carefully look at what wind restrictions may be needed and their impact on travel / access. I refer you to wind restrictions on the Chesapeake Bay Bridge Tunnel as examples of a similarly exposed roadway that is purposely not used as an evacuation route because of the wind restrictions.

Now having said all the above, I think the following are the best compromise solutions that would address my 4 concerns.

For Pea Island Breach:

Bridge on new location. This requires only a short section of new right of way, moves the road further from the surf zone (beyond the 2060 erosion zone) in the area of the breach (particularly to the South as inlets tend to migrate South; eg. Oregon Inlet), places it on a bridge so the current inlet can be left for sound water outflow relief from potential sound flooding and provides better interconnect to the North if the conceptual road / bridge (or portions thereof) ever need to be built to the North.

And any improvement should consider access to the boat ramp at New Inlet. We should not loose access to this boat ramp.

For Rodanthe Breach:

Bridge in Pamlico Sound. It seem foolish to build anything within the current easement, knowing it will soon be in the surf zone; (ie the easement is within the 2060 erosion zone) . The history of this area includes Loggerhead Inlet in this general location and sooner, rather than later, this area will be breached badly. When it is badly breached, it would obviously be better that any bridging in the area was not eventually in the surf zone.

Ted A. Hamilton
6 Jib Ct
Hampton VA 23664

Property owner in Salvo NC for 40 years

Cheers Ya'll

Ted A. Hamilton
(aka Salvo Jimmy)

Smyre, Elizabeth A

From: Ted Hamilton <tedsalvo@earthlink.net>
Sent: Tuesday, January 17, 2012 6:20 AM
To: Smyre, Elizabeth A
Subject: RE: Comments on Proposed NC 12 Improvements

Two other comments came to mind similar to comments on electric power supply.

I recall Charter has for years wanted a fiber optic system on Hatteras Island but has been prohibited from putting a cable on the present Bonner Bridge because of weight considerations. I believe they will be allowed to use the replacement bridge. Any solution should consider how such a fiber optic system would be accomodated, including access for maintenance.

Likewise, CenturyLink phones are underground, at least within the villages. I don't know if underground cables are used on Pea Island, but if so, that needs to be accomodated. In addition consideration of providing for upgrade to the phone system to fiber optic should be included in any solution.

-----Original Message-----
>From: Ted Hamilton <tedsalvo@earthlink.net>
>Sent: Jan 14, 2012 12:39 PM
>To: "Smyre,Elizabeth A" <bsmyre@ncdot.gov>
>Subject: RE: Comments on Proposed NC 12 Improvements
>
>Thanks for the reply.
>
>Re the 1997 law and USFWS: I recall that law is fairly general and not real specific thus making it open to wide interpretation which is what I think DOI / USFWS is doing in this case. It's hard for me to imagine that where releiable access is needed for the health, welfare and safety of residents and visitors, particularly during medical emergencies and storm events requiring evacuation, that such need would not trump even the letter of this 1997 law. It makes no sense to expenf funds staying strictly within the present right of way knowing that in a relatively short time the road would be in peril.
>
>BTW you did not address the issue of these "old" deeds supposedly giving the state access as needed without regard to "present" right of way. That, if true, would also seem to trump even this 1997 law.
>
>
>-----Original Message-----
>>From: "Smyre, Elizabeth A" <bsmyre@ncdot.gov>
>>Sent: Jan 13, 2012 11:02 AM
>>To: Ted Hamilton <tedsalvo@earthlink.net>
>>Subject: RE: Comments on Proposed NC 12 Improvements
>>
>>Ted-
>>Thank you for your comments! To answer some of the questions included in your email:
>>
>>- In 1997, Congress passed the National Wildlife Refuge System Improvement Act of 1997, which is an update of a similar law from the 1960's. This law stipulates how the US Fish & Wildlife Service makes decisions on activities within the Refuge system. The 1997 Act restricted what activities the USFWS could consider allowing within a Refuge;

essentially, any activity must now be consistent with the mission and purpose of that Refuge. New large-scale road and bridge construction outside of the existing NC 12 easement, as you can imagine, aren't necessarily consistent with the mission of a wildlife refuge, so we've been told that they would not be allowed. Therefore, road relocations that were allowed prior to 1997 wouldn't be allowed today. We've discussed this act and its implications to our project alternatives in our previous environmental documents for the project.
>>
>>- We work closely with the Cape Hatteras Electric Co. on determining the potential impacts of our alternatives on their utility easements. We provide them with copies of all our environmental documents, and any information they provide us on potential rate increases is considered as part of the overall decision.
>>
>>- We do consider the impacts of our alternatives on the ability to access the Refuge and the Seashore. Certainly, any bridging option at either of the breach sites will restrict access to the Refuge in those locations.
>>
>>Again, thank you for your comments, and please let me know if you have any other comments or questions!
>>Thanks,
>>Beth
>>
>>----------
>>Beth Smyre, P.E.
>>Project Planning Engineer
>>NC Department of Transportation
>>Project Development & Environmental Analysis Unit
>>1548 Mail Service Center
>>Raleigh, NC 27699-1548
>>(919) 707-6043
>>
>>
>>-----Original Message-----
>>From: Ted Hamilton [mailto:tedsalvo@earthlink.net]
>>Sent: Thursday, January 12, 2012 7:11 AM
>>To: Smyre, Elizabeth A; norburn@ncdot.gov
>>Subject: Comments on Proposed NC 12 Improvements
>>
>>The following are my comments on NC 12 proposed solutions in the Pea Island area.
>>
>>1. Many of us have never seen a really definitive reason why NCDOT now has trouble getting permits from USFWS to move the road from its current right of way. In 1988 the road was relocated well to the West of the then right of way in the S-Curve area. Again in 1996 the same type of relocation occurred in the Sand Bag area.
>>
>>What has changed to make this type of movement more difficult if not impossible????
>>
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Smyre, Elizabeth A

From: Abbott, Steve
Sent: Wednesday, December 14, 2011 4:46 PM
To: Smyre, Elizabeth A
Subject: NC 12 comment

Hi,

Here is one from Contact Us

Steve

Tim sorrells **Phone:** (443)789-9176 **Email:** drsorrells@yahoo.com

Print

Comment History
Tracking Number: 50VJSMBQUY

Sent By: Tim sorrells **Date/Time:** 12/14/2011 4:37 PM
Comment:
I am in support of beach nourishment as a potential solution to the problem in Mirlo Beach and Rte 12. I favor this over the construction of bridges . I feel we should try nourishment first and if ut becomes obvious that is is not working, then talk about bridge alternatives. I own a house in Waves,NC so I obviously have a personal investment here. Thank you, Tim Sorrells

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increase would be needed if the now USFWS proposed 7 mile long bridge was to be built. I say similar increase because the increase would not be directly proportional to bridge length because design, environmental impact studies, etc would be similar in cost regardless of bridge length.
>>
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>>Such access limitations as above would be unacceptable. At a minimum private vehicle access by at least 4WD vehicles on sand roads similar to the Interdunal Road near Cape Point and Pole Road at Hatteras Inlet should be provided for.
>>
>>Now that said let me be clear in my expectations. If, for example, the 7 mile bridge proposed by USFWS is built, I would expect to see a sand road from the North end of Rodanthe to the South side of the new Pea Island Inlet and a sand road from the North terminus area of the bridge to the North side of the new Pea Island Inlet. But if, for example, an inlet was eventually formed at the S-Curve area, or any other area, I would not expect any bridging or fill of such an inlet to accommodate a sand road. We should at least start with reasonable sand road access and let new inlets dictate what access remains over time. Such access should be agreed to by USFWS as part of this process and factored into the road improvement decisions. It should not be left undecided and for USFWS to decide in the future as they indicated during discussions on the 17 mile bridge.
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>>
>>
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>>
>>For Pea Island Breach:
>>
>>Bridge on new location. This requires only a short section of new right of way, moves the road further from the surf zone (beyond the 2060 erosion zone) in the area of the breach (particularly to the South as inlets tend to migrate South; eg. Oregon Inlet), places it on a bridge so the current inlet can be left for sound water outflow relief from potential sound flooding and provides better interconnect to the North if the conceptual road / bridge (or portions thereof) ever need to be built to the North.
>>
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>>
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>>
>>Ted A. Hamilton
>>6 Jib Ct
>>Hampton VA 23664

>>
>>Property owner in Salvo NC for 40 years
>>
>>
>>
>>
>>Cheers Ya'll
>>
>>Ted A. Hamilton
>>(aka Salvo Jimmy)
>>
>>_____
>>
>>Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.
>
>
>Cheers Ya'll
>
>Ted A. Hamilton
>(aka Salvo Jimmy)

Cheers Ya'll

Ted A. Hamilton
(aka Salvo Jimmy)

Smyre, Elizabeth A

From: Haug <haug@astound.net>
Sent: Wednesday, December 14, 2011 12:32 PM
To: Smyre, Elizabeth A
Subject: Hwy 12 - Outer Banks

I strongly support the beach nurishment options to create a stable corridor for the road.
Karl and Billi Haug
Owners
Sandbox at Salvo

Smyre, Elizabeth A

From: Bluesadvice@aol.com
Sent: Friday, December 09, 2011 11:49 AM
To: Smyre, Elizabeth A
Subject: Rodanthe road options

Dear Ms. Smyre,

This letter is for the purpose of asking NCDOT to proceed with the beach nourishment option for Highway 12 into Rodanthe. The bridge options, particularly the bridge in the sound, would harm the idyllic atmosphere of Mirlo Beach and the surrounding area. My second choice would be the shorter bridge into Rodanthe along with the beach nourishment option.

The other bridge options are too disruptive to the area, too expensive, and would leave Rodanthe open to further erosion and loss of property value.

Nancy Hawkins

Norburn, Robert E.

From: Smyre, Elizabeth A [bsmyre@ncdot.gov]
Sent: Monday, January 23, 2012 8:57 AM
To: randy hirscher; Norburn, Robert E.
Cc: Office of the Governor; governor.office@governor.ncmail.net; LT. Governor
Subject: RE: Mirlo Beach/Hwy 12 Breach Fix Options

Randy, Julie-
Thank you for your comments on the NC 12 projects. Every comment that NCDOT receives will be carefully considered as the planning process for the projects moves forward. If you have any further comments or questions, please feel free to contact me.
Thanks,
Beth

Beth Smyre, P.E.
Project Planning Engineer
NC Department of Transportation
Project Development & Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548
(919) 707-6043

From: randy hirscher [mailto:rhirscher@yahoo.com]
Sent: Friday, January 20, 2012 6:26 PM
To: Smyre, Elizabeth A; norburn@pbworld.com
Cc: Office of the Governor; governor.office@governor.ncmail.net; LT. Governor
Subject: Mirlo Beach/Hwy 12 Breach Fix Options

Ms. Smyre and Mr. Norburn:

I wanted to take the opportunity to contact you to provide my input to the Mirlo Beach Breach Fix Options that are under consideration and which NC DOT and the Office of the Governor will be making a decision about shortly. As one of the ocean front home owners in Mirlo Beach who is directly experiencing the effects of the overwash and erosion that is regularly occuring, and whose property will be directly impacted by any decision that is made on the breach fix option, I am dismayed to hear that beach nourishment option has been eliminated--right from the start--from serious consideration as a viable option to restore the highway while preserving the natural beauty that Hatteras Island is known for around the world. Any of the bridge options that might be chosen, besides being a more costly long-term option and contradicting the natural essence of the Island, will essentially commit our community (Mirlo Beach), including our house, to the sea. The Army Corps of Engineers built an engineering marvel that would stand any test of time when it built the dunes that line the island...that is, until the groin was set up at Oregon Inlet which shut off the natural flow of sand up and down the island. I would ask that NC DOT seriously reconsider the beach nourishment option -- one that is established and maintained like the Army Corp set up. NC DOT has a constant long-term source of sand that is being dredged at Oregon Inlet to maintain any beach nourishment option.

Thank you for you consideration of our comments!

Many best regards,

Randy and Julie Hirscher
22009 Sea Gull Street
Rodanthe, NC 27968

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: MR + MRS Robert Horning

ADDRESS: Po Box 132 OCRACOKE NC 27960

E-MAIL:

COMMENTS AND/OR QUESTIONS:

We strongly recommend building the long bridge - makes absolutely no sense to rebuild the bridge so close to the inlet - Building across the sound where it would be more protected and the road would be more secure seems to be the most logical and sane way to go

Sincerely
Mr & Mrs R Horning

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Smyre, Elizabeth A

From: Ben Hutchinson <ben.hutchinson@gmail.com>
Sent: Wednesday, December 14, 2011 11:18 PM
To: Smyre, Elizabeth A
Subject: Beach Nourishment Plan

Dear Ms. Smyre,

I am writing you this email to express my support for consideration of the beach nourishment plan in Hatteras Island. I understand that you are meeting about this issue tomorrow, and I would like to add my voice to any others there might be in support of assessing the feasibility of the plan. My family has been coming to the Outer Banks for several decades now, and not only have we regularly supported the rentals-based economy and local businesses there, but we also own property in Rodanthe and are invested heavily in its future. From my understanding of the various proposals, the nourishment plan seems to be well worth considering given its relatively low cost and non-intrusive nature. I hope that you ultimately choose what is best for Rodanthe, and I believe that course of action to include at least looking into the nourishment plan. Many thanks for your time.

Best,
Ben Hutchinson

Smyre, Elizabeth A

From: Beth Hutchinson <beth.b.hutchinson@gmail.com>
Sent: Wednesday, December 14, 2011 11:57 AM
To: Smyre, Elizabeth A
Subject: Mirlo beach nourishment

Dear Ms. Beth Smyre,

Although I do not currently live in North Carolina, I've been vacationing in the Outer Banks for most of my life. I visit at least twice a year, I was married at Bodie Island lighthouse and I consider our family vacation home in Mirlo Beach my second home.

I realize that you will be meeting with other representatives tomorrow as part of a merger team to discuss action regarding solutions for the erosion and transportation issues affecting highway 12 near Mirlo Beach. **I hope you will strongly consider beach nourishment as a solution**. This approach has the potential to preserve the natural beauty of this special place in a *cost-effective, forward-thinking and sensible* way.

Thank you for your time.

Sincerely,
Beth Hutchinson

Smyre, Elizabeth A

From: Hutchinson, Wes <jwhutch@wharton.upenn.edu>
Sent: Tuesday, December 13, 2011 2:09 PM
To: Smyre, Elizabeth A
Cc: Baker, Sterling D; Capehart, Bob; Nance, Jon G; Bouchelle, Tammy; Roseann Verrecchio; mike_bryant@fws.gov; Scott_lanier@fws.gov; dennis_stewart@fws.gov; Office of the Governor
Subject: NC12 in Mirlo Beach - Comments for the Dec 15 meeting of the Bonner Bridge Merger Team
Attachments: MirloBeachErosionOpinion-CSE-1Nov2011.pdf

Beth,

https://sites.google.com/site/mirlobeachnc/home

The above URL links to a website we have developed to inform the general public and specific stakeholders about the opinions of the Mirlo Beach Home Owners Association (MBHOA) regarding the beach nourishment design option for the Rodanthe part of Phase 2. **WE STRONGLY FEEL THE NOURISHMENT OPTION MERITS FURTHER STUDY.** Unless you know exactly where the sand is (and isn't), we cannot see how you can make an informed final decision that is in the best interests of the citizens of the State of North Carolina and all of the others who fins value in the outer banks.

When you and I met at the NCDOT workshop (Monday 12/5/11), you suggested that I put all of our comments in one place. I am sure that individual home owners will contact you separately, but on behalf of MBHOA, I have pasted below "The 10 Top Reasons to Support Beach Nourishment" from our website. I have also pasted below the letter we emailed to you on November 4, 2011, and I have attached the report by Coastal Science and Engineering, which we also sent earlier.

Since you and John Page (PB Americas) indicated at the workshop that the cost of nourishment is difficult to quantify and that you do not attempt to quantify the costs of the bridge options in terms of damage to the local economy (which are qualitatively outlined in the FEIS), please note Reasons #6 and #8, respectively. These are necessarily very approximate estimates; however, we will continue to refine them and update our website as we do more research and consult more with a variety of experts.

After we learn which options have been retained by the Merger Team for further study and receive a copy of the expert report (which you said you would send), we will almost certainly have more comments to submit.

Thanks again for all of your hard work and that of the Merger Team.

--wes

The 10 Top Reasons to Support Beach Nourishment

1. Beauty. The ribbon of sand that is the Outer Banks of North Carolina provides some of the most beautiful beaches in the world, some of the most beautiful wildlife, some of the most beautiful sunrises and sunsets. Nourishment preserves this beauty. Let's be honest, bridges are ugly.

2. Working with nature. Nourishment maintains a beach with sand matched to that beach. Pumping sand back onto a beach is simply using a human force to repair damage done by a natural force -- erosion. No concrete, no steel, no permanent manmade changes to nature.

3. Permanence. It is sometimes said that beach nourishment is not a permanent solution, but that just means that the nourishment must be repeated. This is how New York, New Jersey, and Delaware maintain their beaches (along with many

states and countries). The Final Environmental Impact Statement (FEIS) estimated that the nourishment cycle for Rodanthe would be once every 4 years. However, we will never know until we try it. It could be shorter; it could be longer. Thus, we should nourish as soon as possible to learn the facts.

4. Speed. Nourishment is the fastest way to protect NC 12. The main thing that delays nourishment, is getting the needed permits. In South Nags Head, that took several years, which is about how long it takes to design and build a bridge. We assume that a project this big and important will be fast-tracked by the appropriate government agencies. NC 12 needs protection ASAP!

5. Flexibility. Because nourishment is an ongoing solution, it can be repeated sooner or later depending on conditions. It leaves open the possibility of better solutions 20 years down the road based on new technologies. A bridge can always be built later if experience proves that nourishment is too costly or ineffective. A bridge cannot be "unbuilt" later, if nourishment is shown to be better or if better alternatives emerge. A bridge cannot even be stopped halfway if cost overruns show it to be be much more expensive than expected.

6. Saves money. The cost of a bridge in Rodanthe is $114 million to $240 million (NCDOT estimate in 2006 dollars, $128MM to $270MM in 2011 dollars) and $169 million to $212 million (our estimate in 2011 dollars based on figures provided by Coastal Science and Engineering). However, build a bridge today, pay for it today. Begin beach nourishment and you pay only 1/12 of the total cost today, and the "present value" cost of nourishment is only $106 million to $133 million.

7. Due diligence. The BIG question with nourishment is whether or not sand can be found. This is why nourishment needs to be one of the alternatives selected by NCDOT and the Merger Team on December 15 for additional study. What the experts have said is that there is very little sand in Wimble Shoals (several miles from Rodanthe), but there is a lot of sand in Platt Shoals, which is 6 - 9 miles north and there may be sources of sand in between. Experts also say that even 10 - 20 miles can be economically feasible. We need to know where the sand is!

8. Preserves the Hatteras Island economy. All of the bridge alternatives will have a devastating effect on the cultural and economic life of north Rodanthe (not just Mirlo Beach). Popular uses such as fishing, birding, surfing, wind surfing, and kite boarding will all be negatively affected or eliminated. Vacation rentals and property values will plummet. The Mirlo Beach subdivision alone has a tax value of over $50 million, and the rest of northern Rodanthe is worth at least that much. Thus, the annual tax contribution to Dare Co. is over $400,000. Over the 50-year life of a bridge, that is $20 million. Add to that the rental revenue and retail sales to vacationing renters and it is clear that bridges will result in a substantial financial loss to our community. ... and our community is one of the few that send more tax revenue to Raleigh than is spent here on government services.

9. Rodanthe is the test case for all of OBX. All of Hatteras Island is experiencing erosion problems: private homes in the villages, Pea Island WIldlife Refuge, and the Cape Hatteras National Seashore. What happens in Rodanthe will be a model for everywhere else. Do we really want a policy of simply building bridges and abandoning the current NC12 and the lands it supports? Is it right to just let the island dissolve into the Atlantic, when nourishment might keep the place just like it is now?

10. Send a message. It took 20 years to make a decision about the Bonner Bridge. The North Carolina Department of Transportation and the Federal Highway Administration worked with a Merger Team with representatives from many local, state, and national governmental organizations. But the people who live, work, and play here always come last. We get a month or two of public comment, then a decision is made. It is time for common sense to prevail. Please send a message to everyone who will be in the room when this decision is made and everyone who can directly influence this decision. It is now or never.

The message below was sent 11/4/11:

Jerry, Beth, and others at NCDOT and USFWS,

Thanks again for your responsiveness in providing information in the past and for arranging for Jim Hoadley to attend the meeting on Monday (10/31/11) at Mirlo Beach where NCDOT, USFWS, CHEC, and MBHOA (board members and affected property owners) were represented.

I would like to share two opinions that have emerged among MBHOA members. Opinion 1 involves the more immediate issue of the erosion of private property on the west side of NC 12, and Opinion 2 involves the more long term beach erosion and ongoing damage to NC 12 and private property. Both of these opinions are based on our frequent observations of the area and a preliminary expert report prepared for MBHOA by Coastal Science and Engineering (CSE). Major CSE projects in North Carolina include the beach nourishment project at Nags Head and the Bogue Bank project in Carteret County. Their report is attached to this email for your review.

We would be very interested to know whether or not you share our opinions, and, if not, we hope you will share the evidence that leads you to different conclusions. Overall, our opinion is that NCDOT and USFWS decisions and actions, however well intended and cost effective at the time, have contributed significantly to the extreme erosion damage that occurred during Hurricane Irene. From our common sense perspective, we believe some type of significant assistance from both agencies is appropriate and deserved. Moreover, we hope that the information we are providing assists both agencies in their current decisions about the future of Hatteras Island and that they will fully take into account the likely damage to Mirlo Beach that will almost certainly result from some alternatives under active consideration.

OPINION 1: THE CAUSES OF THE EXTREME EROSION AT MIRLO BEACH DURING HURRICANE IRENE. The erosion in question occurred on the west side of NC12 from Blue Sea Rd. to Green Lantern Ct. and removed most of the sand in that area transforming property that was approximately 4 foot above sea level into a pond whose bottom is now several feet below sea level. Nine Mirlo Beach properties as well as MBHOA roads and common areas were directly affected. All Mirlo Beach properties were indirectly insofar as ocean access is now limited for properties west of NC12. We also believe the power poles in standing water and remaining debris represent a significant safety hazard.

We believe there were **four important causal factors** that created this extreme and focused erosion rather than the diffuse and limited erosion that normally occurs in sound side flooding. **First**, the narrow breach at the boundary of Rodanthe and Pea Island Wildlife Refuge created a singular point of drainage for the 4 - 5 foot of water that flooded the area when the winds from Irene shifted to the southwest. **Second**, this focal breach was most immediately caused by the canal running between the ponds in the Refuge (Paul's Ditch), which significantly increased the water pressure at the point of the breach. (Evidently this canal has been in place for many years and is jointly maintained by NCDOT and USFWS. Several residents noted that it was cleared and re-established just prior to the storm.) **Third**, the sandbags placed on the east side of NC12 just north of the breach formed a dam which prevented overwash or secondary breaches, forcing all of the water through the narrow breach (plus NC12 and elevated beachfront properties south of the breach also acted as a dam). **Finally**, from a broader perspective, this breach (indirectly) and previous ocean side breaches (more directly) were caused by the high beach erosion rate at this "hot spot." Given this, the breach would have been prevented had there been a program of beach nourishment of sufficient scale in prior years. In particular, based on our previous discussions with you, we know that such a project had been planned (at least for study, R-3116D), but was set aside several years ago in deference to the Bonner Bridge plan. Of course, there may have been good budgetary and political reasons for not engaging in beach nourishment in previous years, but it is a fact, nonetheless, that such nourishment would have prevented this damage.

