

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

Dear Mr. Joyner:

I am writing on behalf of the MirloBeach Homeowners Association (MBHOA) as authorized by their board of directors (of which I am a member) to comment on the Rodanthe Bridge Alternatives, both the New Location Alternative (NLA), which is the current NCDOT preferred alternative, and the Existing Easement Alternative (EEA), which is the previous NCDOT preferred alternative.

The MBHOA opposes both bridge alternatives and favors beach nourishment as the long-term solution for protecting NC 12 in northern Rodanthe. A 2-mile bridge in either location defies common sense. However, these options are believed to be the most expedient politically and from a regulatory perspective. This seems nothing short of a tragedy of governance and a mockery of the Merger Process, which has been a laudable effort to create a consensus among many agencies with divergent missions. We implore NCDOT and the Merger Team to do what is best for the long term, for the citizens of Dare County, and the millions of visitors to Hatteras Island from all over the world. The reasons for our position are summarized below. Over the past 5 years, we have been in regular and extended communication with a number of people who are very knowledgeable about different aspects of the situation (including Stan Riggs, Spencer Rogers, Tim Kana, Mike Bryant, Dennis Stewart, Beth Smyre, Jerry Jennings, Warren Judge, and a number of local residents and retailers). In this public document, we prefer to not name individuals as information sources; however, we would be happy to provide further details about our sources, our analyses, and our organization upon request.

1. Cost effectiveness and flexibility. The initial estimated cost of a Rodanthe Bridge (circa 2013) was approximately \$100 million; the next year the estimated cost had grown to \$200 million. We find it hard to believe that the cost of a bridge to be constructed in 2017 or 2018 is still \$200 million. Moreover, this cost is incurred immediately and protects only 2 miles of NC 12. It has no option value. Additionally, maintenance cost in the sound or beach/ocean will be very high. For the NLA, we wonder if the design specifications require standards sufficient to sustain inlet formation anywhere along the bridge that might change the water depth from 3 - 6 feet to 10 - 20 feet. Beach nourishment on the other hand, is less expensive and provides tremendous flexibility. It is a solution that can be applied quickly to anywhere on Hatteras Island where NC 12 might be damaged. From a purely financial perspective, it is very attractive. For example, a \$200 million "endowment" to support nourishment would \$8 million per year (at 4% return rate), which more than pays for the 3-year expected life of the recent emergency nourishment. Informal analyses of the emergency nourishment after 21 months (both our own and that of one of the coastal scientist named above) suggests that this level of nourishment will protect NC 12 for 5 -10 years. If that proves true over the long run, nourishment is MUCH less expensive. Moreover, in this endowment calculation, the \$200 million would always be available in the future to help build a bridge if nourishment fails to be sustainable, or if there is an

unanticipated natural disaster because the ongoing nourishment is being funded only by returns on the endowment. Other forms of present value analyses lead to similar conclusions. More generally, this type of real options approach to long term strategic planning is the dominant best practice in the private sector (at least for large corporations). We realize that things are different in the public sector, but still ... that is no excuse for financial mismanagement.

2. The current process (i.e., Revised Environmental Assessment (EA) for Phase IIb of the Bonner Bridge Replacement Project) is out of date, unfair, and possibly illegal; a new, thorough, evidence-based analysis of the alternative solutions is needed. Although the Peer Exchange panel of coastal science experts recommended against nourishment as a long-term solution, they admit in private that this opinion is based on general knowledge of beach erosion and not on empirical data from this particular beach. In the words of one of the experts, it was based on "back of the envelope" calculations. Much more directly applicable data is now available from the emergency nourishment of this hot spot and from the Nags Head nourishment project. The opinions of the panel experts can now be informed by hard data. Informally, the opinion of virtually everyone on Hatteras Island, including people close to the decision makers, is that this process is a charade designed to make good on deals cut behind closed doors by NCDOT and SELC.