OPINION 2: BEACH NOURISHMENT IS A VIABLE LONG-TERM SOLUTION TO THE RODANTHE HOT SPOT PROBLEM. At our meeting on Monday, Dennis Stewart (USFWS) told us that there had been a high-level, inter-agency meeting about long-term solutions the previous Monday (10/24/11), which he attended. He said that during that meeting evidence was presented that while there was appropriate sand close to Mirlo Beach (e.g., within 3 miles) that this source was not sufficiently large to supply a long-term solution. He also mentioned that a distance of 6 miles was considered, but was thought to be too costly. You will note in the attached CSE report that distances of 10 to 20 miles are sometimes economically viable. Thus, based on the currently limited information that we have about NCDOT plans, we are very concerned that NCDOT is prematurely abandoning beach nourishment in favor of a bridge. We believe that, if only as a matter of due diligence and fairness, NCDOT should also get an analysis from CSE (i.e., more detailed and thorough than the one attached). While there are many experts that can provide valuable input to the NCDOT decision, it is hard to think of anyone with more practical and scientific knowledge of actual nourishment projects on the NC coast.

As we all know, the Governor has mandated that a long-term solution to the NC 12 problem be developed and implemented as soon as possible. Thus, we believe it is important for you to understand our Opinion 2 and for us to understand your opinions and the process you now plan to follow. However, the issues in Opinion 1 are a more immediate concern for us. MBHOA has contacted the necessary agencies to secure permits to fill in the erosion on the west side of NC 12. We have also

secured bids to complete the work. Unfortunately, the MBHOA does not have the funds to complete this project. We have filed for FEMA/SBA loans; however, this process is long, and approval for such loans is not guaranteed. Our current understanding, based on your previous responses, is that NCDOT has no further forms of assistance for us, and our only recourse is to make a legal claim of damage. Is that true? Is that true for USFWS as well? This is not something we are eager to do, except as a last resort. We would much rather find a more cooperative solution. Thus, we need to know that it is our only remaining option before we go down that path. Do you think assistance might be available from some other NC or federal agency?

As always, we deeply appreciate your efforts, the information you have provided, and your willingness to engage in frank and productive discussions.

Sincerely,

Wes Hutchinson
Vice President, Mirlo Beach Homeowners Association

Smyre, Elizabeth A

From: Hutchinson, Wes <jwhutch@wharton.upenn.edu>
Sent: Tuesday, December 13, 2011 9:08 PM
To: Smyre, Elizabeth A
Subject: FW: Mirlo Beach and Phase 2 of the Bonner Bridge Project

FYI.
--
Wes Hutchinson
Stephen J. Heyman Professor
Marketing Dept., 746 Jon M. Huntsman Hall
The Wharton School, University of Pennsylvania
Philadelphia, PA 19104-6340

office: (215) 898-6450
fax: (215) 898-2534

From: Robert Dean <dean@coastal.ufl.edu>
Date: Tue, 13 Dec 2011 20:41:38 -0500
To: John Wesley Hutchinson <jwhutch@wharton.upenn.edu>
Subject: RE: Mirlo Beach and Phase 2 of the Bonner Bridge Project

Hello:

Without knowing all the background information, I believe that "further study for nourishment" should be worthwhile.
I suspect that the "UF expert" that Beth Smyre referenced was Dr. Max Sheppard. However, to the best of myknowledge, he does not work with beach nourishment.

Let me know if I can assist further.

Best regards,

Bob Dean

From: Hutchinson, Wes [mailto:jwhutch@wharton.upenn.edu]
Sent: Tuesday, December 13, 2011 1:29 PM
To: dean@coastal.ufl.edu
Subject: MirloBeach and Phase 2 of the Bonner Bridge Project

https://sites.google.com/site/mirlobeachnc/home

I am the VP of the Mirlo Beach Home Owners Association and several paths have led me to you. As you probably know know the Bonner Bridge merger team will be meeting on Thursday to decide which design options to retain for further study for Phase 2 of the Bonner Bridge Project. While researching beach nourishment, I came across a 2004 report you did with Robert Dolan, at the NCDOT workshop last week Beth Smyre mentioned that one of their experts was from UF (so I googled you, BTW I was on the UF faculty for 13 years before coming to U Penn), and this morning when I asked Tim Kana (Coastal Science & Engineering)

about you, he said, "Bob Dean is revered in our profession and would be a great resource for you." Thus, I would love to know your opinions about beach nourishment as a Phase 2 solution for the Rodanthe hot spot.

As you might expect, the MBHOA is a strong advocate offurther study for nourishment. We think it's worth the time and money to find out exactly where the sand is (or isn't) before a final decision is made. We will be "going public" this afternoon with a website (link is above -- gotta love Google). I am running it by the experts we have contacted for comments and especially to confirm that the facts behind our opinions are right (even though others might arrive at different opinions based on the same facts). We would value any thoughts you might have.

--wes

--
Wes Hutchinson
Stephen J. Heyman Professor
Marketing Dept., 746 Jon M. Huntsman Hall
The Wharton School, University of Pennsylvania
Philadelphia, PA 19104-6340

office: (215) 898-6450
fax: (215) 898-2534

Smyre, Elizabeth A

From: Lynn & Windsor Jacques <frisconc@embarqmail.com>
Sent: Sunday, December 11, 2011 10:12 PM
To: Smyre, Elizabeth A
Subject: comment on the rt12 pea island fix

Lynn & Windsor Jacques
51170 Lassiter Lane
P.O. Box 1025
Buxton, NC 27920-1025
Tel 252-995-3760
e-mail: frisconc@embarqmail.com
Cell Phone 252-995-2125 or 252-305-1040
December 11, 2011

Ms. Beth Smyre, PE
NCDOT - Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Re. Comment concerning the Bonner Bridge replacement project - phase II TIP No. B-2500 Dare county

Ms. Smyre.

My wife & I attended the NCDOT Bonner Bridge Public Workshops meeting in Rodanthe on 12/6/11. I want to compliment you & your staff on presenting a well organized and informative meeting. The NCDOT personnell were knowledgeable & personable.

As you know, the Pea Island road situation is critical to the survival of Hatteras Island, & Dare county as a whole, both economically & socially. We firmly believe that the solutions presented at the meeting to fix the Pea Island situation were stop-gap & temporary at best. If NCDOT, the state, Dare county, the federal government &, most of all, the residents, are serious about providing sustainable access on & off Hatteras Island, we need to reconsider the Pea Island causeway by-pass, which was part of the original Bonner Bridge replacement proposal. During the December 6 meeting, the only reason we were given for not considering the Pea Island by-pass was that it would be too expensive. This being said, there are creative & innovative ways to finance such a project which could include tolls, a special tax on the people who benefit, municipal bonds or private investment. Yes, it will be expensive; & not politically attractive but it should be evaluated. One option that should be considered would be to tie a by-pass into the existing Bonner bridge. The existing bridge may not meet modern design criteria but is being maintained to be safe & useable.

During the meeting, when we mentioned a ferry system around Pea Island, We were told that NCDOT had evaluated a ferry solution & felt that a ferry system could not be engineered which would be able to handle the traffic & therefore did not present it as a viable solution. This answer is a cop-out. Given the gravity of the situation, we need to include a ferry solution as part of the evaluation process. I feel a ferry solution could be engineered & may be the least expensive & the most effective.

Pea Island is a dynamic westward moving, environmentally sensitive sand bar in the Atlantic ocean, the ocean is rising, storms are unavoidable, beach erosion is inevitable, engineering & building a sand dike on this sand

bar is foolish, building a fixed structure behind the dike is fool-hardy.

We would appreciate a response to our comments.

Thanks

Windsor J

Smyre, Elizabeth A

From: Frank A. Jakob <capehatreal@yahoo.com>
Sent: Tuesday, December 06, 2011 7:56 PM
To: Smyre, Elizabeth A
Cc: Jerri Getty; ccjake44@gmail.com; 'Warren Judge'; 'Warren Judge'
Subject: Public Comment Rodanthe Dec 6, 2011 re NC Hay 12 and new Bonner Bridge
Attachments: 12062011 faj proposed stumpy point bridge scan0003.pdf; 12062011a aerial ocean front and sound front Dare co parcels rodanthe scan0004.pdf

Dear Beth Smyre,

I attended the public comment in Rodanthe this evening, December 6, 2011 regarding the construction of the new parallel Bonner Bridge and alternatives on how to maintain NC Highway 12 to Rodanthe. This was the fourth such meeting in the past 6 years and many more of the same meetings I've attended over the past 20 years.
Hopefully we are getting closer to a solution.

After reviewing your site plans and many proposals, I'd like to offer my comments below:

First off, I would like to tell you a little about myself. I have an engineering back ground and worked as a project engineer for 10 years with United Engineers and later, Stone and Webster in the construction of Electrical Power Plants and Steel Mills. I relocated to Rodanthe in 1976 and have been in the development and construction of real estate here for over 30 years. I currently own and operate Cape Hatteras Realty and Construction Corp in Salvo, NC. I'm the broker who was responsible for the sale of Jennet's Fishing Pier and later indirectly Manns Harbor Marina to the State of North Carolina, as well as many similar projects in my 30+ year experience. I have seen the effects of beach erosion on NC Highway 12 thru-out Pea Island and Rodanthe with over 1,800 feet lost due to erosion in one storm (south side of Oregon Inlet circa 1970's). There are many plotted lots in Rodanthe that are now in the ocean, including a 28 unit condo project on S Holiday Ave. The highway has been relocated 3 times since I've lived here, and now there is no land left to relocate it again. After reviewing historical maps from the 17th and 18th century Rodanthe was an inlet for centuries. Trying to combat the natural southerly flow of ocean currents in this hemisphere with beach erosion is a losing battle.

Sometimes you have to step back and take another look to see the forest thru the trees. Attached is a site plan marked "Alternate III" and aerial of Dare County property in Rodanthe . The only reason we have a problem with NC Highway 12 thru Pea Island is because we are ***building a new bridge*** in the ***wrong location***. "Forget a new bridge across Oregon Inlet". Take the funds and build a new 13 mile bridge across the sound from the NC State Ferry terminal in Stumpy Point to the NC State/Dare County Ferry Landing in Rodanthe (behind the community center).Leave Pea Island alone for the wildlife. There would be no need for beach nourishment or maintenance of NC Hwy 12 or property acquisitions.

Let mother nature take care of the Rodanthe and Pea Island Breech. Make it accessible for walk on traffic only. Dare County already owns 9.82 ac sound-front (Rodanthe-Waves-Salvo community center) and 7.33 ac vacant ocean front land across the road from the community center. The county already applied for a grant on the ocean front parcel to build a recreation center with public parking. This would allow public walk-on access along the beach front to Pea Island.

This could be a simple solution to a unsolvable complex problem (and getting bigger).....provided you can get thru the political hoop net. The life line of over 5, 000 Hatteras Island residents and 1,500 hundred Ocracoke residents, including hundreds of small mom and pop businesses and emergency services depend on safe dependable access from Rodanthe.

After all, the State and Feds are almost finished building a new high speed interstate US/NC 64 from I-95 (Rocky Mount, NC) to Manns Harbor/Nags Head, NC which could easily intersect Stumpy Point, NC.

"Bingo"

Please feel free to contact me if you have any questions.

Thanks and Have a Great Day !

"Without hard work, nothing grows but weeds"

Frank

Frank A. Jakob, President Realtor-Broker-Auctioneer

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www.capehatterasrealty.com

(See Me on Facebook)
www.facebook.com/OBXJake

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Smyre, Elizabeth A

From: Thomas Kligge <tdkligge@gmail.com>
Sent: Wednesday, December 14, 2011 11:35 AM
To: Office of the Governor
Cc: Smyre, Elizabeth A; timspear@ncleg.net; Warren Judge; allenb@darenc.com; joshua.bowlen@mail.house.gov; kara_weishaar@burr.senate.gov; aaron_suntag@hagan.senate.gov
Subject: Beach Nourishment

Dear Government Officials, in addition to all information that you probably have received supporting beach nourishment for the Rodanthe area, a quick personal story: In May 2011, my wife and I invested our life savings in our dream house in Mirlo Beach. After exploring the entire eastern coast from Delaware to South Carolina, we both decided this is where we wanted to be. We felt we were safe investing on the west side of Route 12, thinking it would be there to protect us. Now, several options proposed, are threatening the entire northern area of Rodanthe. Please decide to pursue beach nourishment to protect this beautiful and historic area for us and our descendants. Thank you, Tom and Janet Kligge.

Smyre, Elizabeth A

From: Cathy Lane <LANECA@pwcs.edu>
Sent: Thursday, December 15, 2011 3:05 PM
To: Smyre, Elizabeth A
Subject: Beach Nourishment

I am writing to you today with concerns about the proposal to ensure access to Hatteras Island through a beach nourishment project. Because I spend my summers in Hatteras Village and plan to retire there, I am greatly interested in keeping full time access to Hatteras Island available. However, I do have some questions that I would like to see addressed before a decision is made to go ahead with beach nourishment. Those questions are as follows:

1) Where is the sediment coming from? Will it be dredged and pumped onto the beach, or brought by dump trucks? If the sediment is being brought in, how will the eventual erosion of the new material affect the offshore environment? If it is being pumped in, how will the lose of sediment offshore and the dredging affect the offshore environment?
2) What will the size of the sediment be? Will it match the current grain size on the beach or be larger or smaller? Will the sediment be well sorted or poorly sorted? This will make a difference in how quickly the new beach erodes.
3) Will there be mud and silt mixed in? These tend to erode quickly and cause poor water quality directly offshore. In addition, contaminates tend to build in mud and silt.
4) Will the new sediment be compacted more than the existing sediment? Organisms that currently use the beach might not be able to survive if the sediment becomes too compacted.
5) Will a sediment toxicology study be done before the project is started?
6) Will the beach profile be affected? Will the "new" beach be steeper than the existing beach? This will affect how quickly it erodes and what organisms can utilize the beach.
7) Has a biological impact study been done? Will sea turtle nests be affected (sea turtles would be unable to nest on a compacted beach and cannot crawl onto a steep beach profile)? If there is mud and/or silt in the sediment greater than a few %, are there offshore filter feeders (clams, mussels, etc) that could be affected by the resulting poor water quality as the mud and silt erode?
8) Where is the funding coming from?

I thank you for taking the time to read this e-mail. I also thank you in advance for taking the answers to these questions seriously before any decision is made regarding beach nourishment. While, again, I want access to Hatteras Island, I do not want it at an exorbanent cost. Nor do I want the environment harmed to too great an extent. After all, it is for the great beauty of the Outer Banks that I spend my summers there.

Thank you,

Cathy Lane
Oceanography Instructor
Science Department Chair
C.D. Hylton High School

Smyre, Elizabeth A

From: Chris Lazinski <clazinski@gmail.com>
Sent: Thursday, January 19, 2012 3:24 PM
To: Smyre, Elizabeth A
Subject: Comments on the Future of S-Turns

Hello Ms. Smyre,

I'm writing in response to a recent article in ESPN Surfing (http://es.pn/wZBcbh) that details the potential outcomes of NCDOT's planning for the future of the Pea Island and North Rodanthe breach sites. As a resident of Hatteras Island whose employment depends on access to the waters of the ocean and the sound, I urge you to consider the needs of the surfing community in designing the future road structure of the S-Turns area. I teach kiteboarding and surfing lessons full-time for Real Watersports in the town of Waves, and I can attest that a very significant portion of our year-round business comes from tourists who travel to Hatteras Island specifically for surfing or kiting. By designing a road structure that does not easily preserve access to this area, we risk losing at least some of these surfers and kiters to other, more easily accessible riding locations. This risk is unacceptable to an island that was so physically and economically damaged by Hurricane Irene this past August. In years past, the lack of public parking or designated public beach accesses in the S-Turns area has led to conflicts with property owners and a weakening of the dune structure due to constant human traffic. Barring any more large natural events, the surf breaks at the north end of Rodanthe won't be going anywhere, and as a consequence, neither will the surfers. By designing a long-term plan that takes the needs of surfers into account, such as the needs for parking, bathrooms/changing rooms, and designated beach accesses, we can preserve access to these breaks while also pleasing local property owners and helping preserve the dunes in that area. I feel that this win-win-win outcome should be the goal of your design process, and I hope the DOT listens to our concerns.

Best,
Chris Lazinski
Kiteboarding Coach, Real Watersports
www.realwatersports.com

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: Rush Little

ADDRESS: 23310 Hwy 12
Rodanthe, NC 27968

~~**E-MAIL:**~~ Mailing Address PO Box 876
HARDY, VA 24101

COMMENTS AND/OR QUESTIONS:

I oppose the bridge. I own a sound front home in Rodanthe. The bridge would take away the view and looking at traffic not the sound front. Windsurfers will be trying to go over and under bridge which would be dangerous. It would be a lose of revenue

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Smyre, Elizabeth A

From: SC SEA <scseasurfer@gmail.com>
Sent: Friday, January 06, 2012 12:22 PM
To: Smyre, Elizabeth A
Subject: Surfers' Environmental Alliance (SEA) support for public parking at "S-Curves" surf break on the Outer Banks

SURFERS' ENVIRONMENTAL ALLIANCE (SEA)

The Leading Edge of Coastal Activism

Respectful greetings from Surfers' Environmental Alliance (SEA),

SEA asks that any bridge-building or public transportation project on the Outer Banks include provision for public parking for recreational beach users and surfers. We believe beach access is a public right and public funds should not be used to eliminate or reduce said existing access. This request applies to the S-Curves surf break, in particular. This is a well-known break and used by surfers year-round. Such recreational activities help power the local economy, as well.

As a preliminary matter, Surfers' Environmental Alliance (SEA) is committed to the preservation and protection of the environmental and cultural elements that are inherent to the sport of surfing. Our goals are achieved through grassroots activism, community involvement, education and humanitarian efforts. We engage in projects that strive to conserve the quality of our marine environment, preserve or enhance surf breaks, protect beach access rights, and safeguard the coastal surf zone from unnecessary development. www.seasurfer.org

SEA operates nationally and overseas also when appropriate, so we are extremely interested in the Outer Banks situation. Any public action which reduces water quality, beach access, or surfing access is strongly opposed by all SEA members.

We all urge you to preserves beach access parking for surfers and all other beach users.

Jim Littlefield
West Coast Environmental Projects Director
Surfers' Environmental Alliance (SEA)
www.seasurfer.org

Smyre, Elizabeth A

From: Matthew_McCambridge@bd.com
Sent: Friday, December 09, 2011 4:54 PM
To: Smyre, Elizabeth A
Subject: Rodanthe NC 12 road options,

Dear Ms. Smyre:

This letter is to ask the NCDOT to implement the beach nourishment option for stabilizing Highway 12 into Rodanthe. It makes the most sense economically and would have the least disruptive effect of the four options. In particular, the bridge in the sound would ruin the Mirlo Beach area. As a frequent visitor to the area, I know that it would harm the active sound life that is so popular. Kiteboarders, stand-up paddlers, windsurfers, kayakers, and families enjoying the shallow warm waters would all be harmed by a bridge in the sound.

I fear that any program without beach nourishment would lead to further severe erosion and the gradual elimination of the northern Rodanthe area. Thank you for your considerations.

Very Respectfully,
Matt McCambridge

BD

Matt McCambridge
Distribution / Supply Chain

BD
1 Becton Dr., Franklin Lakes, NJ 07417 USA MC: 017
tel: 201-847-5853
E-mail: Matthew_McCambridge@bd.com Website: www.bd.com

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COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: George Mead

ADDRESS: 27251 Dorr Rd - Salvo

E-MAIL: Geomead@charter.net

COMMENTS AND/OR QUESTIONS:

It seems to me that Beach Nourishment is a lost cause. It seems to be costing a great deal with only temporary results.

A raised structure appears to be an approach that promises longevity in the long run, less overall cost and better reliability.

Thank you

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

So Do What You Have to Do-

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: Gisele Mead

ADDRESS: PO Box 364 Rodanthe NC 27968

E-MAIL: GRMead@CHARTER.NET

COMMENTS AND/OR QUESTIONS:

I think beach nourishment is a terrible waste of money. We need a bridge and not a temporary one. This bridge (whatever kind you choose) needs to be started immediately. Please don't waste any more money repairing the road every time we have a storm. Get off the pot!! Build a bridge.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Smyre, Elizabeth A

From: Diane Medley <Diane.Medley@mcmcpa.com>
Sent: Wednesday, December 14, 2011 1:27 PM
To: Smyre, Elizabeth A; Tim.Spear@ncleg.net; warrenj@darenc.com; allenb@darenc.com; Office of the Governor; Joshua.bowlen@mail.house.gov; kara_weishaar@burr.senate.gov; aaron_suntag@hagan.senate.gov
Subject: Permanent Solution to Highway 12 Erosion Issues

Importance: High

Dear Government Officials and Other Leaders:

I am writing this email to plead with you to seriously consider the Beach Nourishment proposal currently being discussed for Highway 12. I am a homeowner of three houses on the Outer Banks and I have vacationed there for over 30 years. This area of your state is extremely important to many people who do not live in North Carolina but who go there on a regular basis and spend lots of time and money there every year. This portion of your state has had some misfortune of late with the storms that have damaged the infrastructure. It is very important that you consider this situation and take action now to stabilize and support this portion of your state for the future and future generations.

I appreciate your consideration of this matter and hopefully the solution that can and must occur.

Sincerely,

Diane Medley

MCM
Mountjoy Chilton Medley
Diane B. Medley, CPA-ABV, CVA
Co-Managing Partner
Phone / Fax (502) 882-4303
MAIN PHONE: (502) 749-1900 FAX: (502) 749-1930
2000 MEIDINGER TOWER • 462 SOUTH FOURTH STREET • LOUISVILLE, KY 40202
LOUISVILLE | LEXINGTON | FRANKFORT | CINCINNATI
AN INDEPENDENT MEMBER OF BAKER TILLY INTERNATIONAL 888-587-1719 WWW.MCMCPA.COM

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Smyre, Elizabeth A

From: Jer Mehta <jmehta@speechsoft.com>
Sent: Wednesday, January 11, 2012 5:09 PM
To: Smyre, Elizabeth A
Subject: RE: Bonner Bridge Replacement Project Phase II - Public Workshop Comments

Hi Beth,

Now that beach nourishment has been dismissed as an option for the Rodanthe S-curve project, I want to go on record as favoring the option to elevate NC 12. I am still very opposed to building a new bridge in the Pamlico Sound as it would have a very negative impact to my sound front home in Rodanthe.

As stated in my email below, a bridge in the Pamlico sound will destroy the charm and character of this unique natural resource and diminish the beauty of the entire area. It will ruin the property values of all the homes in Rodanthe, specifically the sound front homes. Our sound front home on Pappy Lane is right next to the planned termination point of the Pamlico bridge. The chaos, noise and disruption caused during construction will virtually put our rental home out of business. Additionally, this bridge will destroy the areas sport of kite boarding, windsurfing, and sailing, and would ruin the vacation rental business, a source of county revenue. We currently get a lot of rentals in the April, May, June, September and October months from kite boarders, wind surfers. This revenue will be lost for all homes north of the bridges termination point. Furthermore it will ruin the natural beauty of the wildlife refuge as well as the natural environment of the Pamlico sound waters.

Overall the option to build a bridge in the Pamlico Sounds would have a tremendous negative impact on the area that so many people are trying to preserve in its natural state and ruin the businesses and home values in Rodanthe.

Please take this into consideration as you assess the 2 remaining options for Rodanthe. Is there a target date when a decision will be made public?

Regards,
Jer Mehta

From: Smyre, Elizabeth A [mailto:bsmyre@ncdot.gov]
Sent: Monday, December 12, 2011 1:42 PM
To: Jer Mehta
Subject: RE: Bonner Bridge Replacement Project Phase II - Public Workshop Comments

Jer-
Thank you for your comments! Please let me know if you have any further comments or questions.
Thanks,
Beth

Please note my phone number has changed, effective March 30, 2011- see below.

Beth Smyre, P.E.
Project Planning Engineer
NC Department of Transportation
Project Development & Environmental Analysis Branch
1548 Mail Service Center

Raleigh, NC 27699-1548
(919) ***707-6043***

From: Jer Mehta [mailto:jmehta@speechsoft.com]
Sent: Sunday, December 11, 2011 9:57 AM
To: Smyre, Elizabeth A
Subject: Bonner Bridge Replacement Project Phase II - Public Workshop Comments

Hi Ms. Smyre,

Thank you for taking the time to discuss the Bonner Bridge Replacement Project Phase II at the public workshop held 12/5 in Manteo.

My name is Jer Mehta. My husband Morris Neuman and I own a sound front home at 23177 Pappy Lane, Rodanthe and another home at 22197 Green Lantern Court, Mirlo Beach, Rodanthe. Both houses are used as a rental business and the option of a new bridge in Pamlico Sound would destroy our business and investments.

For the Rodanthe breach area, I strongly favor the Beach Nourishment Option and am very opposed to the option of building a new bridge in the Pamlico Sound connecting Pea Island to Rodanthe.

The alternative for a new bridge in the Pamlico Sounds will be abandoning Rodanthe, our beach and destroying our sound. This alternative will have a huge negative impact to our homes, investments and businesses.

The beach is a national resource, unrecoverable once lost. Millions of people come to the beaches to vacation, enjoy fishing and for water sports, providing tourist dollars to the county and the state. All thru the eastern coast, county/state governments help local towns preserve the tourist business e.g. Ocean City MD, Bethany Beach MD. In NY, the beach shoreline is protected via jetties. The beach nourishment effort in Nags Head preserved a lot of investments during this past storm and has helped rejuvenate the image of Nags Head as a tourist destination. Places like Aspen CO spend millions of dollars each year grooming their ski slopes to preserve the tourist business, even though each year the snow melts and has to be replenished. Once the bridge is built, the existing NC 12 will be abandoned and the shoreline erosion will destroy not only the ocean front homes but the homes west of NC 12 (like our home) will be unmaintainable by the owners. The roadway and beach front as you enter Hatteras must not be abandoned. It should be nourished and preserved to showcase the natural beauty of this island and as the gateway to Hatteras.

The Pamlico Sounds is the largest body of water in the US with clear waters and unobstructed views. This bridge in Pamlico sound will destroy the charm and character of this unique natural resource and diminish the beauty of the entire area. It will ruin the property values of all the homes in Rodanthe, specifically the sound front homes. Our sound front home on Pappy Lane is right next to the planned termination point of the Pamlico bridge. The chaos, noise and disruption caused during construction will virtually put our rental home out of business. Additionally, this bridge will destroy the areas sport of kite boarding, windsurfing, and sailing, and would ruin the vacation rental business, a source of county revenue. We currently get a lot of rentals in the April, May, June, September and October months from kite boarders, wind surfers. This revenue will be lost for all homes north of the bridges termination point. Furthermore it will ruin the natural beauty of the wildlife refuge as well as the natural environment of the Pamlico sound waters.

Overall the option to build a bridge in the Pamlico Sounds would have a tremendous negative impact on the area that so many people are trying to preserve in its natural state and ruin the businesses and home values in Rodanthe.

There is continuous dredging to keep the Oregon Inlet open to fishing boats. The Sound is also quite shallow and requires dredging to keep the channel open. This sand should be made available and used to nourish/maintain our shoreline. Jetties should also be considered to preserve our beach.

Beach nourishment will preserve our national treasures - our beaches and a natural Pamlico Sound for thriving vacation business and enjoyment for millions.

After Hurricane Irene, any option but beach nourishment will be akin to abandoning Rodanthe.

Elevating Hwy 12 with beach nourishment seems like the least invasive option after beach replenishment.

Thank you for your consideration.

Regards,

Jer Mehta
914-384-3047 (cell)

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Smyre, Elizabeth A

From: Miale, Rick
Sent: Friday, January 06, 2012 6:10 PM
To: Smyre, Elizabeth A
Subject: S-Turns and parking

I saw the article in ESPN about parking at S-Turns. Since you've asked for comments I'd like to share.

I've surfed since the early 80s. I spent a lot of time on the Outer Banks, usually between Rodanthe and Frisco. Some visits were to go surf, some visits were to go fish. Hatteras is a very important place for me. Anyway, I'd love to see a parking lot at S-Turns. Even if it was inland a bit and required a walk it would beat having parking eliminated. I've always feared parking on 12 as it's dangerous and there are very few parking places in Rodanthe. Most of the streets are private or are too narrow to offer parking. I can understand why people wouldn't want their streets clogged with vehicles - when I lived in Virginia Beach (home) we lived a few blocks away from the water and it was always a zoo. Both sides of the street would be full and at times it was hard for us to pull into our driveway. When the city added some additional parking lots that really helped. The traffic went from the streets into the lots. It was then safe to walk on the streets again. One idea that I'm ok with is paid parking. A few bucks to park all day is a bargain and would help to offset the price of the lot, maybe evening making the town of Rodanthe some extra money in the process.

Thanks for reading this!

Rick Miale
NC Division of Public Health/Early Intervention
www.ncei.org

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Smyre, Elizabeth A

From: bsmyre@ncdot.gov
Sent: Monday, November 28, 2011 5:06 PM
To: Smyre, Elizabeth A
Subject: I have Carbon Copied you on this ContactUs message

Comment History
Tracking Number: WEVO1Y5RTT
Unit Name: Bonner

Sent By: Contact Us Administrator **Date/Time:** 11/27/2011 5:56:52 PM
Comment:
Ronald- Thank you for your comment on the Bonner Bridge project; all comments are important and will be fully considered as we move forward with the next phase of the project. Please let us know if you have any further comments or questions! Thanks, Beth Smyre

Sent By: Ronald Moorse **Date/Time:** 11/27/2011 5:56:52 PM
Comment:
In light of the Hurricane Irene effects, it is my considered opinion that building a new bridge is unwise. Spending $215 million on the bridge will give the people of North Carolina a connector between nowhere and nowhere when the next hurricane hits. It would be better to build ferry terminals: quick and easy to repair at much lower cost.

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Norburn, Robert E.

From: Smyre, Elizabeth A [bsmyre@ncdot.gov]
Sent: Friday, January 20, 2012 4:46 PM
To: Brenda J Morris; Norburn, Robert E.
Cc: Office of the Governor
Subject: RE: DOT options for fix for NC 12, Rodanthe

Brenda, Robert-

Thank you for your comments on the NC 12 projects. Every comment that NCDOT receives will be carefully considered as the planning process for the projects moves forward. If you have any further comments or questions, please feel free to contact me.

Thanks,
Beth Smyre

From: Brenda J Morris [brexmor@optonline.net]
Sent: Friday, January 20, 2012 2:07 PM
To: Smyre, Elizabeth A; norburn@pbworld.com
Cc: Office of the Governor
Subject: DOT options for fix for NC 12, Rodanthe

To: Beth Smyre and Bobby Norburn,

Re: NC 12 fixes

My husband and I own an oceanfront house in Rodanthe, on Seagull Street, in the Mirlo Beach Development. It was built in 1990. We also own a lot across the street on Cross Of Honor Way in the Mirlo Beach development.

My husband, Robert, and I purchased the lot, on Seagull Street, in 1989 and built the house months later in 1990. We intended to rent the house to pay the mortgage and then retire to this area later on. After we built the house, we noticed the beginning of the groin project at the Bonner Bridge area. I remember the project was to build the groin on each side of the inlet, east of Bonner Bridge and put into place a pumping system on each side so as to direct the sand, that was dredged, southward or northward so that the beaches, south and north, do not lose sand from this project. The beaches were not to be starved of sand as a result of this groin and dredging activity. The project was never finished, with only one groin in place and no pumping systems to direct the dredged sand to the ocean. Instead, there are new islands being created every year in the sound, with the sand that is supposed to travel up and down the coastline. NC prohibits "permanent structures" on the beaches, however, this "permanent structure" was allowed to save a broken down building, which does not generate revenue, and to make a convenient route for fishing boats, which caused properties south and north of it to lose their beach sand, as well as property owners to lose their homes on the ocean. This project was only a band-aid for the Bonner Bridge, as it should have been replaced years ago, while the "always delayed" process took place for bridge replacement.

My husband and I have witnessed, since this groin was put in, the deterioration of the beaches in our area as well as the beaches north of us in Nags Head, Kill Devil Hills and Kitty Hawk. We strongly believe that the problems from Hurricane Irene, the inlets that were cut at Pea Island and Mirlo, were largely a result of the stripping of our sand, over the years, caused by the dredging at the Bonner Bridge area which still takes place. We loved the beaches in our area in 1989. We purchased the ocean lot because of this. We know that sand comes and goes every year, however, the escalation has

been speeded up at a ridiculous pace due to the dredging. If you notice, the lifesaving station, that was ready to fall in the water, has a huge island around it now. This is, basically, our lost beach!

Beach nourishment is used all over the US coastline and it works! Look at Atlantic City, NJ and Ocean City, MD. Robert and I believe that replacing the sand on our beaches would not only save NC 12 in this area, but the Mirlo Beach oceanfront homes as well. It took years for us to lose this sand and our beaches are almost non-existent now. The bridge option in the sound, which comes in on Sixteenth of August Street in Mirlo, will definitely destroy all of our properties, as well as the bridge option coming in at the Island Convenience campground. All the properties north of the campground will be left and forgotten. This revenue for the state will be gone, as the roads will be slowly abandoned by the NCDOT! A very large piece of Rodanthe will disappear, from ocean to sound! Both bridge options will affect all properties north of Island Convenience and will also need to be maintained with possible sand replenishment in the future so as to protect NC 12 and the rest of Rodanthe and Waves from disappearing.

Property and sales taxes could be raised to generate the money needed for sand replenishment for the beaches. Since Hatteras Island gives much more to the state, in taxes, than it has ever received, we think it's time to help this island because its beaches are disappearing at an alarming rate. Hatteras Island was once a beautiful island with beautiful beaches and now it looks like a disaster zone after every hurricane or nor'easter that passes by. Hatteras Island has long been neglected by NC state and the Federal Government, that took it over years ago, then promising to maintain it but instead, having FEMA haul away our sand after every disaster instead of putting it back on our beaches.

Robert and I believe that the small bridge at Pea Island, where the ocean cut through north of Mirlo, along with beach nourishment in that area and extending into or thru Mirlo would solve the problem and help the beaches to rebuild themselves from what was stolen from them years ago and continues to be stolen now, the sand!

Respectfully,

Brenda and Robert Morris
29 White Birch Rd.S.
Pound Ridge, NY 10576
914 764-4056

Cc: Governor Beverly Perdue

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Smyre, Elizabeth A

From: Angela Nagele <anagele@gmail.com>
Sent: Wednesday, December 14, 2011 3:45 PM
To: Smyre, Elizabeth A
Subject: Beach Nourishment

Please support Beach Nourishment. It is vital to our commuinity.

Angela Nagele
North Carolina

Smyre, Elizabeth A

From: Abbott, Steve
Sent: Tuesday, January 03, 2012 4:58 PM
To: Smyre, Elizabeth A
Subject: from Contact Us on NC 12

From: Evan Nesch Phone: (252)202-1963 Email: enetsch@gmail.com

Comment History
Tracking Number: OPHXVIO9SY

Sent By: Evan Nesch Date/Time: 12/29/2011 3:32 PM
Comment:
Hi NCDOT Staff,

My concerns and suggestions are relative to the HWY 12 recovery plan, on Hatteras Island, NC.

I have lived in Kitty Hawk, NC for the majority of my life, worked in Rodanthe for the past 6 years in the summers and am now a senior at University of North Carolina at Wilmington, studying environmental science and economics. I have a particular interest in management of coastal areas.

I found out about the workshop on Ocracoke, but unfortunately will be out of the country on Jan. 5th and will not be able to attend. However I would still like to voice my opinion and recommendations if possible. Living on the OBX for the majority of my life and spending a lot of time back and forth between Kitty Hawk and Rodanthe, I have become very familiar with the issues associated with HWY 12. Just a month ago I finished writing a major research paper on management and recovery options for HWY 12, in particular the section for the Oregon Inlet to Mirlo Beach in Rodanthe.

In short, after much research and personal experience over the years, I concluded that small land bridges over problematic areas would be the best solution. I considered the ideas of moving the road west and extending the Bonner Bridge 17 miles in the Pamlico Sound to Rodanthe. Each solution has pros and cons, but by far a series of small land bridges is the best economical and environmentally practical solution. These land bridges would be about 10-12ft above the ground, and allow for general over wash during hurricanes and Nor Easters to wash under the road. The sections of elevated highway would not only be build over areas such as the newly formed inlet at the Ranger Station but also areas the require constant maintenance and are possible was out spots. For example the 2 miles immediately south of Oregon Inlet, where sand is being constantly cleared from the road, and the S-turns area just north of town. Footings for the elevated highway would be deep enough if the area for a small inlet during a storm and a lot of sand was lost from beneath the bridge the bridge would still stand. It would also eliminate annual maintenance and repair costs to these sections of unstable roads.

I would like to share my findings with NCDOT in hopes to help find the best fix for HWY 12 in respect to the economy and doing the best to preserve the Pea Island National Wildlife Refuge. Some areas of HWY 12 are more protected then others, and not every mile of the road needs to be moved. Obviously like any east coast barrier island, Pea Island is moving westward. And eventually after decades the road will be in the ocean. But with the average life span of a bridge being between 50 and 100 years, the phrase "permanent fix" is relative to this time period.

Access to Pea Island would still be available for bird watching, beachgoers, surfing etc, with the

sections of elevated highway, opposed to the long bridge option. Marsh, ponds and migratory bird areas wound not be destroyed by moving the road west either, which protection the valuable marsh and estuarine habitat is a major part of the National Wildlife Refuge's mission. Nor would the upfront cost associated with this option be as high as construction an entirely new bridge, as building small bridges over land is much cheaper than building a long one over water. Reasons for this solution are extensive, and range from safety, to short and long term economic benefits, user convenience, and reasons regarding environmental integrity.

I look forward to hearing back as soon as possible, and would like to help in any way that is needed in this project, and share a more in detailed description of my solution to HWY 12. Environmental Studies is my major, and issues such as coastal development and management is what my degree is intended for, and being a proud resident of the Outer Banks, I hope to see the best solution for HWY 12.

Please email me at enetsch@gmail.com

Or feel free to call me at 252-202-1963. I will not have phone access until January 15th, but will frequently be checking my email.

Thank You,
Evan Netsch

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Smyre, Elizabeth A

From: Morris Neuman <neuman@speechsoft.com>
Sent: Wednesday, December 14, 2011 11:09 AM
To: Office of the Governor; Joshua.bowlen@mail.house.gov; aaron_suntag@hagan.senate.gov; kara_weishaar@burr.senate.gov; Smyre, Elizabeth A; Tim.Spear@ncleg.net; warrenj@darenc.com; allenb@darenc.com
Cc: jmehta@speechsoft.com
Subject: Save our National Treasure and Valuable Resources - Hatteras Island, Rodanthe

Dear Elected Representative

I am writing to all who have been elected by the people of North Carolina to serve the people's interest about a matter that is of immediate importance to the people of North Carolina and all the people of the United States, the conservation of Hatteras Island. The Governor and almost all of you have personally witnessed the devastation of hurricane Irene unleashed on Hatteras island this past August. Now a decision will be made shortly by anonymous parties as to the future of Rodanthe - the Gateway town of Hatteras Island. I implore you all to proactively direct that decision to be in favor of beach nourishment.

If beach nourishment is abandoned as a viable option to consider at this next decision point it effectively abandons the people and businesses of Rodanthe to a future of ongoing erosion of the shoreline and all the tax generating property in that town that we have worked hard and spent millions to develop into one of the unique vacation destination for millions of Americans from all 50 states. It will be a squandering of our nations truly unique natural resources on the scale and level of the Grand Canyon or Yellowstone National Park.

My name is Morris Neuman and I am a home owner in Rodanthe. I came here in 2005 seeking an escape from the urban life of the big city New York. Although discouraged by locals from purchasing in Rodanthe due to erosion issues back then I was taken with the stark beauty and serenity of the area. I can now say that after traveling the whole east coast from Maine to the Florida Keys this slice of nature is truly unique in every way and once lost can never be recreated. Once Rodanthe is allowed to fall to the oceans relentless erosion in due time the neighboring Hatteras Island towns of Waves and Salvo will surely follow. No one can afford to lose such precious real estate.

I will never forget the first time I drove down highway 12 towards Rodanthe. After passing magnificent dunes and undisturbed landscapes of Pea Island I saw the town of Rodanthe on the horizon and it immediately brought to mind the vision Dorothy had when she first saw the Land of Oz on her quest to find the Wizard to get her home. I knew I was home. It is unimaginable that anyone could just make a decision on preserving this magical place based on strict cost analysis ignoring all other considerations that motivate millions of people to vacation here.

In support of our effort to make everyone ware of what Hatteris Island is all about we have created a website "Top 10 Reasons to Support Beach Nourishment", please visit our website http://tinyurl.com/mirlobeach created by the Mirlo Beach Home Owners Association outlining

Do not abandon our beach or our community of Rodanthe and do not destroy the natural beauty of the Pamlico Sound.

Morris Neuman
Speechsoft, Inc.
www.speechsoft.com
914-273-5560 x170
mail:neuman@speechsoft.com

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: JOSEPH F. NOCE

ADDRESS: 714 HARDING HWY, CARNEYS POINT NJ 08069

E-MAIL: joenoce@hotmail.com

COMMENTS AND/OR QUESTIONS:

After viewing the presentations, maps & materials, it seems as though all of the options have positive and negative aspects. After weighing all of the information, I find that the Nourishment alternative makes the most sense, but needs to be more extensive. Without beach nourishment, the village of Rodanthe would eventually die. Nourishment to the beach down to the Rodanthe Pier from the S-Curves area would invigorate the community, provide more beach habitat for wildlife at a fraction of the cost of other alternatives. Rodanthe is the Gateway village to Hatteras Island – It would be tragic to kill it with massive concrete bridges that effectively by pass this iconic village.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Smyre, Elizabeth A

From: Abbott, Steve
Sent: Wednesday, January 04, 2012 9:40 AM
To: Smyre, Elizabeth A
Subject: Contact Us comment on NC 12

Peter O'Donnell Phone: (772)801-5084 Email: surfset@att.net

Print

Comment History
Tracking Number: MTJ9TG8CUU

Sent By: Peter O'Donnell Date/Time: 12/27/2011 6:27 AM

Comment:
Please consider a park and walk option for the area around Rodanthe due to the numerous good surf spots that access will be lost if bridge option is chosen. This will negatively impact tourism if consideration is not given to access to these beaches. We visit once or twice a year and would consider not coming if you cut off public access to these beaches. We would start a campaign here in Florida to "boycott Hatteras" if a reasonable solution is not found to keep public access to these beaches.

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Smyre, Elizabeth A

From:	Obermeyer Ed <edobermeyer@cox.net>
Sent:	Friday, January 06, 2012 2:52 PM
To:	Smyre, Elizabeth A
Subject:	Roanthe Access
Attachments:	BPwave copy 2.jpeg

I have been surfing since 1964 and totally support full access to EVERYONE on this area of the outer banks. After surfer's surf and even before, they usually go to the local store and spend money on food and other essentials. If the wife is in tow, you can bet she will want more than food from the local economy and will spend serious dollars on clothing's and collectables. Let me know what I can do to help.

Ed Obermeyer
http://www.edobermeyer@cox.net

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Hyde **County**

NAME: BETTY JANE OELSCHLEGEL

ADDRESS: P.O. BOX 366 398 JACKSON CIRCLE OCRACOKE, NC 27960

E-MAIL: bjocracoke@embarqmail.com

COMMENTS AND/OR QUESTIONS:

My first visit to Ocracoke was in 1974. I moved to the island in 1977, when I was 25. I have worked for 35 years to build a life on Ocracoke. I have mortgages, businesses, employees, children and dreams, all dependent on a steady stream of guests to our island. If our life line, called Route 12 is tentative or worse yet, interrupted, the blood ceases to flow and the whole system falls apart. I don't expect this life line to be maintained on the backs of the environment or wildlife. I do expect "the powers that be" to find a middle ground solution. No one had any trouble taking my tax payments, mortgage payments or sales + use responsibilities. It would be unfair and immoral for you to let us dangle in the wind →

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

NCDOT

Ms. Beth Smyre, PE
NCDOT - PDEA
1548 Mail Service Center
Raleigh, NC 27699-1548

I'm begging you to do everything possible to make sure our life line is viable now and in the future.

Thank you,

B J Oelschlegel

B-67

Smyre, Elizabeth A

From: KERIOR@aol.com
Sent: Friday, December 09, 2011 11:13 AM
To: Smyre, Elizabeth A
Subject: Bonner Bridge Replacement Bridge Phase 2

Dear Ms: Smyre:

I am a sound front property owner in the Mirlo Beach area of Rodanthe, NC. I am writing to express my strong support for the Beach Nourishment option. The bridge options, particularly the bridge on the new location in the sound would have a devastating impact on the life in Rodanthe.

This sound front area of Mirlo offers a unique waterfront experience that would be ruined by a bridge in the sound. Kiteboarding and windsurfing are very popular in Mirlo Beach. Even by Hatteras Island standards, Mirlo offers unusually good sailing conditions. In the summer, it gets strong thermal winds and it is also very good for the fall and winter northeast wind directions. This sailing nirvana would be lost if a bridge is put in the sound.

Outside of sailing, the sound bridge would still have a strong detrimental effect on Mirlo Beach. It would ruin the sound side views that attract vacationers and severely harm the property values of all the homes on the sound side of Rt 12.

I strongly disagree with Table 2 of the Phase 2 impacts on the Rodanthe Area. It says the bridge on new location would have no impact on the Rodanthe Cohesion and Accessibility. It will ruin Mirlo Beach and without beach nourishment, it would leave the north end of Rodanthe susceptible to further erosion and lost of property value.

Considering the negative effect on the quality of life in northern Rodanthe and the higher costs of the bridge in the sound, I think the logical choice is to institute the beach nourishment option.

Thank you.

Keith Orr
393 Hannastown Road
Greensburg, PA 15601
724-689-9062

Smyre, Elizabeth A

From: Nelson Paul <nelson@nelsonpaul.com>
Sent: Thursday, November 17, 2011 9:38 AM
To: Smyre, Elizabeth A
Subject: Re: Highway 12 Options Meetings

Dear Ms. Smyre,

My name is Nelson Paul. I am commenting as someone who is knowledgeable of the situation on the Outer Banks having worked with the NC Division of Coastal Management as a Field Representative for their coastal permitting program on the Outer Banks in the 1980's.

Hurricane Irene severely impacted the Outer Banks and severed Highway 12 with a new inlet that NCDOT has chosen to bridge, rather than fill.

Because inlets move, the decision to bridge this inlet, rather than fill the inlet, has created a scenario that will most likely doom the economies of these Outer Banks communities over the next decade. Without an enormous commitment of scarce revenues, the shifting sands of this new inlet will likely make travel on Highway 12 intermittent and undependable.

However, worse than that, the decision to bridge the inlet has created a potential trap for residents and visitors that could likely result in the loss of life.

Imagine a scenario where a Cat 1 storm approaches the Outer Banks in mid-July. While evacuating the island, a vehicle strikes a structural member of the existing temporary bridge, making traversing the inlet by vehicle impossible. The bridge is closed. The NCDOT Ferry Service springs into action, but it is too many people and too little time. The storm increases to a Cat 3 and bears down on the island, roughly following the path of Hurricane Irene.

This is a reasonable scenario that we would have considered when I worked for the NC Division of Coastal Management. In this scenario there could be more than 10,000 people trapped in a life-threatening situation. And from our recent experience with Irene, we can easily see that people could die if it had been a stronger storm. You may want to review what happened on Ocracoke Island with Hurricane Alex in 2004.

Highway 12 being designated as the "Outer Banks National Scenic Byway" exacerbates this life and death situation. The Scenic Byway designation is intended to lure MORE tourists to the area in order to improve the local economy. Through this designation NCDOT is making substantial investments in promoting the Outer Banks as a tourist destination.

If the intent is to lure more people to the Outer Banks through the Outer Banks National Scenic Byway designation, then the responsibility for the safety of these people (as it pertains to the availability of highway transportation) rests squarely on NCDOT. The combination of an NCDOT policy that allows this inlet to remain while simultaneously implementing a NCDOT policy that promotes and encourages tourism on the Outer Banks is very dangerous. This is irresponsible and is unnecessarily endangering the public.

So, in conclusion, the NCDOT designation of the Scenic Byway is at cross purposes with the decision to allow the inlet to remain. If the inlet is allowed to remain, then the Outer Banks National Scenic Byway designation

needs to be suspended until a long-term, permanent solution is established and IMPLEMENTED regarding the inlet.

It is my opinion that this inlet should be filled as soon as possible. And future inlets, should they occur, should be filled also. This is the only long-term, cost-effective solution that MUST be established as official NCDOT policy.

Thank you,
Nelson Paul
(919) 231-4409

----- Original Message -----
From: Smyre, Elizabeth A
To: Nelson Paul
Sent: Wednesday, November 16, 2011 5:22 PM
Subject: RE: Highway 12 Options Meetings

Nelson-
Absolutely! You are welcome to send me any comments you might have.
Thanks,
Beth

Please note my phone number has changed, effective March 30, 2011- see below.

Beth Smyre, P.E.
Project Planning Engineer
NC Department of Transportation
Project Development & Environmental Analysis Branch
1548 Mail Service Center
Raleigh, NC 27699-1548
(919) ***707-6043***

From: Nelson Paul [mailto:nelson@nelsonpaul.com]
Sent: Wednesday, November 16, 2011 5:11 PM
To: Smyre, Elizabeth A
Subject: Highway 12 Options Meetings

Hi Beth, hope you are doing well today.

Can we submit comments regarding the breaches in Highway 12 through you?

Thank you,
Nelson Paul
(919) 231-4409

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Smyre, Elizabeth A

From: Dale Petty <dale@surforsound.com>
Sent: Monday, December 12, 2011 3:23 PM
To: Smyre, Elizabeth A
Cc: warrenj@darenc.com; Office of the Governor
Subject: Hatteras Island Hwy. 12 Beach Nourishment

https://sites.google.com/site/mirlobeachnc/

Ms. Smyre,

It is my understanding that the Merger Team will meet this Thursday to decide which Pea Island Hwy. 12 alternative(s) to advance for further study. I own Surf or Sound Realty on Hatteras Island. We manage approximately 450 single family vacation homes on Hatteras Island and accommodate approximately 100,000 visitors to CHNS each year. I am writing to request that beach nourishment be included as one of the alternatives for further study. A safe and reliable corridor is essential for visitor access to Cape Hatteras National Seashore and for Hatteras and Ocracoke Island residents and property owners. Beach nourishment is an appealing option to protect the Hwy. 12 corridor through Pea Island for several reasons. I have attached the link to a web site that highlights the many positive benefits of beach nourishment.

Thank you,

Dale Petty
CEO, Surf or Sound Realty

Smyre, Elizabeth A

From: Lou Ann Phelps <lphelps@selcnc.org>
Sent: Friday, January 20, 2012 5:00 PM
To: Smyre, Elizabeth A
Subject: Bonner Bridge Replacement Project (TIP No. B-2500)
Attachments: 01-20-12 Comments to NCDOT re Phase II Options.pdf

Please see the attached comments submitted on behalf of Defenders of Wildlife, National Wildlife Refuge Association, and the Southern Environmental Law Center, regarding the above-referenced project.

Thank you for your consideration.

Lou Ann Phelps
Administrative Legal Assistant
North Carolina State Bar Certified Paralegal
SOUTHERN ENVIRONMENTAL LAW CENTER
Tel.: (919) 967-1450
Fax: (919) 929-9421
laphelps@selcnc.org

PLEASE NOTE OUR NEW ADDRESS:

601 West Rosemary Street, Suite 220
Chapel Hill, North Carolina 27516-2356

Our telephone, fax, and e-mail addresses have not changed.

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: JAMES F. + VICKI W. PIERSON

ADDRESS: P.O. BOX 1195 OCRACOKE N.C. 27960

E-MAIL:

COMMENTS AND/OR QUESTIONS:

Nice presentation, excellent visuals charts/photos. Looks like a good plan finally. This must happen the Outer Banks would be devasted without the new bridge. Tourism is our lifeline we have alot of issues, but this definitely would be an asset. I hope the completion date of 2015 can be achieved.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Smyre, Elizabeth A

From: hpisek@aol.com
Sent: Friday, December 02, 2011 4:54 PM
To: Smyre, Elizabeth A; norburn@pbworld.com
Subject: Fwd: Dare County Bonner Bridge replacement

I meant to say: "Boys and their TOYS scenario."

-----Original Message-----
From: hpisek <hpisek@aol.com>
To: bsmyre <bsmyre@ncdot.gov>; norburn <norburn@pbworld.com>
Sent: Fri, Dec 2, 2011 12:00 pm
Subject: Dare County Bonner Bridge replacement

P-L-E-A-S-E consider the 17-mile-long bridge. In the long run, it will save the state millions of dollars trying to keep Highway 12 passable on Hatteras Island. It's almost a "boys and their boys" scenario. They have waaay tooo much fun playing with all that construction equipment.

Thank you.

Helen and Irv Pisek
5208 Birch Lane
Kitty Hawk, NC 27949

Smyre, Elizabeth A

From: Warren Powell <wpowell@prestigecapital.com>
Sent: Monday, January 09, 2012 8:15 AM
To: Smyre, Elizabeth A
Subject: Outer Banks

Dear Beth,

I have been traveling to the Outer Banks for the past 30 years primarily to surf and fish. It would be a travesty, if the new road/bridge options did not include some way for people to reach some of the best areas for surfing on the entire East Coast. Some of my greatest memories are crossing the Bonner Bridge and running across the dunes to see amazing surf, and I hope to be able to share these experiences with my 2 sons.

Please consider all access options and understand we spend a good bit of money when traveling to and surfing on the OBX.

Cordially,

Warren Powell

Warren Powell
Sales Director Southeast Region
Prestige Capital Corporation
919-349-2866
201-944-9477 fax
wpowell@prestigecapital.com

Flexible Accounts Receivable Funding Solutions

Smyre, Elizabeth A

From: jpquinn739@comcast.net
Sent: Wednesday, December 14, 2011 5:35 PM
To: Smyre, Elizabeth A
Subject: Rodanthe

Dear Ms. Smyre,
Please take into consideration beach nourishment as opposed to the bridge alternative which will devastate Rodanthe.
Sincerely John Quinn owner of 23176 Pappys Lane Rodanthe.

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: Leslie J Robinson

ADDRESS: PO Box 62 Rodanthe NC 27968

E-MAIL: lesliejoanrobinson@hotmail.com

COMMENTS AND/OR QUESTIONS:

I am for using a smaller bridge at "Sturns" plus beach re-nourishment. It is hard enough to live on this island - please disturb our villages as little as possible - Everything is disappearing as it is - we don't need one fewer convenience store / gas station.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: Harry Schiffman

ADDRESS: PO B 489, Manteo, NC 27954

E-MAIL: sdmarina@embarqmail.com

COMMENTS AND/OR QUESTIONS:

Suggest a trial project on Hatteras Island with the use of a Floating Wave Attenuator such as one developed by Elemental Innovations out of N.J. in area of high impact erosion - If successful, it would greatly enhance the longevity of beach nourishment.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME: [illegible] STARSMAN

ADDRESS: [illegible]

E-MAIL: [illegible]

COMMENTS AND/OR QUESTIONS:

PLEASE SEND ME THE MINUTES FROM THE MERGER MEETING

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Resolution for Immediate and Permanent Repair of Highway 12 on Hatteras Island

Whereas, Commerce on Hatteras and Ocracoke Islands is deemed vital to the economies of Dare, Hyde and surrounding counties; and

Whereas, Highway 12 is essential to the residents, visitors and commerce of Hatteras and Ocracoke Islands; and

Whereas, the bridge being constructed on Highway 12 between Oregon Inlet and Rodanthe is temporary and inadequate to sustain the needs of the residents, visitors, and economies of Hatteras and Ocracoke Islands

BE IT RESOLVED, by the membership of the Albemarle-Pamlico Republican Club representing 14 Northeastern North Carolina counties:

The need exists and it is requested that Highway 12 be immediately and permanently repaired.

ADOPTED unanimously this 6th day of October, 2011.

Bob Steinburg

Bob Steinburg, President

103 South Granville Street

Edenton, N. C. 27932-1831

252-482-2404

RSteinburg@aol.com

www.al-pam.com

Smyre, Elizabeth A

From: CINDY THORNE <cindy_thorne2000@yahoo.com>
Sent: Tuesday, January 17, 2012 9:18 AM
To: Smyre, Elizabeth A
Subject: NC 12

Please keep NC 12 through Pea Island open as close as possible to what is there now. Do not put the 7 mile bridge out in the sound. We are losing enough beach on the National Seashore we can not afford to lose more. I own a house in Salvo and in a few years will be retiring. Pea Island is my favorite place for just walking and shelling. The way it is going now there won't be any place left to access the beach so I guess I wasted all my money on buying a house and who would want to buy it if there is no beach. Please don't give into the environmental people or the
Fish and Wildlife people.

Thank you.

Cindy Thorne
161 Nemec Lane
West Newton, Pa. 15089
724-331-1581

Smyre, Elizabeth A

From: outerbanks@surfrider.org
Sent: Wednesday, December 14, 2011 6:00 PM
To: Smyre, Elizabeth A
Subject: NC 12 options

Dear, Ms. Smyre:

On behalf of the Outer Banks Chapter of the Surfrider Foundation, we would like to offer some comments regarding the breaches along NC 12. While we're currently gathering a more official statement to submit for the comment period that ends January 20, we also understand there is a meeting tomorrow, so we thought we should voice a broad sense of what our overall stance will be. That stance, simply put, is that the DOT work as much as possible toward preserving access to surf breaks surrounding both those breaches, no matter what plan perseveres.

You may not be aware, but those particular stretches of beach are prime surfing areas. Many Outer Banks locals move to the area just to surf the Pea Island coast. And of them all, the area just north of Mirlo -- commonly called S-Turns -- is among the most famous and respected on the entire Eastern Seaboard. (Surfer Magazine named it one of its top 100 surf spots this past year.) This means plenty of surf tourism dollars for the immediate area. Sometimes the only business in the winter months when frequent storms make it a valuable resource for surfers from surrounding states as well.

Most of the time, these surfers park on the side of NC 12, which -- although easy for the surfers -- we also understand can cause conflicts with normal traffic. Our concern is that one of the bridge options will win out without any consideration of the existing surfing population who use the resource. We're hoping NC 12 and Dare County can seize this opportunity to provide some parking and access to prevent future conflict. We're not sure what that solution looks like, but it seems reasonable there is some way to look at all the options and figure out parking and access solutions for each, so that no matter what plan comes to fruition, the existing surfing population --- both local and visitor -- can continue to enjoy the surfing resource and the residents of Rodanthe can benefit from the increased business traffic without any negative impacts.

On behalf of the Surfrider Foundation's 125+ local members -- and 50,000 nationwide members -- we request you consider these options as you move through the decision-making process.

Thank you for the time and consideration. And we will file a more official request before January 20.

Sincerely,

Matt Walker
Vice Chair
Surfrider Foundation, Outer Banks Chapter

Smyre, Elizabeth A

From: Heinz Scheidemandel <hynessch@cox.net>
Sent: Monday, November 28, 2011 7:50 PM
To: Smyre, Elizabeth A

Dear Ms.Smyre:
I have been in Hatteras village for over 50 years and I can assure you the only sensible and financially feasable long term solution is to return to a Ferry System. This is flexible and relatively inexpensive. Everything else is a waste of tax payer's money!
H.Scheidemandel, Falls Curch,Va.

Smyre, Elizabeth A

From: Fred Walters <fewalt@ntelos.net>
Sent: Thursday, December 08, 2011 12:19 PM
To: Smyre, Elizabeth A
Subject: Bridge to nowhere

If the NPS keeps closing beach access, or a total closure is eminent, NO bridge will be needed!!!!!!

Fred Walters
Troutville, Va

Smyre, Elizabeth A

From: John Wasniewski <John@shoshintech.com>
Sent: Friday, January 20, 2012 1:28 PM
To: Smyre, Elizabeth A
Cc: r.matt.walker@gmail.com; ivyray@earthlink.net
Subject: Rodanthe S-Turns Design Comments - Surfrider Foundation
Attachments: RodantheSTurnsAccess.pdf; PreserveSTurnsAccess.xls

Dear Beth Smyre:

On behalf of the Surfrider Foundation (www.surfrider.org), I wish to submit the attached letter and petition listing to the N.C. D.O.T. for consideration of design impacts for the area known as S-Turns in Rodanthe, Dare County. The Excel document list all signers of the petition mentioned in the letter. Especially telling are the individual comments that users of the resource have made from all over the world regarding this site.

S-Turns is a valuable economic and natural resource for North Carolina. Please consider preserving access to this location in all D.O.T. planning.

Sincerely,

John Wasniewski
Chairman
Outer Banks Chapter of the Surfrider Foundation

Smyre, Elizabeth A

From: shelley <sweisberg@cox.net>
Sent: Tuesday, December 20, 2011 11:31 AM
To: Smyre, Elizabeth A
Subject: RE: Beach Nourishment Top Ten Reasons

Dear Beth,

The news from the Merger Team meeting in Raleigh is most disappointing.

As I understand, US Fish & Wildlife is adamantly opposed to Beach Nourishment and would not move forward til it was removed from consideration.

I believe, NCDOT is favoring keeping the bridge in the existing right of way on Pea Island and maintaining a strong position supporting Beach Nourishment to protect both the Bridge and the road.

Meanwhile Rodanthe being in National Park jurisdiction must have a permit issued from NPS.

Perhaps consideration should be given to the source of the disappearing Pea Island - Rodanthe sand…Oregon Inlet's jetty?

Dixon and Pilkey's research (The Corps and the Shore, Island Press, 1996) speaks to the inevitable loss of sand from Rodanthe if only one jetty was constructed. Time has shown this prediction true. Let's stop dredging Pea Island - Rodanthe's sand out of Oregon Inlet. Let's abate the issue of disappearing sand by re-examining the jetty situation.

Please consider investigating the potential. We need your help.

Sincerely,

Shelley & Jeff Weisberg
22012 Sixteenth August St.
Rodanthe, NA 27968

From: Smyre, Elizabeth A [mailto:bsmyre@ncdot.gov]
Sent: Wednesday, December 14, 2011 4:07 PM
To: shelley
Subject: RE: Beach Nourishment Top Ten Reasons

Shelley-
Thank you for your comments! Please let me know if you have any further comments or questions.
Thanks,
Beth

Please note my phone number has changed, effective March 30, 2011- see below.

Beth Smyre, P.E.
Project Planning Engineer

NC Department of Transportation
Project Development & Environmental Analysis Branch
1548 Mail Service Center
Raleigh, NC 27699-1548
(919) ***707-6043***

From: shelley [mailto:sweisberg@cox.net]
Sent: Tuesday, December 13, 2011 7:54 PM
To: Smyre, Elizabeth A
Subject: Beach Nourishment Top Ten Reasons

Dear Beth,

I am a home owner in Mirlo Beach, a family-oriented community on the outer banks of North Carolina located at the north end of the village of Rodanthe -- the gateway to Hatteras Island. It is a beautiful place to live and vacation.

Right now, however, we are simply trying to survive! We were devastated by Hurricane Irene and are at the center of the debate on beach nourishment versus a bridge at the Rodanthe hot spot on Hatteras Island. Please give beach nourishment the consideration it deserves. Your actions affect our future.

The Top 10 Reasons to Support Beach Nourishment

1.Beauty. The ribbon of sand that is the Outer Banks of North Carolina provides some of the most beautiful beaches in the world, some of the most beautiful wildlife, some of the most beautiful sunrises and sunsets. Nourishment preserves this beauty. Let's be honest, bridges are ugly.

2.Working with nature. Nourishment maintains a beach with sand matched to that beach. Pumping sand back onto a beach is simply using a human force to repair damage done by a natural force -- erosion. No concrete, no steel, no permanent manmade changes to nature.

3.Permanence. It is sometimes said that beach nourishment is not a permanent solution, but that just means that the nourishment must be repeated. This is how New York, New Jersey, and Delaware maintain their beaches (along with many states and countries). The Final Environmental Impact Statement (FEIS) estimated that the nourishment cycle for Rodanthe would be once every 4 years. However, we will never know until we try it. It could be shorter; it could be longer. Thus, we should nourish as soon as possible to learn the facts.

4.Speed. Nourishment is the fastest way to protect NC 12. The main thing that delays nourishment, is getting the needed permits. In South Nags Head, that took several years, which is about how long it takes to design and build a bridge. We assume that a project this big and important will be fast-tracked by the appropriate government agencies. NC 12 needs protection ASAP!

5.Flexibility. Because nourishment is an ongoing solution, it can be repeated sooner or later depending on conditions. It leaves open the possibility of better solutions 20 years down the road based on new technologies. A bridge can always be built later if experience proves that nourishment is too costly or ineffective. A bridge cannot be "unbuilt" later, if nourishment is shown to be better or if better alternatives emerge. A bridge cannot even be stopped halfway if cost overruns show it to be be much more expensive than expected.

6.Saves money. The cost of a bridge in Rodanthe is $114 million to $240 million (NCDOT estimate in 2006 dollars, $128MM to $270MM in 2011 dollars) and $169 million to $212 million (our estimate in 2011 dollars based on figures provided by Coastal Science and Engineering). However, build a bridge today, pay for it today. Begin beach nourishment and you pay only 1/12 of the total cost today, and the "present value" cost of nourishment is only $106 million to $133 million.

7.Due diligence. The BIG question with nourishment is whether or not sand can be found. This is why nourishment needs to be one of the alternatives selected by NCDOT and the Merger Team on December 15 for additional study. What the experts have said is that there is very little sand in Wimble Shoals (several miles from Rodanthe), but there is a lot of sand in Platt Shoals, which is 6 - 9 miles north and there may be sources of sand in between. Experts also say that even 10 - 20 miles can be economically feasible. We need to know where the sand is!

8.Preserves the Hatteras Island economy. All of the bridge alternatives will have a devastating effect on the cultural and economic life of north Rodanthe (not just Mirlo Beach). Popular uses such as fishing, birding, surfing, wind surfing, and kite boarding will all be negatively affected or eliminated. Vacation rentals and property values will plummet. The Mirlo Beach subdivision alone has a tax value of over $50 million, and the rest of northern Rodanthe is worth at least that much. Thus, the annual tax contribution to Dare Co. is over $400,000. Over the 50-year life of a bridge, that is $20 million. Add to that the rental revenue and retail sales to vacationing renters and it is clear that bridges will result in a substantial financial loss to our community. ... and our community is one of the few that send more tax revenue to Raleigh than is spent here on government services.

9.Rodanthe is the test case for all of OBX. All of Hatteras Island is experiencing erosion problems: private homes in the villages, Pea Island WIldlife Refuge, and the Cape Hatteras National Seashore. What happens in Rodanthe will be a model for everywhere else. Do we really want a policy of simply building bridges and abandoning the current NC12 and the lands it supports? Is it right to just let the island dissolve into the Atlantic, when nourishment might keep the place just like it is now?

10.Please listen to those who your decision effects. Our future rest in your hands. Please act responsibly.

Sincerely,

Shelley & Jeff Weisberg
22012 Sixteenth August Street
Rodanthe, NC 27968

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COMMENT SHEET

Bonner Bridge Replacement Project
Public Workshops – Phase II
TIP No. B-2500
Dare County

NAME:

Westervelt, Frederic B.

ADDRESS:

25 Howard St; PO Box 505; Ocracoke, NC 27960

E-MAIL:

fwestervelt@pol.net

COMMENTS AND/OR QUESTIONS:

It would be well if we could, hypothetically, set aside all environmental issues and express the best engineering option- not just alternatives- that would meet the goal. This would sharpen the argument and lead to better decisions. At present we usually find that the environmental objections are introduced preemptively at an early stage, thus cutting off constructive thinking.

Keep your eyes on the prize- the primary goal of maintaining road access. This must trump wildlife- flora and fauna- and the niceties of land management.

USFWS and NPS possessiveness have for too long heavily compromised us. Surely there are ways, legislatively or other, to revise the current climate that have crowned as king the Organic Act of 1916 and subsequent E.O.s .

Current concerns about inadequate dredging of Rollison Channel and Hatteras Inlet are relevant to this project. If this is not attended to properly NC 12 is of no use to Ocracoke. If The Corps of Engineers have no federal funding the State of NC must step in: after all, this is a State road and we are State citizens.

Thank you for your hard work. Good luck.

Comments may be mailed by January 20, 2012 to:

Ms. Beth Smyre, PE
NCDOT – Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Email: bsmyre@ncdot.gov

Norburn, Robert E.

From: Page, John
Sent: Wednesday, November 30, 2011 4:27 PM
To: Norburn, Robert E.; Smyre, Elizabeth A
Subject: Bonner Citizen Contact

I received an information line call from an Avon property owner. He was upset that no decision had been made on replacing Bonner Bridge and that the Pea Island breach bridge was too short. I explained that a design-build contractor had been selected to build the replacement Oregon Inlet Bridge. I also indicated that the bridge over the breach was a short-term fix and that NCDOT had started planning the long-term fix. I said one alternative in that area was a 1.5-mile long bridge. I offered to put him on the mailing list and he agreed.

Mr. William E. Wilson
5805 Kipling Court
Baltimore, Maryland 21212-3735

John

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January 20, 2012

VIA EMAIL AND U.S. MAIL

Ms. Beth Smyre, P.E.
NCDOT - Project Dev. & Env. Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548
bsmyre@ncdot.gov

RE: Bonner Bridge Replacement Project
December 2011 Proposed Options for NC 12 (TIP No. B-2500)

Dear Ms. Smyre:

Thank you for the opportunity to comment on the options proposed by the North Carolina Department of Transportation ("NCDOT") for the "Phase II" portion of the Bonner Bridge replacement project, TIP Project Number B-2500 (the "Project"). These comments are submitted on behalf of Defenders of Wildlife, the National Wildlife Refuge Association, and the Southern Environmental Law Center.

None of the proposed alternatives will provide a viable long-term solution for the ongoing transportation crisis on Hatteras Island. The options will not satisfy Governor Perdue's request for a permanent solution to transport people to the southern Outer Banks. Moreover, they will run afoul of federal law. After two decades of study, it should be clear that the only viable long-term solution is to re-route the transportation corridor off the island onto a bridge that bypasses the most unstable portion of the island and/or onto ferries.

As discussed in more detail below, the Phase II plan is flawed in the following respects:

1. The selected alternative for the Project constitutes illegal segmentation in violation of the National Environmental Policy Act ("NEPA").

2. Outdated, skewed cost estimates can no longer justify construction of a replacement bridge over Oregon Inlet in Phase I and elimination of the Pamlico Sound Bridge alternative as the solution for the entire Project.

3. The problems with each of the individual alternatives being considered for Phase II that have been previously identified still remain and prevent their implementation.

I. General Comments

A. Background

In the Environmental Assessment ("EA") issued May 7, 2010, and the Record of Decision ("ROD") issued on December 10, 2010, NCDOT and FHWA approved and selected an alternative called the "Parallel Bridge Corridor with NC 12 Transportation Management Plan" (the "Selected Alternative"). The Selected Alternative segments the Project into several parts: "Phase I" (an initial replacement bridge over Oregon Inlet) and "Later Phases" (monitoring Highway NC 12 through Pea Island National Wildlife Refuge (the "Refuge") and maintaining it in place while the island on which it is located, Hatteras Island, erodes and moves westward). The EA and ROD also refer to the Later Phases as "Future Phases" and "Phases II-IV," and state they will "mix and match" methods of maintaining the highway from methods previously identified in the NEPA process as well as other, yet-to-be-identified methods.

NCDOT and FHWA selected this alternative and rejected the less environmentally damaging Pamlico Sound Bridge alternative on the theory that the latter was not practical because all of its costs would be borne up front, while the Selected Alternative could proceed in phases, with fewer up-front costs and much of the cost being spread out over decades. Hurricane Irene in August 2011 (along with Tropical Storm Ida in November 2010, and numerous other storms over the years) proved the fallacy of that theory. Hurricane Irene created two new inlets and disrupted NC 12 for seven weeks. One new inlet is located near the mid-point of the Refuge (the "Refuge Inlet") and has been temporarily bridged. A second new inlet is located at the southern end of the Refuge near the village of Rodanthe (the "Rodanthe Breach"), and it has been temporarily filled and shored up with sandbags.[1]

Governor Perdue has asked NCDOT to develop a long-term solution to the problem of maintaining NC 12 through the Refuge. In a series of public meetings beginning December 5, 2011, NCDOT presented alternatives for long-term solutions to the recurring problems caused by breaches of NC 12 in the southern two-thirds of the Refuge, leaving the recurring problems in the northernmost portion of the Refuge to be addressed later. The materials handed out by NCDOT at the public workshops are

[1] We understand that the banks of the Refuge Inlet are already eroding to the point that emergency measures are already being taken to prevent another breach of NC 12. Lauren King, "Lane Closures on N.C. 12 Bridge at Pea Island to Begin Wed.," The Virginian-Pilot (Jan. 17, 2012). We also understand that the fill material and sandbags supporting NC 12 at the Rodanthe Breach are also endangered by ongoing erosion.

hereinafter referred to as the "NCDOT Handout." These comments address those alternatives.

B. Segmentation

According to the EA and ROD, NCDOT and FHWA plan to select the methods for accomplishing the Later Phases from the list of options that were explored in previous NEPA documents but were rejected by federal agencies in the merger process. They may also turn to additional, undisclosed methods that were not revealed or explored in any NEPA document. NCDOT and FHWA plan to delay the decision on which of these methods – each impermissible for various reasons – until the Phase I bridge is already built and renders the maintenance of NC 12 in the Refuge necessary.

However, the damage caused by Hurricane Irene has forced NCDOT and FHWA to confront the unsustainable NC 12 situation sooner than they expected. The Refuge Inlet and the Rodanthe Breach destroyed sections of NC 12 in two of the four locations where government scientists have long predicted new inlets would form. NCDOT and FHWA are now tasked with developing a long-term plan to restore or bridge those two sections of NC 12 as "Phase II," before even beginning construction of Phase I. According to news reports, NCDOT plans to award contracts for the northern-most portion of Phase II by August 2012 and for the Rodanthe area by December 2012. Construction on the Bonner Bridge replacement is not slated to begin until 2013 and is expected to last three years. The fact that Phase I and Phase II will now effectively proceed simultaneously demonstrates that the two phases are one project, the effects of which must be considered together.

Despite the fact that the Merger Team could not fully support any of the alternatives now proposed for Phase II at the time they were originally considered, NCDOT has proffered them again to the public, having failed to develop any different, workable options to keep the highway stable. Yet the problems that prevented the Merger Team from supporting each of these options still remain: they cannot receive necessary permits from various federal and state agencies, they depend upon easements that the State does not own, and/or they cannot be found compatible with the Refuge as required by the National Wildlife Refuge System Improvement Act of 1997 (the "Refuge Act").

NCDOT and FHWA cannot legally ignore the impediments and impacts of the Phase II alternatives by segmenting the difficult, environmentally damaging portions of the Project until there is no other choice but to construct them. Under CEQ's NEPA guidelines, when an agency is considering "connected actions" that "are related to each other closely enough to be, in effect, a single course of action," their impacts must be considered together. 40 C.F.R. §§ 1502.4(a), 1508.25(a). Here, the bridge over Oregon Inlet and the alternatives for addressing the damage inflicted by Hurricane Irene

constitute such "connected actions," and they must be considered a single transportation project, for which the impacts must be considered altogether.

The new breaches/inlets and NCDOT's newly accelerated timetable clarify that NCDOT cannot divide the Project into separate phases and consider only the environmental effects of Phase I at this time without violating NEPA. As we explained in previous comments,[2] NCDOT and FHWA's phased plan constitutes illegal segmentation by evaluating the environmental impacts of the Project piecemeal, and allowing the selection for Phase I to force choices for Phase II. The Project in this case encompasses the entire transportation corridor from Bodie Island to Rodanthe, so evaluating each "phase" of the Project separately violates NEPA. With multiple phases of this Project now underway simultaneously, it is even more apparent that NEPA documentation must evaluate the entire Project as a whole in order to analyze its environmental impacts adequately. A complete evaluation of the Project as a whole must include re-evaluating the choices made concerning Phase I.

To do otherwise – to treat Phase I's replacement bridge as a *fait accompli* when planning Phase II – impermissibly forces the decision on the Later Phases. It irretrievably commits resources to the Phase I replacement bridge in such a way that it forces the Later Phases to go forward without regard to their environmental consequences. If the environmental consequences and costs of the alternatives for the Later Phases had been considered thoroughly and realistically, the agencies would likely have selected a different alternative altogether in the ROD.

Segmentation is also inappropriate because it leaves users of NC 12 and Hatteras Island residents and visitors vulnerable to a foreseeable breach outside the two current Phase II sites. The proposed options do nothing to address the ongoing problems at the Canal Zone hot spot, for example, and another breach may open in or near the S-curves area in the very near future. NCDOT's approach suggests that, as with the Hurricane Irene breaches, it will wait until the next crisis arises before attempting to patch it and then retrospectively attempt to develop a stable solution for that particular site. This piecemeal approach falls far short of the comprehensive, long-term solution for the NC 12 corridor required by NEPA and, furthermore, requested by Governor Perdue.

C. Inaccurate Cost Estimates

The alternatives for Phase II cannot be considered without updated and accurate cost estimates, for all alternatives, including a Pamlico Sound Bridge and modern ferries, as requested by the Corps of Engineers in its letter to NCDOT of January 5, 2012. The Pamlico Sound Bridge alternative cost estimates should include estimates for a version of

[2] Comments dated June 21, 2010, on the EA (pp. 6-9); Comments dated October 27, 2008, on the 2008 Final Environmental Impact Statement ("FEIS") (pp. 25-27).

that bridge that does not travel as far away from Hatteras Island into the sound, but rather incorporates new bridge-building technologies that allow construction closer to the Refuge without harming submerged aquatic vegetation. Such a bridge would be shorter and presumably less expensive than the 17.5-mile version previously priced.

Although the Merger Team selected the Pamlico Sound Bridge alternative for detailed study in 2003 and generally acknowledged it to be the least environmentally damaging alternative, NCDOT and FHWA rejected it in favor of the current approach, arguing that the up-front costs of the long bridge would be too expensive while the phased approach or transportation management plan (TMP) alternatives would supposedly have fewer up-front costs with the majority of costs being spread over decades. This argument no longer justifies rejection of the Pamlico Sound alternative.

As explained above, after Hurricane Irene, Phases I and II will now overlap significantly and progress virtually simultaneously. We have attached a map showing the location of the three portions of the Project that are currently planned, created using data obtained from NCDOT. As is evident from the map, the currently planned Project portions account for at least seven to 10 miles of bridge and two-thirds of the length of the entire Project, leaving little to be accomplished in the Later Phases. In addition, in light of the current rate of erosion of the banks of the Refuge Inlet, we understand that the bridge over that portion of the Refuge might need to be much longer to last more than a few years. Accordingly, the combined up-front costs of the currently planned portions will surely begin to approach the up-front costs of the Pamlico Sound alternative. The fact that NCDOT is proposing to fund three large-scale construction projects simultaneously, even though the total cost of these projects is likely to be comparable to the less environmentally damaging Pamlico Sound Bridge, should compel reconsideration of the prior rejection of the Pamlico Sound Bridge solely on the basis of funding.

The cost estimates provided in the NCDOT Handout (p. 11) date from 2006. Even at that time, federal agencies – including the National Marine Fisheries Service ("NMFS"), Department of the Interior ("DOI"), and the Army Corps of Engineers – questioned the accuracy of those estimates. In 2006, when cost estimates of various alternatives were updated from the 2005 Supplemental Draft Environmental Impact Statement, the cost of the Pamlico Sound Bridge alternative rose inexplicably disproportionately as compared to the other alternatives. Then, in 2011, the Phase I Oregon Inlet replacement bridge contract was awarded for a mere 59% of its previously estimated price. The Pamlico Sound Bridge would likely see similar savings, and might even realize greater savings to the extent that its 2006 estimated price appears to have been inflated relative to the estimates for other alternatives.[3] In addition to the passage of

[3] See, *e.g.*, U.S. Army Corps Comments on Supplement to SDEIS (Apr. 18, 2007), at p. 1 (questioning the 123% increase for the Pamlico Sound Bridge as compared with the 36% increase for the Oregon Inlet bridge).

time, much has changed since the 2006 estimates were generated, including construction costs, recession and inflation, the creation of new inlets in the Refuge, and other changes to the island's geography.

The chart below shows the progression of cost estimates and contracts.

	Short / Parallel Bridge Alternative	**Long / Pamlico Sound Bridge Alternatives**
NCDOT's 2005 Estimates (from NCDOT's Supplemental Draft Environmental Impact Statement, Sept. 12, 2005, p. 2-110)	"All Bridge Alternative" **$493 million** (incl. $191 million for Phase I Oregon Inlet bridge, plus remainder for route to Rodanthe)	**$420 million to $425 million**
NCDOT's 2006 Estimates (from NCDOT's Revised Final Section 4(f) Evaluation, Oct. 9, 2009, pp. 26, 27, Apx. G-3)	Parallel Bridge Alternatives: **$602 million to $1.524 billion** (incl. up to $368 million for Phase I Oregon Inlet bridge, plus remainder for route to Rodanthe)	**$943 million to $1.441 billion**
NCDOT's 2006 Estimates for Phase II only (from NCDOT Handout, p. 11)	**$331 million to $1.136 billion** (for Phase II only)	**N/A**
NCDOT's 2011 Estimates (from NCDOT Handout, p. 7, and article by Bruce Siceloff, News & Observer, 12/15/11, quoting NCDOT)	**$216 million** – contract for Phase I Oregon Inlet bridge **$211 million to $387 million** – NCDOT estimates for Phase II alternatives over new Hurricane Irene breaches Total: **$427 million to $603 million**	**$553 million to $846 million ??** (if actual contract came in at the same 59% discount from 2006 estimate as the Phase I Oregon Inlet bridge)

NCDOT states that it will develop more accurate cost information once the proposed options have been narrowed down through the public comment process and Merger Team meetings. However, this sequence of events deprives the public of vital information it needs before it can accurately evaluate these options. Updated cost information should have been provided to the public at the outset to inform the comments. Moreover, NCDOT and the Merger Team need accurate cost information in order to select or eliminate options reasonably. Waiting until an alternative has been selected to develop

accurate cost information prevents sound agency decision-making and risks impermissible reverse-engineering of cost estimates to support predetermined outcomes.

Moreover, the cost estimates for Phase II provided by NCDOT fail to include key components of the Project. First, all cost estimates should include the cost of replacing the Bonner Bridge (Phase I) since they are part of the same Project. They also should include the costs of foreseeable direct and indirect impacts of these options, including mitigation costs, emergency repairs of storm damage throughout the construction of the phased approach, the permanent ongoing maintenance of an elevated roadway located in the Atlantic Ocean that will result from the phased approach, etc. For instance, NCDOT has incurred costs to restore NC 12 over the two Hurricane Irene breaches and is currently incurring additional costs to shore up the bridge over the Refuge Inlet; these costs should be considered part of Phase II. Finally, despite frequent mentions of a monitoring program in previous NEPA documents, there are no cost estimates provided to reflect the costs of such a program for each of the proposed alternatives. Providing all of this information to reflect the true cost of each alternative would help the agencies and the public fairly compare these alternatives with other alternatives such as a Pamlico Sound Bridge or modern ferry system.

In sum, many factors – including the fact that Phases I and II will proceed nearly simultaneously, the likelihood that the Pamlico Sound Bridge alternative would cost far less than previously estimated, the likelihood that the true cost of Phases I and II will approach that of a Pamlico Sound Bridge, and the possibility that any sources that could fund Phase II might also be available to fund a Pamlico Sound Bridge – all mandate a re-examination and revision of the cost estimates previously provided to the public and the Merger Team.

II. Specific Problems with Each of DOT's Proposals for Pea Island and Rodanthe

Each of the alternatives currently proposed by NCDOT for Phase II is taken from options first proposed in 2005 and analyzed extensively since then. None of these options was eventually selected as the preferred alternative due to the serious legal and/or engineering problems inherent in each of them, and the fact that the same problems remain militates in favor of re-evaluating the plan for the entire Project.

According to the NCDOT Handout, p. 4, the current Phase II "Beach Nourishment" alternative equates to the 2008 FEIS's Nourishment alternative. The current Phase II "Bridge Within Existing NC 12 Easement" alternative equates to the 2008 FEIS's "Phased Approach." The current Phase II "Bridge/Road on New Location" alternatives described in the NCDOT Handout equate to the 2008 FEIS's "Road North/Bridge South" and "All Bridge" alternatives.

Because all of these options are virtually identical to past alternatives rejected by the Merger Team, our specific comments on the current proposed options are similar to (and incorporate by reference) our comments on the 2005 Supplemental Draft Environmental Impact Statement (SDEIS), the 2007 Supplement to the SDEIS, the 2008 FEIS and Section 4(f) Evaluation, the 2009 Revised Final Section 4(f) Evaluation ("Revised 4(f) Evaluation"), and the 2010 EA.

Finally, it is striking that NCDOT essentially concedes it has no viable plan for a long-term solution to transportation problems for the Rodanthe area. NCDOT Chief Operating Officer Jim Trogdon has stated that even after six years of studying the current proposed options for Rodanthe, "there's no alternative that stands out yet."[4] Moreover, even the NCDOT Handout, Table 2 (p. 10), lists "Potential Constraints" that will be fatal to each of the Rodanthe options:

- The Beach Nourishment option is "[n]ot likely to be found compatible with Refuge's mission and purpose; sand quality and sand availability . . . is [sic] a concern," as is the "extensive dredging" that will be required to obtain the sand and the frequency with which nourishment would have to be repeated.
- The Bridge on New Location option is "[n]ot likely to be found compatible with Refuge's mission and purpose."
- The Bridge within Existing NC 12 Easement is subject to a "[r]apid erosion rate" that will result in parts of the elevated structure being "in the surf zone or offshore in the future," a result that was rejected in 1991 as creating serious maintenance problems and an unreliable storm evacuation route that would bear the brunt of an incoming nor'easter or hurricane.
- The Bridge within Existing NC 12 Easement and Beach Nourishment option raises the "[s]ame concerns as with beach nourishment option [i.e., compatibility and sustainability]; in addition, rapid erosion rate in this area may cause portions of the structure to be in the surf zone or offshore in the future."

The significant problems that NCDOT concedes with regard to each of these options demonstrate that none of them presents the viable long-term solution to the NC 12 maintenance problem requested by Governor Perdue. Any long-term solution must include moving the transportation corridor off this vulnerable stretch of Hatteras Island.

[4] Catherine Kozak, *NCDOT Presents Options for Long-Term Highway 12 Repair to the Public*, Island Free Press (Dec. 7, 2011).

A. Problems with Beach Nourishment Alternative

NCDOT proposes to use beach nourishment combined with dune enhancement "to maintain an adequate protective beach and dune system." NCDOT plans to nourish four locations at four-year intervals, though more frequent intervals will likely be required.

1. Practical Difficulties

There are numerous practical impediments to relying on beach nourishment to try to counteract the natural movement of Hatteras Island and the formation of new breaches and inlets. Chief among these is the fact that nourishment tends to accelerate erosion by steepening the beach. This and other problems are described in more detail below.

However, in addition to these general problems, nourishment simply is not a viable option in the area of the temporary bridge over the Refuge Inlet because the inlet there is moving southward and will cause the bridge to collapse. Nourishment will not stop this movement. One of the Fish and Wildlife Service ("FWS") buildings on the south side of the new inlet has already fallen into the inlet, and several more are currently close to collapse and may have already been condemned. Just a few months after the temporary bridge was installed there, the inlet has already migrated so much that it has already become necessary to shore up the bridge. (See footnote 1.) Inlet movement is a natural part of barrier island dynamics, and the new Refuge Inlet may migrate as far south as the location of the former New Inlet. Much more intrusive structural maintenance would be required to try to stabilize the current bridge, which would be found to be incompatible with the Refuge.

Finally, the nourishment options for the Rodanthe Breach are described inconsistently in NCDOT's workshop handout. The Nourishment option's map shows nourishment stopping just south of the Refuge boundary. However, the "Bridge Within Existing NC 12 Easement and Beach Nourishment" option shows nourishment extending south of the Rodanthe Historic District. If nourishment further south will be required for the bridge option, it will be required for the nourishment-alone option as well. Thus, NCDOT appears to understate significantly the geographical extent of the nourishment required for this latter option.

2. Geological and Biological Impacts

The Nourishment and dune enhancement option would harm – both directly and indirectly – protected species with habitat in the Study Area. It would also alter the geological profile of the island in a manner harmful to the natural processes of the barrier islands. The geologic effects of nourishment will narrow the island and will cause further harm to federally protected plants and animals.

Nourishment and dune construction alter the geological profile of the target beach. "[A] steeper beach profile is created when sand is stacked on the beach during the nourishment process. This condition can lead to greater wave energy on the beach and greater beachside erosion." Atlantic States Marine Fisheries Commission, "Beach Nourishment: A Review of the Biological and Physical Impacts" 5 (November 2002). Because of this higher erosion rate with nourishment, the demand for sand increases over time. *Id*. at 6. The combined erosion on the ocean and sound sides of the island will lead to a narrowing of the island, potentially to the point that it can no longer support a highway, mush less the wildlife habitat that is the purpose of the Refuge.

In addition, nourishment and dune construction prevent ocean overwash, leading to further erosion on the sound side, including erosion of sound-side wetlands. Overwash moves sand to the sound side of barrier islands and is an essential part of barrier island dynamics. *See* S.R. Riggs, *et al.*, "North Carolina's Coasts in Crisis: A Vision for the Future" ("Coasts in Crisis"), which explains how nourishment and dune construction contribute to ocean-side erosion and prevent overwash, exacerbating sound-side erosion. This article is available at: http://www.coastal.geology.ecu.edu/NCCOHAZ/downloads/Coasts%20in%20Crisis%20Booklet.pdf.

The impacts of nourishment also extend beyond the visible beach to the near-shore waters and to the offshore areas from which sand is mined. Mining sand offshore can disrupt long-shore sediment transport and the long-term sediment budget for the barrier islands and their adjacent inlets.

Beyond these negative effects on the physical structure of the island, the nourishment option will also negatively impact plant and animal species. Organisms can be harmed by nourishment either directly by sand placement or indirectly through alterations to the beach environment. For example, "birds may be displaced by dredges, pipelines, and other equipment along the beach, or may avoid foraging on the beach if they are aurally affected." Atlantic States Marine Fisheries Commission, "Beach Nourishment: A Review of the Biological and Physical Impacts" (November 2002). Other direct impacts include eggs, hatchlings, and adult birds being crushed by sand. *Id*. Indirect impacts to feeding birds are related to the sediment grain. "If the sediment is too coarse or high in shell content it can inhibit the bird's ability to extract food particles in the sand. Fine sediment that reduces water clarity can also decrease feeding efficiency of birds." *Id*. Other indirect impacts from beach nourishment can include diminished reproductive success, reduction in biomass of prey items, and long-term changes to substrate composition at dredging sites.

Long-term nourishment within the Project area would have additional adverse impacts on federally protected species, including the piping plover and North Carolina's endangered sea turtle species. By suppressing overwash, nourishment leads to loss of

designated critical sound-side feeding habitat and nesting habitat for the federally threatened piping plover. In addition, the nourishment and artificial dune system prevents natural maintenance of existing habitat by increasing vegetative succession. Furthermore, nourishment may result in a narrower, steeper beach profile, reducing the available intertidal area. See National Park Service, Natural Resource Year in Review—2004: Ecosystem Restoration in an Altered Coastal Environment, *available at* http://www.nature.nps.gov/yearinreview/yir2004/01_H.html ("A berm constructed to reduce the potential for island breaching has prevented natural overwash processes and has reduced habitat availability of piping plover.").

Beach nourishment can directly impact endangered sea turtles by burying nests and disturbing nesting turtles. Nourishment also impacts turtles indirectly. Beach nourishment may result in increased sand compaction and hardness and changes in moisture content and beach slope. Furthermore, as discussed above, nourished barrier islands may erode more quickly than natural beaches. This rapid erosion creates escarpments, which hamper access to nesting sites. In a vicious cycle, the rapid erosion may necessitate re-nourishment at more frequent intervals, thereby increasing the likelihood of interference with sea turtle nesting. See Fish and Wildlife Service, Recovery Plan for the U.S. Population of Atlantic Green Turtle, 3, 1991, *available at* http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_green_atlantic.pdf.

The nourishment option is also unsustainable. Narrowing the island renders it more fragile and makes maintenance of NC 12 even more difficult in the long-term. Not only does erosion accelerate as a result of nourishment, but the costs of nourishment increase greatly over time and the amount of usable sand is limited. NMFS commented that the need for nourishment appeared to be significantly understated and the availability of suitable sand appears to be significantly overstated, which "could affect conclusions about the suitability of the alternatives that have beach nourishment as a component." (FEIS at 8-49 to 8-50). DOI noted in its comments on the nourishment option that "over 500,000 cubic yards of Oregon Inlet sand have been placed along and adjacent to the 'Canal Zone Hot Spot' [alone] *annually* for the past four years, and it has not been sufficient to protect the highway from overwash and sand deposition impacts." FEIS 8-58 (emphasis added). And NCDOT admitted in its response to NMFS and DOI's concerns that it has not adequately studied the sand supply issue to determine whether available and suitable sand sources exist for a project of this magnitude. (Response to Comment, FEIS at 8-59).

3. Inaccurate Cost Estimates

The cost estimates provided for the nourishment option are misleading for several reasons. First, like all the cost estimates provided in the handout, they are now five years out of date. Second, as discussed above, nourishment tends to accelerate beach and sound-side erosion. That means that not only will the need for more sand increase over

time, but the island will become more vulnerable to breaches as it narrows, necessitating expensive emergency repairs. NCDOT has also admitted that nourishment has increased flooding problems in the Canal Zone hot spot area. FEIS at 4-70. Cost estimates should reflect these problems. Due to the massive volume of sand (500,000 cubic yards annually) that has been required even to partially stabilize the Canal Zone hot spot area in recent years, the Department of the Interior noted that "it appears that the estimated beach stabilization and associated costs are understated." FEIS at 8-58.

Finally, the long Pamlico Sound Bridge agreed upon by the Merger Team in 2003 was designed to last 100 years. Providing only a 50-year cost estimate for nourishment disguises the true cost of this option in comparison with a 100-year option like the Pamlico Sound bridge. The equivalent 100-year cost of nourishment would be at least double the current 50-year estimate, or $815,490,000 to $1,314,520,000, and it will likely be much higher when updated cost information is developed and erosion acceleration and other geologic impacts of nourishment are taken into account. When these costs are added to the cost of the Oregon Inlet bridge currently under contract, the nourishment option is significantly more expensive than the Pamlico Sound Bridge alternative.

4. Permitting and Compatibility Problems

It is unlikely that NCDOT will be able to secure necessary permits from the Army Corps of Engineers for the Nourishment alternative. Section 404(a) of the Clean Water Act, 33 U.S.C. § 1344(a), authorizes the Secretary of the Army, acting through the Corps of Engineers, to issue permits for the discharge of dredged or fill materials into navigable waters. Section 404(b)(1) directs the Environmental Protection Agency to issue guidelines ("404(b)(1) Guidelines") defining the circumstances in which dredged or fill material may be discharged into wetlands or other waters. The Corps must deny applications for section 404 permits if the discharge that would be authorized by the permit would not comply with EPA's 404(b)(1) Guidelines. 33 C.F.R. § 320.4(a).

The 404(b)(1) Guidelines prohibit issuance of a permit where:

(i) There 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; or

(ii) The proposed discharge will result in significant degradation of the aquatic ecosystem . . . ; or

(iii) The proposed discharge does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem; or

> (iv) There does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with these Guidelines.

40 C.F.R. §230.12(a)(3). An alternative to discharge to navigable waters "is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of *overall* project purpose." 40 C.F.R. § 230.10(a)(2) (emphasis added). Where a discharge "is proposed for a special aquatic site" and is not "water dependent," all practicable alternatives to the proposed discharge which do not involve a discharge to a special aquatic site "are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise." 40 C.F.R. § 230.10(a)(3). As a federal wildlife refuge, the area at issue in this case is a special aquatic site, and the use is not "water dependent" since the transportation route could be placed elsewhere, including over Pamlico Sound. 40 C.F.R. §§ 230.2(q-1); 230.40. "If such an alternative exists . . . the [Clean Water Act] compels that the alternative be considered and selected unless *proven* impracticable." *Utahns for Better Transp. v. U.S. Dep't of Transp.*, 305 F.3d 1152, 1188-89 (10th Cir. 2002) (emphasis added).

The fact that NCDOT has a contract for construction of an Oregon Inlet bridge replacement does not preclude this required alternatives analysis, because practicable alternatives must be evaluated relative to the *overall* project purpose. The Pamlico Sound Bridge and the development of a ferry network are two examples of practicable alternatives that fulfill the project purpose with far less impact on the island's ecosystems. The decision to proceed simultaneously with three costly projects in the transportation corridor demonstrates that the funding concerns raised by FHWA in no way proved the Pamlico Sound Bridge impracticable as required by the Clean Water Act. As the Corps of Engineers explained in its letter to NCDOT dated January 5, 2012, "the primary reason [it] believed that the Pamlico Sound Bridge was not a practicable alternative was based on cost estimates and the assertion that the project could not reasonably be funded." If this underlying rationale is proven false and the Pamlico Sound Bridge re-emerges as the least environmentally damaging practicable alternative, the Corps will not be able to issue a § 404 permit for the Selected Alternative or any of its component parts, including the Nourishment option for Phase II.

In addition to these § 404 permitting concerns, the Nourishment option within the Refuge requires depositing sand outside the State's NC 12 easement, and therefore constitutes a use of the refuge under § 4(f) of the Department of Transportation Act of 1966. Use of publicly owned land is prohibited unless "(1) there is no prudent and feasible alternative to using that land; and (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use." 49 U.S.C. § 303(c). Depositing sand on the Refuge beaches is without question a use of the Refuge property. Thus, it is prohibited where

there are prudent and feasible alternatives. For the reasons discussed above, NCDOT's plan to construct three components of the transportation corridor project simultaneously reveals that the up-front funding concerns used to justify the rejection of the Pamlico Sound Bridge as not prudent were in fact arbitrary and capricious, and should be rejected in light of the current situation. Because feasible and prudent alternatives to this use of the Refuge land exist, this option cannot be approved under § 4(f). Even if no feasible and prudent alternatives exist, § 4(f)'s implementing regulations require that "the Administration may approve *only* the alternative that . . . [c]auses the least overall harm." 23 C.F.R. § 774.3(c)(1) (emphasis added). The Nourishment option does not cause the least overall harm, even among NCDOT's current Phase II options.

Moreover, the Nourishment option's use of the Refuge property also triggers a required compatibility determination: "[T]he Secretary shall not initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use and that the use is not inconsistent with public safety." 16 U.S.C. § 668dd(d)(3)(A)(i). "Compatible use" "means a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge." 16 U.S.C. § 668ee.

> Inherent in fulfilling the System mission is not degrading the ecological integrity of the refuge . . . . The Refuge Manager must consider not only the direct impacts of a use but also the indirect impacts associated with the use and the cumulative impacts of the use when conducted in conjunction with other existing or planned uses of the refuge, and uses of adjacent lands or waters that may exacerbate the effects of a refuge use.

65 Fed. Reg. 62484, 62490 (Oct. 18, 2000).

Here, the direct and indirect impacts of nourishment and dune construction are incompatible with the purpose of the Refuge because would they harm plants and animals in the Refuge as well as the species' ecosystems and designated critical habitat, and they would negatively alter the geological condition of the Refuge land by contributing to increased erosion and island narrowing. NCDOT acknowledges that the Nourishment option is "[n]ot likely to be found compatible with Refuge's mission and purpose." (Handout p. 10).

Finally, the Cape Hatteras National Seashore extends 150 feet offshore of the Refuge, so NCDOT would also need a Special Use Permit from the National Parks Service ("NPS") in order to pursue the Nourishment option. The harmful impacts of nourishment, which result in narrowing the island, are not compatible with the NPS's goal of supporting the natural processes of barrier island dynamics.

B. Problems with Bridge Within Existing Easement Alternative

This "Bridge Within Existing Easement" alternative involves elevating NC 12 onto bridges within the State's current easement and is part of the "Phased Approach" that was effectively rejected by not being designated the preferred alternative in the EA or the selected alternative in the ROD. This option has two components in the current Phase II proposal: a longer, permanent bridge over the Refuge Inlet, along with two bridge options for the Rodanthe Breach site. Though NCDOT's workshop materials do not disclose this, the Phased Approach option may also involve nourishment and the construction of artificial dunes.

NCDOT claims that elevating NC 12 in the Refuge will not use the Refuge so long as the Project stays within its existing easement. As a result, NCDOT claims there are no potential constraints on this option (Handout p. 8). However, this option is highly unlikely to stay within its easement, and even if it does, it will constitute a use of the Refuge that is subject to a compatibility determination.

In a 2007 letter to then-Governor Easley, DOI stated that the Phased Approach would require actual use of Refuge land and therefore was likely incompatible with the Refuge's purpose:

> While the intent is to construct these new bridges within the existing road's right-of-way, we believe this alternative would require *continued maintenance outside of the existing road's right-of-way* through the Refuge until each subsequent phase of bridge construction along NC 12 is completed. Current information also indicates that all 4 phases would require at least 13 years of actual construction during a 28-year timeframe. Based on the information that the Service currently has, *it is unlikely that we could find this alternative to be compatible with the purposes for which the refuge was established*, as required under the Refuge Improvement Act.

Letter from David Verhey, Acting Assistant Secretary for Fish and Wildlife and Parks, to Governor Easley, dated September 11, 2007 (emphasis added).

The Phase II NCDOT Handout and other materials also fail to mention the projected dune-building and maintenance activities through 2030 that were integral to the Phased Approach as it was described in the FEIS (pages 4-70 to 4-72), much less explain how maintenance and any future dune-building will stay within the easement and cause no further encroachment onto the Refuge. Absent credible information to the contrary, it is simply not realistic for NCDOT to claim it will be able to accomplish all of the activities it proposes – new dune construction and maintenance, a temporary road, and constructing a long bridge more than 40 feet wide while keeping the existing highway

open– while staying entirely within its existing easement. It is virtually inevitable that these activities will "use" the Refuge within the meaning of Section 4(f). Moreover, the FEIS acknowledged that the Phased Approach "may require some beach nourishment," which would constitute a further use of Refuge land. (FEIS at 4-107). For all these reasons, it is foreseeable that the Phased Approach will result in actual use of Refuge land.

In addition to these actual uses of Refuge land, this option will constructively use Refuge property as well. The elevated roadway will soon be located on the beach, in the surf, and eventually in the Atlantic Ocean as the island migrates westward. NCDOT acknowledges that the end result of this option will be a long bridge located in the ocean. See FEIS at 4-172. This is an absurd result. The U.S. Army Corps reminded NCDOT in its 2007 comments on the Supplement to the SDEIS that an ocean bridge was rejected in 1991 (in the form of the "East Bridge" alternative) because wave and storm impacts would create unjustifiably high maintenance costs. Those same problems will plague an elevated NC 12 that winds up in the ocean under the Phased Approach as well. Large sections of the proposed bridge will sit in highly dynamic breaker zones, where they will be subject to waves, scour, and severe storms, including nor'easters and hurricanes. Beyond the severe maintenance problems this would create, the route would also fail utterly to provide a safe, reliable storm evacuation route. For this reason alone, this option must be rejected.

Moreover, beyond these problems, the bridge's eventual location in the surf also constitutes a constructive use of the Refuge: "A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired." 23 C.F.R. § 774.15(a). An ocean-side bridge will negatively affect Refuge geology, including erosion rates, inlet formation, ocean overwash, etc. Indeed, NCDOT has admitted that the presence of bridge piles on the beach or in the ocean and the accompanying scour effects would create erosion problems and "could accelerate the development of a breach" during storms. The scour area on the ocean floor anticipated by NCDOT to result from the elevated roadway is approximately 15.6 acres. (FEIS at 4-61.) As we discussed in our comments on the FEIS, scour effects from a long ocean-side bridge running parallel to the shore have not been adequately studied and may be much more significant than revealed in the FEIS. Moreover, dune construction and/or nourishment will increase ocean-side erosion, prevent overwash, and increase sound-side erosion, reducing valuable wetland habitat.

The Refuge Act specifically mandates that a compatibility determination consider the direct, indirect, and cumulative impacts on Refuge land and any adjacent land or waters that affect the Refuge use. It is clear that the elevated roadway option will have adverse impacts on the Refuge, and it is therefore subject to a compatibility

determination. For the reasons already discussed, FWS is likely to find the proposed activity is incompatible with the mission and purpose of the Refuge.

This option also would be subject to a compatibility determination even if it did not constitute a physical use of Refuge land under § 4(f). First, this option would use the Refuge as a historic property due to the significant visual impact of an elevated bridge through the length of the Refuge. NCDOT acknowledges that a long bridge through the Refuge or on the beach will create a "sizeable visual intrusion in to the landscape of the Refuge," all the more so in light of new bridge height requirements developed after Hurricane Katrina.

Second, irrespective of § 4(f) use, maintenance of an existing right-of-way is subject to review and approval by the FWS and is restricted to minor actions such as minor expansions or minor realignments to meet safety standards. *See* Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997, 65 Fed. Reg. 62484, 62490 (Oct. 18, 2000). The impacts of a major project to elevate the length of NC 12 through the Refuge will include significant direct and indirect effects and therefore cannot be exempted from a compatibility determination.

Assuming that NCDOT plans to continue this option under a phased approach and thus will not elevate the entire roadway at once, this option will have significant indirect impacts on the Refuge and impermissibly interfere with the FWS's ability to manage the Refuge for the benefit of federally protected species. Because of the unpredictable nature of barrier island dynamics – including inlet/breach formation, shoreline erosion rates and locations, and sound-side erosion – NCDOT's plan to elevate sections of the highway as problems arise will likely occur suddenly and require "temporary" or "emergency" actions that will permanently and adversely affect the Refuge. As has been the case for maintaining NC 12 in the past, these temporary measures include sand bags, beach nourishment, dune rebuilding, dune sprigging, fencing, and road relocation. As NCDOT admitted in the FEIS, it has never conducted these emergency or maintenance measures within the existing right-of-way. Such an approach would also recreate the significant transportation problems and economic losses that Hatteras residents suffered as a result of recent NC 12 breaches, including the six to seven weeks they were cut off in the wake of Hurricane Irene.

In addition to the harmful impacts on Refuge land, an ocean bridge would harm essential fish habitat ("EFH"). NCDOT has stated that the ocean bridge that would result from this option

> could permanently affect diversity and density of some aquatic wildlife within these [ocean] communities . . . . Because of habitat alteration and diminished vegetative growth, shading could impact managed species by locally diminishing the primary producers on which the managed species

> rely for food and cover, thereby resulting in an overall reduction in local carrying capacity. Fish abundance and growth have been found to be lower beneath fishing piers compared to adjacent waters . . . . The high energy around the piles may reduce habitat quality for larval and adult fish, as well as reduce invertebrate species abundance and diversity.

(FEIS at 4-107.) The Magnuson-Stevens Act, 16 U.S.C. § 1801 *et seq.*, requires agencies to consult with the U.S. Secretary of Commerce before undertaking any action that might adversely affect EFH.

In addition, maintenance activities on this bridge in the surf zone "would . . . represent a long-term impact" to EFH and federally protected species. See FEIS at 4-108. Permanent, ongoing maintenance would be a necessity for bridge piles located in the high-energy surf zone, as the vast majority of the elevated roadway would be over the next 50 years, and this intrusive activity would be a major detriment to EFH. Permanent, on-going maintenance of an ocean bridge would also constitute another use of the Refuge, would require a Special Use Permit from the NPS, and likely a section 404 permit from the Army Corps as well.

The dune-building activities associated with this option will disrupt overwash and other barrier island dynamics, as described above in the discussion of the Nourishment option. Once these natural processes are interrupted, the bridge will adversely affect migratory bird and other wildlife habitat. For example, the eventual presence of bridge pilings in the surf or on the beach would impact the quality of nesting habitat for the federally protected piping plover and green and loggerhead sea turtles. Because this result is readily foreseeable, this option is incompatible with the purpose of the Refuge due to the significant negative impacts of a long bridge located on the beach or in the ocean.

Beyond these problems within the Refuge, there are serious legal and logistical problems with elevating the existing roadway in the Rodanthe area as well. By NCDOT's own calculations, a bridge in this area will be located in the breakers by 2020 – *in eight short years* – creating tremendous maintenance and erosion problems. By 2060, NCDOT calculates the bridge could be 930 feet offshore. FEIS at 4-30, 4-62. Cost estimates should reflect the certainty of this section of bridge being located in the Atlantic Ocean. Moreover, as discussed above, the bridge's eventual location in the breakers and offshore would render the bridge unusable as an emergency evacuation route.

A Rodanthe bridge will also create access problems and significant effects on the human environment for property owners and tourists. As one example, NCDOT noted in its 2010 EA that the bridge will have to terminate in a full-height stub so that it can be continued farther into Rodanthe when continuing erosion cuts off planned temporary access ramps. Furthermore, NCDOT concedes that the bridge being in the surf will

impede views and beach access for residents and visitors and likely will accelerate the erosion problems that already threaten structures in Mirlo and Rodanthe, to the detriment of local property owners.

The Bridge with Nourishment option for Rodanthe is not feasible either. It would have the same erosion problems as the longer Rodanthe bridge, and would also require a compatibility determination in order to deposit sand and construct dunes in the Refuge. As NCDOT acknowledges—as well as for the reasons given above—this activity is likely to be found incompatible with the Refuge. (Handout p. 10).

Finally, the cost of this option was estimated by NCDOT to be higher than that of the Pamlico Sound Bridge when the most recent cost estimates were calculated in 2006. The Phased Approach was estimated to cost between $1.171 and $1.497 billion, or between $1.149 billion and $1.524 billion if nourishment was also used in the Rodanthe area. (Rev'd Final 4(f) Evaluation, FEIS at B-26). The Pamlico Sound Bridge, by contrast, was estimated to cost between $942.9 and $1.441 billion. Cost cannot therefore justify rejecting the Pamlico Sound Bridge in favor of this current proposal.

C. Problems with Road or Bridge on New Location West of Existing Easement in the Refuge

NCDOT has conceded that the two options to relocate NC 12 west of its existing easement are not viable because they could not obtain the necessary easements and compatibility determinations. Jim Trogdon has admitted that "[o]n Pea Island, any option that stays in the right of way is preferred, and in some cases, required."[5] Several agencies on the Merger Team rejected these options in 2009 due to their substantial wetlands impacts. Moreover, the NCDOT Handout (p. 8) acknowledges that neither relocation option would be likely to be found compatible with the Refuge. These admissions should have prevented NCDOT from presenting such unrealistic options to the public.

The information provided to the public about these options is also unrealistic because it artificially understates the impacts to wetlands and other lands within the Refuge. The NCDOT Handout states that the wetlands impact for the "Bridge on New Location" option is 0.1 acre and that it is 3.0 acres for the "Road on New Location" option. However, the FEIS reveals that relocating the easement west as proposed by the current options will result in permanent wetlands impacts of 8.5 acres filled for an "All Bridge" option, and between 67.5 and 79.4 acres for a relocated roadway. SDEIS at 4-58, FEIS at 2-73. The workshop handout does not explain this discrepancy. It may stem from the fact that "Phase II" of this option entails temporarily linking the relocated corridor back to existing NC 12 just north of the new Refuge Inlet. However, given that this alignment is admitted to be temporary and will inevitably be replaced by a new

[5] Kozak, "NCDOT Presents Options for Long-Term Highway 12 Repair to the Public," Island Free Press (Dec. 7, 2011).

corridor that extends through the entire length of the Refuge, the true impacts of this option and their implications for the viability of this option must be disclosed to the public. To withhold those impacts until the remainder of the corridor is relocated is another instance of illegal segmentation.

In fact, neither of these options stands any chance of being constructed. Because of their massive impacts on jurisdictional wetlands and other Refuge wildlife habitat described above, these relocation options cannot be approved by FWS or the Army Corps. First, in order to be constructed, NCDOT would have to obtain a new easement for each of these options. FWS could not grant such an easement, however, because these options are manifestly incompatible with the mission and purpose of the Refuge. The huge footprint of a new road or bridge through the length of the Refuge, including cutting through vital waterfowl impoundments, would clearly degrade the ecological integrity of the Refuge as a wildlife habitat and therefore must be found to be an incompatible use.

In addition, there is no viable compensatory wetlands mitigation within the Refuge to offset these impacts. Even if FWS were willing to accept NCDOT's abandonment of its existing easement as partial mitigation – which is unlikely, especially since on information and belief NCDOT plans to undertake no pavement removal or restoration work in the Refuge – the new route would use more acres of the Refuge than the existing easement and thus would require additional mitigation that simply does not exist. *See* EA at 2-24. Mitigation would also be required for the degraded state of the abandoned easement. DOI has reminded NCDOT that "mitigation cannot be used to make an otherwise incompatible proposed use compatible with the mission and purpose directives." FEIS 8-70.

For similar reasons, the Army Corps could not issue a § 404 permit for the massive amount of wetlands fill that these options would necessitate. The existence of other proposed options that would be less harmful to jurisdictional wetlands, in addition to the even less intrusive long Pamlico Sound Bridge or ferry options, preclude the issuance of a § 404 permit for these options.

D. Problems with Bridge in Pamlico Sound Near Rodanthe

The proposed bridge from Rodanthe through the Pamlico Sound was originally proposed as part of the "Road North/Bridge South" and "All Bridge" alternatives. Because it now could also be combined with one of the other proposed options, we discuss it separately from the relocation options covered in the previous section.

No matter which other option the proposed bridge would be linked to, a Rodanthe area bridge would require a new easement through two acres of estuarine emergent wetland areas in the Refuge in order to rejoin the existing NC 12 corridor; such a new easement would likely be denied as incompatible for the reasons given above. Here too,

on-site compensatory mitigation would be impossible because there are no equivalent wetlands NCDOT could restore. For all these reasons, the NCDOT Handout concedes that this option is "[n]ot likely to be found compatible with the Refuge's mission and purpose" and thus it could not be constructed. (Handout at 10).

In addition, the proposed bridge would travel through areas of known submerged aquatic vegetation (SAV), which are also classed as EFH because they provide refuge from predators and foraging areas for juvenile and adult fish. As discussed above, the Magnuson-Stevens Act requires consultation with the Secretary of Commerce before any action is taken that might adversely affect EFH. In this case, the proposed bridge would fill approximately 1.4 acres of SAV (see FEIS at 4-88) and shade 5.3 acres of SAV (Handout at 10).

The bridge would also require a § 404 permit from the Army Corps of Engineers for discharge and fill in jurisdictional waters. Such discharges are not permitted if a practicable alternative exists that would have a lesser adverse impact on the aquatic ecosystem. 40 C.F.R. § 230.10(a)(2). As discussed earlier, the in-corridor Rodanthe bridge, as well as a long Pamlico Sound Bridge or a ferry system, would offer practicable alternatives with lesser adverse impact.

The Rodanthe terminus of this bridge would apparently be in the same location as the Rodanthe Bridge Within Existing NC 12 Easement. As discussed above, NCDOT has acknowledged potential problems with the terminus of the latter option being located seaward of the projected 2060 shoreline. The same problem is likely to affect the Bridge on New Location option, raising its costs and increasing its environmental impact as a result.

Lastly, the proposed bridge would be quite expensive to construct due to the shallow water in the proposed bridge corridor. The water depth is less than six feet for virtually all of the bridge length. NCDOT is prohibited from dredging in SAV areas in order to use barges to construct the bridge, so instead a temporary work bridge would have to be constructed and the proposed bridge built off of that. (FEIS 4-90, 4-177). This is a much more expensive construction method than conventional barge-based bridge construction and likely means the estimates provided in the handout are artificially low.

E. Seven-Mile Bridge in Pamlico Sound Bypassing Rodanthe Breach and Refuge Inlet

Although it was not included in NCDOT Handout or other materials distributed at the public meetings, we understand that NCDOT is also considering a seven-or-more-mile long bridge to bypass the southern half or even two thirds of the Refuge in the Pamlico Sound as yet another alternative for Phase II. We have marked our understanding of the general path of such a bridge in magenta on the attached map.

Because this alternative has not been explained by NCDOT nor evaluated during the NEPA process, it is difficult to comment thoroughly on it. Generally, it represents a step in the right direction insofar as it would remove the transportation corridor from the most unstable portion of Hatteras Island and would eliminate the need for the much of the nourishment, construction, maintenance, and other activities that would constitute use of the Refuge under the Refuge Act. Once the details of this alternative are revealed, however, there may well be problems to be addressed, such as the use of the Refuge land where the northern end of the bridge makes landfall on the Refuge, the maintenance of the remaining miles of NC 12 (especially in the future inlet locations identified by government scientists), impacts on submerged aquatic vegetation on the sound side of the Refuge, harm to EFH, and impacts to wetlands, among other things.

The consideration of this medium-length bridge alternative again raises the issue of cost: if NCDOT has the funding necessary to build both the 2.5- to 3.2-mile Phase I bridge over Oregon Inlet as well as a seven-or-more mile bridge to bypass both the Rodanthe Breach and the Refuge Inlet, why should that money not be spent to build the less environmentally damaging Pamlico Sound Bridge alternative? Such a bridge would bypass the entire Refuge, eliminate impacts to the Refuge, eliminate the need for the Later Phases of the current Selected Alternative, and result in a safe and reliable route predicted to last 100 years.

III. NCDOT Must Reconsider Off-Island Options

As discussed above, the ostensible justification for rejecting a long Pamlico Sound Bridge – its cost – has been disproven. At Governor Perdue's request, NCDOT has accelerated its timetable to try to provide a long-term solution to the breaches caused by Hurricane Irene. As a result, NCDOT now proposes to construct Phase I and Phase II of the Bonner Bridge replacement at once, with three major components, incurring costs that will surely be comparable to the likely contract price of the Pamlico Sound Bridge. Accordingly, that option must now be reconsidered by the Merger Team as the least environmentally damaging alternative, or "LEDPA," and as a feasible and prudent avoidance alternative under § 4(f), because it would cause significantly less environmental harm and would provide a much more stable long-term solution to the current transportation crisis on Hatteras Island.

In addition, however, it is time for NCDOT and the rest of the Merger Team to give serious consideration to a system of modern, high-speed ferries that would link the Hatteras communities to Bodie Island and the mainland. Ferry technology has come a long way since the ferry option was studied in 1991 and dismissed in the 1993 DEIS. For example, quadrimaran ferries already in use elsewhere appear to offer the combination of high speed, extremely shallow draft, and low wake that could meet the needs of transportation across Pamlico Sound. See, e.g., William A. Hockberger, "Quadrimaran

Ferries: High Speed with Shallow Draft," 2033 Transportation Research Record: Journal of the Transportation Research Board at 1-7 (2007).

Privatizing a ferry system for Hatteras Island would introduce competition and multiple route options while allowing the private sector to bear the costs of expensive new ferry technologies. Spreading the transportation burden among multiple routes (and possibly among multiple carriers) would help address the objection that a ferry system could not match the carrying capacity of the Bonner Bridge, since each route would only need to carry a fraction of the total demand by taking passengers directly to their final destination in Rodanthe, Cape Hatteras, Bodie Island, etc.

Finally, ferry terminals located in currently isolated mainland towns like Stumpy Point could have a tremendous positive economic impact on these communities. Ferries would create permanent jobs on the Outer Banks and the mainland while also supporting the creation of other local businesses to serve ferry passengers.

NCDOT's previous response to comments regarding ferries has indicated a resistance to meaningfully considering this option. For example, in its response to comments on the 2010 EA, NCDOT stated that other island communities served exclusively by ferries are "not in any way equivalent" in part because they have been "accessed by boat, ferry or plane for their entire modern histories." (ROD at C-53.) This is not a meaningful reason to refuse to study modern ferry options for Hatteras Island. NCDOT also argued that these other communities have lower permanent and seasonal populations than Hatteras Island, but again, dividing the transportation load currently carried by the Bonner Bridge among multiple ferry routes to key locations on Hatteras Island would alleviate any capacity issues.

One point made in our comments on the EA bears repeating in light of Hurricane Irene: ferry systems provide a much more reliable and resilient transportation option after a major storm. While the Hatteras communities were cut off for over six weeks after Hurricane Irene breached NC 12, ferry service to Ocracoke Island was up and running within days. Hatteras residents and businesses suffered a major economic loss as a result of NCDOT's dependence on the vulnerable stretch of NC 12 through the Refuge. In contrast, an updated ferry system would provide a much quicker recovery from hurricanes during tourist season.

In short, rather than finding reasons to reject ferries out of hand, NCDOT should study this option seriously, investigating other public and private ferry systems in the United States and internationally to determine whether such an option is practicable. NCDOT claimed in its response to comments on the EA that the FEIS provided an adequate discussion of the ferry option, but that discussion, like discussions in previous NEPA documents, appears merely to summarize and repeat assumptions made in a 1991 feasibility study. Given the lack of viable options among those it is currently proposing

for Phase II, NCDOT can no longer afford to dismiss this alternative using out-of-date assumptions, data, and reasoning.

Conclusion

The Merger Team must revisit the entire Bonner Bridge replacement project. The Selected Alternative has proven inadequate because NCDOT has not developed any viable options for NC 12 and has instead been forced to rely upon old options already rejected by the Merger Team. Storm damage and erosion will only continue to reveal the shortcomings of this piecemeal approach. These realities have forced NCDOT to find funding to pursue three simultaneous components of its proposed transportation corridor, but the cumulative costs of these components are without question comparable to other alternatives, including the likely contract price of a long Pamlico Sound Bridge.

A safe and secure Pamlico Sound Bridge, predicted to last 100 years, and/or an updated ferry system, are surely a better use of the money than a series of precarious bridges and roads predicted to last only 50 years and to be beset by erosion and storm damage throughout their useful life. Thus, the Merger Team must reconsider off-island alternatives – including a Pamlico Sound Bridge and ferries – in light of the immense challenges and true costs of maintaining a long-term NC 12 corridor through the Refuge. These options are practicable, feasible, and prudent alternatives that will be far more stable and less environmentally damaging than the options presented to the public in the current Phase II process.

Sincerely,

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Attachment

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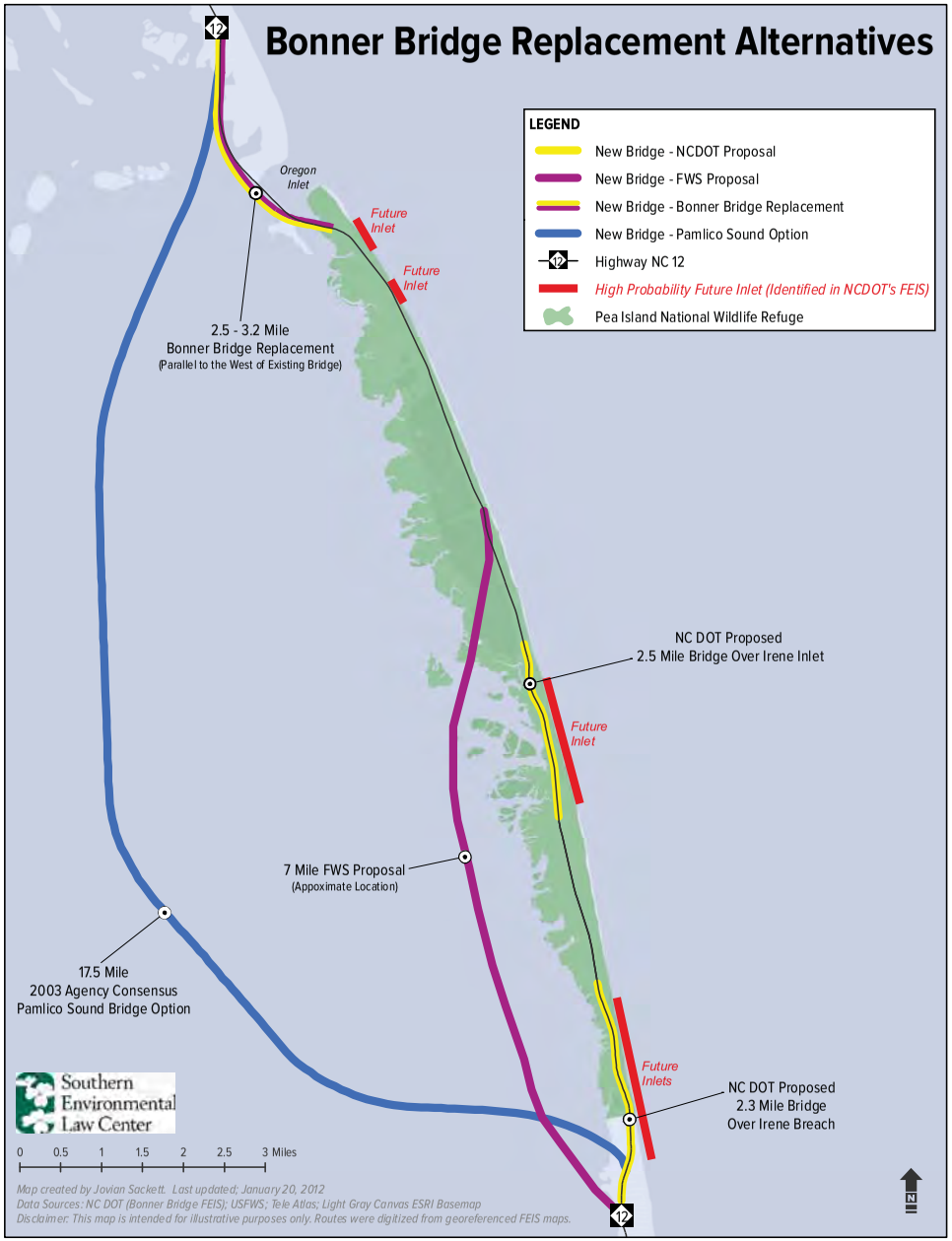


Issue No. 7 February 2013

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF THE HERBERT C. BONNER BRIDGE (BRIDGE NO. 11) ON NC 12 OVER OREGON INLET

Bonner Bridge Update

TIP Project No. B-2500 Dare County, North Carolina

ENVIRONMENTAL ASSESSMENT FOR PERMANENT BRIDGE OVER NEW PEA ISLAND INLET AVAILABLE FOR REVIEW

The North Carolina Department of Transportation (NCDOT) has released an Environmental Assessment (EA) for public comment for Phase IIa (Pea Island inlet) of the Bonner Bridge Replacement Project. The Bonner Bridge Replacement Project includes both a new bridge over Oregon Inlet (Phase I) and future phases that provide for the long-term maintenance of NC 12 from Oregon Inlet to Rodanthe. Phase IIa of the project is the long-term solution for the section of NC 12 at the Pea Island inlet, which formed as a result of Hurricane Irene in 2011.

The EA identifies the Bridge within Existing NC 12 Easement Alternative as the Preferred Alternative for Phase IIa. The Preferred Alternative is shown on the figure on the next page. The EA also describes the changes in the environment since the release of the 2010 Record of Decision (ROD), in particular the formation of the new Pea Island inlet. As described in the EA, the Preferred Alternative for Phase IIa would include the following characteristics:

- An approximately 2.1-mile-long bridge within the existing NC 12 easement to replace the existing surface road and the temporary bridge over the Pea Island inlet.
- Designed to account for the potential expansion and migration of the current inlet in the future, as well as potential future breaches in the area (see figure on next page).
- Constructed on the ocean side of the NC 12 easement except in the area of the temporary bridge, where it would be on the sound side, due to the location of the existing temporary bridge.
- Traffic would be maintained on NC 12 throughout construction of the permanent bridge.

Bulletin Board

PHASE IIa
PUBLIC HEARINGS

March 11, 2013
MANTEO
Dare County
Administration Building
954 Marshall Collins Drive
Manteo, NC
4:00 pm - 7:00 pm

March 12, 2013
RODANTHE
Rodanthe-Waves-Salvo
Community Center
23186 Myrna Peters Road
Rodanthe, NC
4:00 pm - 7:00 pm

March 13, 2013
OCRACOKE
Ocracoke Community Center
1009 Irvin Garrish Highway
Ocracoke, NC
4:00 pm - 7:00 pm

How to Comment on the EA

Comments on the EA and the Preferred Alternative may be mailed in or submitted in writing at any of the public hearings. Mailed comments should be sent by March 28, 2013 to:

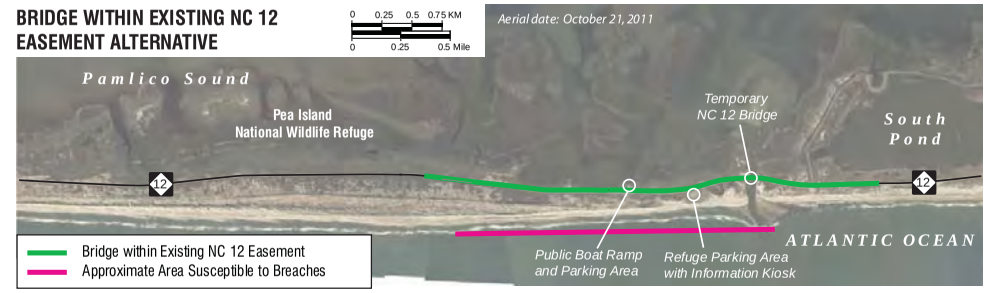
Mr. Drew Joyner
Human Environment
Section Head
NCDOT
1598 Mail Service Center
Raleigh, NC 27699-1598
djoyner@ncdot.gov

PUBLIC HEARINGS SCHEDULED

Locations and times of the public hearings scheduled for March 11, 12, and 13, 2013 are listed to the left on the Bulletin Board. The purpose of the hearings is to give citizens the opportunity to express their opinions about the Phase IIa alternative and design under consideration. The hearings will be informal, with the public welcome to drop in any time between 4:00 PM and 7:00 PM. Study team members will be available to explain the alternative and design under consideration and answer questions. The same information will be available at all three meetings.

NCDOT will provide auxiliary aids and services under the Americans with Disabilities Act for disabled persons who wish to participate in these hearings. Anyone requiring special services should contact the study team.

BRIDGE WITHIN EXISTING NC 12 EASEMENT ALTERNATIVE



WHAT HAPPENS NEXT

After reviewing comments from citizens, local government, and state and federal regulatory and resource agencies, NCDOT and the Federal Highway Administration (FHWA) will determine if the proposed Phase IIa project results in any significant new impacts beyond those taken into consideration in the 2010 ROD and if a Supplemental Final Environmental Impact Statement (SFEIS) is necessary. If a

North Carolina Department of Transportation
Project Development and Environmental Analysis Unit
Attention: Beth Smyre
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

(continued from above)

SFEIS is not needed, a ROD will be issued in the spring of 2013 and permit applications will be submitted to regulatory agencies. NCDOT plans to award a construction contract as early as the summer of 2013. An EA assessing alternatives for a long-term solution to NC 12 overwash in the Rodanthe area (Phase IIb) is expected to be released in the summer of 2013.

Feel Free to Contact the Study Team

If you have any questions or wish to be added to our newsletter mailing list, please call John Page on our **Toll-Free Project Information Line, 1-866-803-0529**. You may also write the study team at:

Ms. Beth Smyre
NC Department
of Transportation
Project Development and
Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548
bsmyre@ncdot.gov

-- or --

Mr. John Page
Parsons Brinckerhoff
434 Fayetteville Street
Suite 1500
Raleigh, NC 27601
pagej@pbworld.com

EA Review Locations

The EA and maps of the Preferred Alternative design are available for public review at the following locations:

- Dare County, North Carolina library locations in Hatteras Village, Kill Devil Hills, and Manteo
- Fessenden Recreation Center in Buxton, NC
- Dare County Planning and Inspections Satellite Office 49815 NC Highway 12, Buxton, NC
- NCDOT Resident Engineer's Office 349 Water Plant Road, Unit B Manteo, NC
- Ocracoke School & Community Library 225 Back Road, Ocracoke, NC

The EA and maps also are posted for online review on NCDOT's website at http://www.ncdot.gov/projects/bonnerbridgephase2/

Appendix C

Response to Scoping Comments on Potential Phase IIb Alternatives

C. Response to Scoping Comments on Potential Phase IIb Alternatives

This appendix completes the response to the comments received following a series of Citizens Informational Workshops held in December 2011 and January 2012. The workshops were held as part of the scoping process for Phase II of the Bonner Bridge Replacement Project (B-2500).[1] As a result of damage to NC 12 caused by Hurricane Irene in August 2011 in two locations, the North Carolina Department of Transportation (NCDOT) initiated Phase IIa (B-2500A) and Phase IIb (B-2500B) of the Bonner Bridge Replacement Project (B-2500) to implement long-term NC 12 improvements pursuant to the PBC/TMP Alternative identified in the ROD. The two locations in which NC 12 was breached by the storm were in northern Rodanthe (the "Rodanthe breach") and within the Pea Island National Wildlife Refuge (Refuge) approximately 6 miles south of Oregon Inlet (at the "Pea Island inlet"). This Environmental Assessment (EA) is for the Rodanthe breach area ("Phase IIb"). An EA for the Pea Island inlet area ("Phase IIa") was released in February 2013 and a ROD was issued in October 2013. Appendix C of the Phase IIa EA for the Pea Island inlet included responses to comments that were applicable to Phase II as a whole, as well as those that specifically addressed Phase IIa. This appendix provides responses to the comments or portions of longer comments that are applicable only to Phase IIb and for which the promise of a response in this document was made in the Phase IIa EA (Appendix C).

Also included in this Appendix are public comments related to Phase IIb that were made during the Phase IIa EA comment period that ended March 28, 2013. They originally appeared in the Phase IIa ROD under the heading "Phase IIb Rodanthe Breach." These comments were considered during the preparation of this EA and are repeated in this appendix for the reader's convenience.

The Phase IIa EA and the Phase IIa ROD are included on the compact disc (CD) that accompanies this EA, at the public review locations listed in Section 6.7, and on the NCDOT website at http://www .ncdot.gov/projects /bonnerbridgephase2/.

[1] The Selected Alternative for the NC 12 Replacement of the Herbert C. Bonner Bridge over Oregon Inlet (Bonner Bridge Replacement Project), State Transportation Improvement Program (STIP) No. B-2500, is the Parallel Bridge Corridor with NC 12 Transportation Management Plan Alternative (PBC/TMP Alternative), as documented in the December 2010 ROD.

C.1 Public Comments

As part of the Phase II scoping process, Citizens Informational Workshops were held on December 5, 2011 at the Dare County Administration Building in Manteo; December 6, 2011 at the Rodanthe-Waves-Salvo Community Center in Rodanthe; and January 5, 2012 at the Community Center in Ocracoke. Based on the workshop sign-in sheets, attendance at the workshops was as follows: Manteo – 45 people; Rodanthe – 135 people; and Ocracoke – 58 people. A total of 77 citizens and one non-governmental organization (NGO) made comments (written, e-mail, or telephone) at and following the Citizens Informational Workshops. Of the 78 total comments, 25 comments did not express an alternative preference (i.e., general project-related comments and information requests). A summary of these comments sorted by the Phase IIb alternative favored is presented in the next section. Comments not related to a preference for one or more alternatives are presented in the section that follows.

C.1.1 Alternatives Favored in the Phase IIb Project Area

A total of 41 commenters expressed a preference for one of the alternatives displayed at the workshops in the Phase IIb project area, as follows:

- Beach Nourishment 29
- Bridge on New Location 9
- Bridge within Existing NC 12 Easement 7
- Bridge within Existing NC 12 Easement with Beach Nourishment 6

The Outer Banks Chapter of the Surfrider Foundation submitted a petition (with 1,148 signatures) in favor of giving consideration to design options that, at a minimum, provide continued, if not improved, access to Rodanthe 'S' Curves Hot Spot area for surfing. The petition did not indicate support for a particular alternative, but it stated that the 'S' Curves Hot Spot area is a top surfing spot in the United States. It also emphasized the contribution of surfing to the local economy.

C.1.2 Public Comment Summary Related to the Phase IIb Project Area

In addition to comments indicating a preference for one or more alternatives, there were comments addressing the following substantive topics: project need and timing, cost and financing, decision-making considerations, permanent bridges, the temporary bridge over the Pea Island inlet, a permanent bridge over the Rodanthe breach, relocating NC 12 as a road, beach nourishment, other actions to minimize shoreline change, and utilities and emergency services. Almost all of these comments were addressed in Appendix C of the Phase IIa EA (Section C.1.2, comment themes 1 to 5, 7, 8 [part], and 9 to 11). The comments grouped as comment themes 6 and 8 (part) are specific to the Rodanthe area. These are listed and responses are provided below.

- Permanent Bridge Over the Rodanthe Breach:

  - A new bridge would be too disruptive. It would ruin the waterfront experience, including recreation and scenic views. It would impact community cohesion and quality of life. Do not disturb the community; "everything" is disappearing; more commercial development is undesirable.
  - A new bridge will create negative impacts to recreational opportunities such as surfing and the economy unless beach access and parking are maintained/ provided, especially at the "S" curves.
  - The bridge alternative will devastate Rodanthe.

    Response: *The positions of the commenters are noted. Such impacts were considered when evaluating these alternatives in the Bonner Bridge Replacement Project (B-2500) 2008 FEIS and the 2010 EA. They also were taken into consideration in the current Phase IIb study process and this EA. Access will be maintained to homes and businesses along NC 12 with either Phase IIb detailed study alternative. However, direct access from the NC 12 roadside within the Pea Island National Wildlife Refuge (Refuge) would be removed for the section of NC 12 within the Refuge that is bridged. In the past, the Refuge has preferred sacrificing direct roadside motor vehicle access in order to eliminate the need for artificial dunes to maintain a surface road. Refuge representatives have indicated in the past that they will allow for some form of access to the Refuge and its facilities. In the development of Phase IIa mitigation measures, NCDOT agreed to provide an access road, to be maintained by the Refuge, to the New Inlet boat ramp/parking lot. NCDOT also agreed to replace the parking lot currently on the east side of NC 12 that also will be bypassed by the Phase IIa Selected Alternative.*

- Beach Nourishment:

  - The entrance to Rodanthe could benefit from beach re-nourishment; if nourishment is tried, then direct ingress to historical Rodanthe is desirable.

    Response: *The positions expressed in this comment are noted. Beach nourishment is not being pursued as a detailed study alternative for Phase IIb for the following reasons: uncertainties related to the availability of suitable sand to regularly re-nourish the shoreline over the project's 50-year life; nourishment would not adequately protect NC 12 from potential future inlets in this area because of the underlying geology; the higher shoreline erosion rate in this area compared to the rest of the Bonner Bridge Replacement Project (B-2500) project area, which would increase the amount of sand required compared to other parts of the full project area; it would not allow natural island processes to occur within the southern portion of the Refuge; and nourishment as a long-term solution is not likely to be found compatible with the Refuge's mission and purpose (based on previous US Department of Interior [USDOI] comments). Neither of the detailed study alternatives evaluated for Phase IIb would affect ingress to historical Rodanthe. In addition, neither of the detailed study alternatives would prohibit the*

consideration of either short-term or long-term beach nourishment proposals by other government or private entities.

C.2 Southern Environmental Law Center Comments

Portions of the Southern Environmental Law Center's (SELC) scoping comment 7 and comment 9, as presented in the Phase IIa EA, directly related to Phase IIb. Responses to these comments are presented in this section.

7. **Comment:** The portions of this comment not addressed in Appendix C of the Phase IIa EA are:

   Beyond these problems within the Refuge, there are serious legal and logistical problems with elevating the existing roadway in the Rodanthe area as well. By NCDOT's own calculations, a bridge in this area will be located in the breakers by 2020 – *in eight short years* – creating tremendous maintenance and erosion problems. By 2060, NCDOT calculates the bridge could be 930 feet offshore. FEIS at 4-30, 4-62. Cost estimates should reflect the certainty of this section of bridge being located in the Atlantic Ocean. Moreover, as discussed above, the bridge's eventual location in the breakers and offshore would render the bridge unusable as an emergency evacuation route.

   A Rodanthe bridge will also create access problems and significant effects on the human environment for property owners and tourists. As one example, NCDOT noted in its 2010 EA that the bridge will have to terminate in a full-height stub so that it can be continued farther into Rodanthe when continuing erosion cuts off planned temporary access ramps. Furthermore, NCDOT concedes that the bridge being in the surf will impede views and beach access for residents and visitors and likely will accelerate the erosion problems that already threaten structures in Mirlo Beach and Rodanthe, to the detriment of local property owners.

   The Bridge with Nourishment option for Rodanthe is not feasible either. It would have the same erosion problems as the longer Rodanthe bridge, and would also require a compatibility determination in order to deposit sand and construct dunes in the Refuge. As NCDOT acknowledges—as well as for the reasons given above—this activity is likely to be found incompatible with the Refuge. (Handout p. 10).

   Response:

   <u>Bridge in the Ocean as an Emergency Evacuation Route</u>. NCDOT disagrees with the commenter's assertion that the Phase IIb bridge in the existing NC 12 easement would be rendered unusable as an evacuation route once located in the ocean. This concern was also addressed on page C-32 of the Phase IIa EA. The Phase IIb Bridge within Existing NC 12 Easement Alternative would be designed to span the entire area that is

geologically susceptible to breaching in the Rodanthe breach area, which addresses the potential for future storms to create a new breach or inlet. The superstructure (the bridge beams and deck), would be placed above the projected storm surge associated with major storms so that it cannot be struck or damaged by the surge, and the depths of the supporting bridge piles would be designed to account for the possibility that the Phase IIb bridge in the existing NC 12 easement would ultimately be off-shore as beach erosion progresses in the area. Additionally, estimated costs for the Bridge within Existing NC 12 Easement Alternative take into consideration that the bridge will be in the ocean by 2060.

Access Problems and Impacts to Property Owners and Tourists. Changes in access and community impacts noted in the comment were documented in the 2008 FEIS (Section 4.1 beginning on page 4-2) and updated in the 2010 EA (Table 2-3 on page 2-24) for the Phased Approach/Rodanthe Bridge Alternative. They are updated again in this EA for the Bridge within Existing NC 12 Easement Alternative, for which the 2010 EA design of the Phased Approach/Rodanthe Bridge Alternative was modified to take into consideration the 2060 high erosion shoreline updated in 2012 and keeping in mind a desire to minimize community impacts. Access changes and community impacts, however, remain similar to those presented in the 2008 FEIS and 2010 EA. The effect of bridge piles in the ocean on beach erosion was documented in Section 4.6.8.4 of the 2008 FEIS (on page 4-67). Clarifications were made in Appendix C of the Phase IIa ROD in response to this commenter's comments 14 to 16.

Bridge within Existing NC 12 Easement and Beach Nourishment Alternative. This alternative was not selected as a detailed study alternative for Phase IIb for reasons documented in Section 2.4.1 of this EA.

9. **Comment:** "The proposed bridge from Rodanthe through the Pamlico Sound was originally proposed as part of the "Road North/Bridge South" and "All Bridge" alternatives. Because it now could also be combined with one of the other proposed options, we discuss it separately from the relocation options covered in the previous section.

   No matter which other option the proposed bridge would be linked to, a Rodanthe area bridge would require a new easement through two acres of estuarine emergent wetland areas in the Refuge in order to rejoin the existing NC 12 corridor; such a new easement would likely be denied as incompatible for the reasons given above. Here too, on-site compensatory mitigation would be impossible because there are no equivalent wetlands NCDOT could restore. For all these reasons, the NCDOT Handout concedes that this option is "[n]ot likely to be found compatible with the Refuge's mission and purpose" and thus it could not be constructed. (Handout at 10).

In addition, the proposed bridge would travel through areas of known submerged aquatic vegetation (SAV), which are also classed as EFH because they provide refuge from predators and foraging areas for juvenile and adult fish. As discussed above, the Magnuson-Stevens Act requires consultation with the Secretary of Commerce before any action is taken that might adversely affect EFH. In this case, the proposed bridge would fill approximately 1.4 acres of SAV (see FEIS at 4-88) and shade 5.3 acres of SAV (Handout at 10).

The bridge would also require a § 404 permit from the Army Corps of Engineers for discharge and fill in jurisdictional waters. Such discharges are not permitted if a practicable alternative exists that would have a lesser adverse impact on the aquatic ecosystem. 40 C.F.R. § 230.10(a)(2). As discussed earlier, the in-corridor Rodanthe bridge, as well as a long Pamlico Sound Bridge or a ferry system, would offer practicable alternatives with lesser adverse impact.

The Rodanthe terminus of this bridge would apparently be in the same location as the Rodanthe Bridge within Existing NC 12 Easement. As discussed above, NCDOT has acknowledged potential problems with the terminus of the latter option being located seaward of the projected 2060 shoreline. The same problem is likely to affect the Bridge on New Location option, raising its costs and increasing its environmental impact as a result.

Lastly, the proposed bridge would be quite expensive to construct due to the shallow water in the proposed bridge corridor. The water depth is less than six feet for virtually all of the bridge length. NCDOT is prohibited from dredging in SAV areas in order to use barges to construct the bridge, so instead a temporary work bridge would have to be constructed and the proposed bridge built off of that. (FEIS 4-90, 4-177). This is a much more expensive construction method than conventional barge-based bridge construction and likely means the estimates provided in the handout are artificially low."

Response:

<u>Refuge Compatibility</u>. NCDOT worked with Refuge representatives to identify an alignment for the Bridge on New Location Alternative that can be considered a minor modification and be permitted under the terms of a Special Use Permit. In a letter dated July 22, 2013, USFWS-Refuge indicated that with the provision of adequate mitigation to ensure no net loss of habitat quality or quantity, the Bridge on New Location Alternative as assessed in this EA could likely be considered a minor modification to the existing NC 12 easement. The proposed alignment minimizes the amount of new easement required within the Refuge, and it allows for the return of approximately 19.27 acres of the existing easement to be returned to the Refuge. The impacts of this alignment are assessed in Chapter 4 of this EA.

Magnuson-Stevens Act Consultation. The National Marine Fisheries Service (NMFS), which is part of the US Department of Commerce, is on the project's Merger Team and EFH consultation is a part of the Phase II environmental studies. Such consultation is needed for any alternative affecting the Atlantic Ocean, Pamlico Sound, and Oregon Inlet. NCDOT and FHWA are consulting with the NMFS as required. An updated assessment of SAV and EFH impacts is included in Chapter 4 of this EA.

US Army Corps of Engineers (USACE) Permit Requirements. USACE is on the project's Merger Team. The commenter's opinion on there being practicable alternatives to the Bridge on New Location Alternative at Rodanthe is noted. The reasonableness and practicability of the Pamlico Sound Bridge Corridor and Ferry Alternatives were revisited in the Phase IIa EA (Sections 2.3.1 and 2.3.2, beginning on page 2-5), and it was re-affirmed that neither alternative was reasonable or practicable. Comments on the Phase IIa EA related to these alternatives were addressed in Appendix C of the Phase IIa ROD.

Location of Alternative Seaward of Forecast 2060 High Erosion Shoreline. NCDOT's goal with the Parallel Bridge Corridor alternatives is, where possible, to place bridge termini and surface road relocations more than 230 feet beyond the forecast 2060 high erosion shoreline (i.e., in the area that is not expected to be threatened by high shoreline erosion and sand overwash through 2060). Taking into consideration the 2060 high erosion shoreline prepared in 2012, the NC 12 intersection of the Bridge on New Location Alternative in Rodanthe is now more than 230 feet beyond the 2060 high erosion shoreline.

As a part of the PBC/TMP Alternative, NCDOT is regularly monitoring the shoreline and reconsidering the high erosion shoreline as a part of deciding when to implement future phases of the PBC/TMP Alternative. If shoreline erosion were to ultimately manifest itself in a manner similar to the 2060 high erosion shoreline used in the 2008 FEIS, NCDOT would relocate the NC 12 intersection of the Bridge on New Location Alternative to a location where it would not be threatened. If intersection relocation were to ultimately involve a portion of the Rodanthe Historic District, that also would mean the primary contributor to the District (i.e., the Chicamacomico Life Saving Station), which is seaward of NC 12, would have been lost or partially lost to beach erosion, and the historic resource issues considered in developing the Bridge on New Location Alternative would be different.

Cost. The current and past cost estimates for the Bridge on New Location Alternative assumed that a work bridge would be needed to erect a bridge when over SAV, as discussed in the response to this organization's comment 4 in Appendix C of the Phase IIa EA.

C.3 Public Comments Related to Phase IIb Made During the Phase IIa EA Comment Period

The comments and responses in this section originally appeared in the October 2013 Phase IIa ROD under the heading "Phase IIb Rodanthe Breach." They were considered during the preparation of this EA and are presented here for the reader's convenience with updates as needed.

- Natalie McIntosh

  Ms. McIntosh states that an "emergency status" is needed for the Rodanthe 'S' Curves and Mirlo Beach area. She understands from conversations with Mr. Drew Joyner that there is a possibility for an emergency bridge solution prior to the implementation of Phase IIb. She states that the perception that the island is "cut off" must be avoided.

  Response: *The Governor declared the situation on NC 12 in the area between the temporary bridge at Pea Island inlet and the village of Rodanthe a State of Emergency on March 19, 2013. This declaration is expected to facilitate the implementation of interim measures to stabilize NC 12 at the Rodanthe 'S' Curves Hot Spot, prior to the construction of a long-term improvement at this location (Phase IIb). A temporary bridge was considered at the Rodanthe 'S' Curves Hot Spot as one option to stabilize NC 12 in the interim prior to the construction of Phase IIb. Beach nourishment also was assessed and is preferred as an interim measure. A permit application for an interim nourishment program at the Rodanthe 'S' Curves Hot Spot was submitted by NCDOT to USACE on June 13, 2013. USACE approved the EA for an interim beach nourishment project at the Rodanthe 'S' Curves Hot Spot on October 15, 2013. USACE concluded that this interim project would have no significant impacts. NCDOT continues to work with USACE to implement this interim program.*

- Scott and Martha Caldwell

  Mr. and Mrs. Caldwell are the owners of the Island Convenience Store and Midgett's Campground. They list the impacts to their businesses under each of the Phase IIb alternatives, including the loss of their convenience store with the existing easement alternative and the loss of their campground with the bypass through the sound alternative. They conclude that the sound bypass is their preference between the two, because the convenience store is their main source of income.

Response: *This position is acknowledged. The commenters' observations on the impact of the proposed alternatives to their properties are included in this EA in Section 4.2.1.*

- Keith McCulloch and Brian Van Druten

  Mr. McCulloch is in favor of the bypass in the sound alternative and is against the existing easement alternative.

  Mr. Van Druten states that he supports the Phase IIb option that would bypass the 'S' curves by going out into the Pamlico Sound.

  Response: *These positions are acknowledged. A "sound alternative" is one of the detailed study alternatives assessed in this EA as the Bridge on New Location Alternative.*

- Stephanie Joy Sweeney

  Ms. Sweeney asks NCDOT to reconsider beach nourishment using dredged sand to sustain sports and recreation in the Rodanthe area. With regard to the bridge alternatives under consideration, she asks that NCDOT consider pushing the sound side bridge farther from shore to make it less of an eyesore and to provide visuals of the side view of the bridges from a 2nd or 3rd story perspective.

  Response: *The Merger Team (NCDOT, FHWA, and federal and state environmental resource and regulatory agencies) has advanced only bridging alternatives for detailed study in this EA. The reasons that beach nourishment was found not to be a reasonable long-term improvement are addressed in this EA in Section 2.4.1. This EA includes an analysis of impacts, including visual impacts to sound-side homes and homes along NC 12 (see Section 4.2.2). Visualizations are included in this EA as Figure 8 and Figure 9. The sound side bridge (Bridge on New Location Alternative) is 930 to 950 feet farther west in Pamlico Sound than the bridge location discussed in the 2010 EA that was presented to the public for discussion at the Phase II scoping meetings. (See Figure 4 of this EA.) This change in bridge location was made in the context of minimizing the Refuge impacts of this alternative.*

- Patrick Munson, Dhanyo Merillat-Bowers, and Janet Doll

  Dr. Munson, a physician who lives in Waves and works on the mainland, stressed that the current pace of the Bonner Bridge project is not sufficient to prevent the collapse of the communities on the Outer Banks and that a permanent solution must happen sooner. He also states that the situation at the 'S' curves has advanced beyond the ability of the phased Bonner Bridge project

to address it, and supports beach nourishment as a solution between now and a permanent fix.

Ms. Merillat-Bowers is concerned that the livelihood of the island is being held hostage by the lawsuits brought by wildlife advocates and believes that beach nourishment is needed now in addition to a permanent fix.

Ms. Doll thanks NCDOT for their hard work on maintaining the 'S' Curve Hot Spot at Rodanthe and states that while a permanent fix is needed, it will take too long to construct the bridges and roads. She states that a short-term solution needs to be planned and implemented immediately, saying that tourists need a safe way to get on and off the island in order to avert disaster for the area.

> ***Response:*** *These positions and concerns are acknowledged. The Governor declared the situation on NC 12 in the area between the temporary bridge at Pea Island inlet and the village of Rodanthe a State of Emergency on March 19, 2013. This declaration is expected to facilitate interim measures to stabilize NC 12 (which could involve beach nourishment) at the Rodanthe 'S' Curves Hot Spot, prior to the implementation of a long-term improvement at this location (Phase IIb).*

- Carol Dawson

Ms. Dawson emphasizes that no beach nourishment has happened on the island in 39 years, and that dredging and beach nourishment is needed to stabilize the hot spots and secure NC 12 as safe passage to the mainland. Ms. Dawson is opposed to the Bridge within Existing NC 12 Easement Alternative. She believes that the NCDOT's methods have been reactionary rather than proactive, and that NCDOT should look to neighboring states for preventative measures.

> ***Response:*** *These positions are acknowledged. Section 2.4 of the Environmental Assessment (EA) on Phase IIa explains why Beach Nourishment was eliminated from further consideration as a long-term improvement for Phase IIa. The Merger Team (NCDOT, FHWA, and federal and state environmental resource and regulatory agencies) has advanced only bridging alternatives for detailed study in this Phase IIb EA. The reasons that Beach Nourishment has been found not to be a reasonable long-term improvement for Phase IIb are addressed in this EA in Section 2.4.1.*

- Michael R. Martin

In reference to recent NCDOT actions of moving sand from the NC 12 right of way and using it to cover sand bags in the 'S' Curve Hot Spot area, Mr. Martin states that it is a waste of time and money to continue these short-term cosmetic

fixes. Mr. Martin wonders whether the dredging permits have been obtained, and if not, who is holding up the process.

Response: *Covering the sandbag piles in the Rodanthe 'S' Curves Hot Spot area is required by state law and the permit that allowed for the placement of the sand bags. The sand used was the most readily available and its transport did not require a permit. The Governor declared the situation on NC 12 in the area between the temporary bridge at Pea Island inlet and the village of Rodanthe a State of Emergency on March 19, 2013. This declaration is expected to facilitate the implementation of interim NC 12 stabilization at the Rodanthe 'S' Curves Hot Spot.*

- Thomas Dolina

Mr. Dolina supports a longer span avoiding the 'S' Curves.

Response: *This position is acknowledged.*

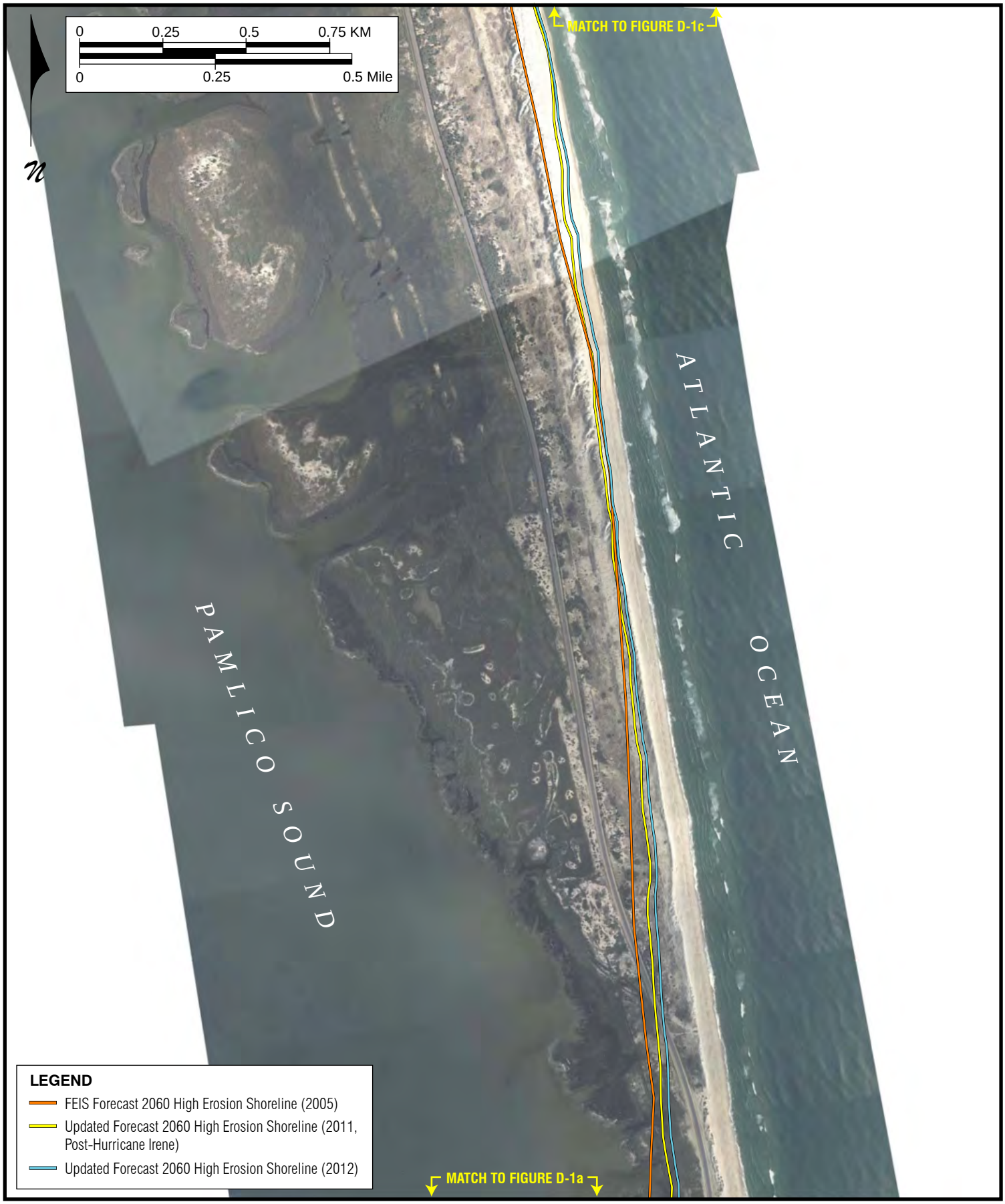
Appendix D

2060 High-Erosion Shoreline

Aerial date: April 13, 2012

COMPARISON OF FEIS AND UPDATED FORECAST 2060 HIGH-EROSION SHORELINE LOCATIONS

Figure D-1a



Aerial date: April 13, 2012

COMPARISON OF FEIS AND UPDATED FORECAST 2060 HIGH-EROSION SHORELINE LOCATIONS

Figure D-1b

Aerial date: April 13, 2012

COMPARISON OF FEIS AND UPDATED FORECAST 2060 HIGH-EROSION SHORELINE LOCATIONS

Figure D-1c

Aerial date: April 13, 2012

COMPARISON OF FEIS AND UPDATED FORECAST 2060 HIGH-EROSION SHORELINE LOCATIONS

Figure D-1d

Aerial date: April 13, 2012

COMPARISON OF FEIS AND UPDATED FORECAST 2060 HIGH-EROSION SHORELINE LOCATIONS	Figure D-1e

Aerial date: April 13, 2012

COMPARISON OF FEIS AND UPDATED FORECAST 2060 HIGH-EROSION SHORELINE LOCATIONS

Figure D-1f

Aerial date: April 13, 2012

COMPARISON OF FEIS AND UPDATED FORECAST 2060 HIGH-EROSION SHORELINE LOCATIONS

Figure D-1g

Appendix E

Relocation Reports

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	13201.10 28025	COUNTY	Dare	Alternate Red of 2 Alternate
T.I.P. NO.:	B-2500B			
DESCRIPTION OF PROJECT:	NC-12 Rodanthe Long-Term Improvements, Bridge on New Location Alternative			

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	2	0	2	0
Businesses	0	2	2	0
Farms	0	0	0	0
Non-Profit	0	0	0	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	0	0	2	0

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	0	150-250	0
40-70M	0	250-400	0
70-100M	0	400-600	0
100 UP	2	600 UP	0
TOTAL	2		0

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	0	150-250	0
40-70M	0	250-400	0
70-100M	0	400-600	0
100 UP	38	600 UP	0
	38		0

ANSWER ALL QUESTIONS

Yes	No	*Explain all "YES" answers.*
	X	1. Will special relocation services be necessary?
	X	2. Will schools or churches be affected by displacement?
X		3. Will business services still be available after project?
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	X	7. Will additional housing programs be needed?
X		8. Should Last Resort Housing be considered?
	X	9. Are there large, disabled, elderly, etc. families?
	X	10. Will public housing be needed for project?
X		11. Is public housing available?
X		12. Is it felt there will be adequate DSS housing housing available during relocation period?
X		13. Will there be a problem of housing within financial means?
X		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 18

REMARKS (respond by number)

3. There are other businesses in the area outside the acquisition areas.

4. 1) Strip Mall with the following shop:

Island Convenience Auto Repair Garage – 4 employees

The other 5 shops in this strip mall are vacant in anticipation of the project.

2) Money's Worth Rentals – 3 employees

Please note that a Campground is in the acquisition area, which has 23 RV hook-ups, 7 of which are currently occupied within the acquisition area of this alternate, with only 5 hook-ups out of the 23 being unaffected by the project.

6. MLS, Realtor.com, newspaper, local realty offices

8. As required by law

11. Economic Improvement Council, Inc. handles Section 8 housing for Dare County

12. There are plenty of houses for sale in the area.
13. This might be an issue due to the high prices of some of the local homes for sale.
14. MLS, Realtor.com, newspaper, local realty offices

	9/19/13		9/19/13
Robert Woodard Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	13201.10 28025	COUNTY	Dare	Alternate Blue of 2 Alternate
T.I.P. No.:	B-2500B			
DESCRIPTION OF PROJECT:	NC12 -- Rodanthe Long-Term Improvements, Bridge within Existing NC 12 Easement			

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	5	0	5	0
Businesses	1	1	2	0
Farms	0	0	0	0
Non-Profit	0	0	0	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	0	0	2	3

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	0
20-40M	0	150-250	0	20-40M	0	150-250	0
40-70M	0	250-400	0	40-70M	0	250-400	0
70-100M	0	400-600	0	70-100M	0	400-600	0
100 UP	5	600 UP	0	100 UP	38	600 UP	0
TOTAL	5		0		38		0

ANSWER ALL QUESTIONS

Yes	No	*Explain all "YES" answers.*
	X	1. Will special relocation services be necessary?
	X	2. Will schools or churches be affected by displacement?
X		3. Will business services still be available after project?
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	X	7. Will additional housing programs be needed?
X		8. Should Last Resort Housing be considered?
	X	9. Are there large, disabled, elderly, etc. families?
	X	10. Will public housing be needed for project?
X		11. Is public housing available?
X		12. Is it felt there will be adequate DSS housing housing available during relocation period?
X		13. Will there be a problem of housing within financial means?
X		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 18

REMARKS (Respond by Number)

3. There are other businesses in the area outside the acquisition areas.

4. 1) Strip Mall with the following shop:

Island Convenient Auto Repair Garage – 4 employees

The remaining shops in the strip mall are vacant in anticipation of the project.

2) Island Convenient Store and Liberty Gas – 5 employees

6. MLS, Realtor.com, newspaper, local realty offices
8. As required by law.

11. Economic Improvement Council, Inc. handles Section 8 housing for Dare County

12. There are plenty of houses for sale to cover the displacees.
13. Some houses in this market may be priced too high for our displacees.
14. MLS, Realtor.com, newspaper, local realty offices

NOTE: The proposed 15' Aerial Easements (AUE) may not interfere with any existing private septic systems and/or drain lines. However, if they do, then a determination of the actual location will be necessary as well as any possible "repair areas". There could also be additional relocatees due to these issues, which are not being shown on this report.

Additionally. Please avoid the cemetery on Sea Gull Street

Robert Woodard Right of Way Agent	11/6/13 Date	Relocation Coordinator	11/6/13 Date

FRM15-E