3. Then NCDOT Secretary Tata promised that beach nourishment would be re-evaluated in light of new data. In a letter from Secretary Tata (April 10, 2013) that responded to our letter requesting further study based on data from nourishment, he repeated the arguments for the NCDOT preferred solution (which is no longer preferred) and then said, "*Nevertheless, NCDOT will review the recent Nags Head beach nourishment project, data collected by the USACE, and other relevant information to determine if further consideration of a long-term beach nourishment alternative is warranted.*" Governor McCorry's name is on the letterhead along with Tata's, and he was copied the letter. We expect the State of North Carolina to honor its explicit commitments.

4. Bridges create a serious public safety hazard. Currently, both the sound and the ocean are aquatic playgrounds almost all year long. There are no hard structures in these waters. The NLA bridge puts hard structures into the sound; the EEA bridge is designed to be on the beach and in the active ocean with 10 years as erosion proceeds unchecked. In the sound, such structures are serious hazards for boaters when the weather is bad. Boats in distress will not simply be grounded in shallow water (which is what happens now), they face the real risk of being smashed against the pylons. The bridge will also become a hazard to kite boarders for similar reasons, and because kite boarding is an extreme sport and boarders will be strongly tempted to use the bridge for stunts. For the EEA bridge, most beach users will avoid the hard structures, but many children and adults, surfers, boogie boarders, and swimmers will find these structures attractive and entertaining once they are on the beach and in the water. Serious injuries and drowning fatalities will increase because of the power of the waves (which is unexpected to most vacationers) and the fact that scouring around the piles and the formation of stable, deepened rip currents will create unexpected hazards. These outer banks beaches are unprotected by lifeguards, and we observe very poor decision making by parents, children, and beginner-level surfers all the time. Changes in these risk factors will be difficult to measure on a

short-term basis, but over the 50-year lifetime of the bridge, serious injuries and fatalities will increase. If bridges were a cancer risk, the NLA and EEA would have been ruled out long ago.

5. Bridges reduce public access to Hatteras Island. Although the stated mission of the USFWS for wildlife refuges emphasizes protecting natural habitats, especially endangered species, it does include providing benefits to the general public. NC 12 through the Pea Island Wildlife Refuge currently provides a tremendous public benefit. Anyone with a car can pull over, walk 100 yards and experience the pristine beauty of uncrowded (often empty) natural beaches. It is essentially free, like the Mall in Washington DC -- a national treasure. Bridges will take 2 out of 11 miles of access away from the general public.

6. By design, both bridges remove all protection that property owners have against both erosion and inlet formation and create uncompensated economic losses for property owners in northern Rodanthe. Erosion is predictable and expected. Inlet formation is commonplace over long time horizons, but location and timing are hard to predict. A major inlet at this location will gradually move south and destroy many properties (i.e., 100 - 150 homes) along the length of either bridge before NCDOT begins protecting NC 12 (and the homes on either side). Over and above this probabilistic risk, the negative effect on property value is virtually certain. A small number of citizens will be needlessly required to suffer large economic losses (approximately \$100,000 per owner, much more for those immediately adjacent to a bridge). This violates any common sense definition of fairness. Real estate sales have been a highly promoted driver of economic growth in this area for a long time and, as such, deserves protection.

7. As described in the earlier Environmental Assessment, a bridge on the Current Easement will disrupt or destroy the visual and cultural characteristics of the Outer Banks of North Carolina in this area. Perhaps worse, this area is the visitor entrance to all of Hatteras Island and for many years it will have the appearance of a "New Jersey interstate ghetto." Houses will be continually dropping into the sea, creating debris and a "war zone" appearance, such as we experienced after hurricanes Irene and Sandy. However, unlike those natural disasters, local property owners will not be inclined to invest in cleanup and rebuilding. The Outer Banks brand image will be irrevocably harmed (and recent Chamber of Commerce studies have confirmed that this image is a major asset of the Outer Banks and North Carolina).

8. The environmental risks of beach nourishment have been greatly exaggerated. Evidently, the main objection to nourishment at the policy level of the USFWS is the temporary reduction in mole crab (or sand flea) availability after a nourishment project, and mole crabs are a primary food source for waterfowl. However, there are methods for mitigating this temporary disturbance, including some developed by USFWS. Inlet formation is a risk anywhere on the Outer Banks. However, this portion of Hatteras Island has not had a "natural" inlet for over 100 years. The inlet that was formed during Hurricane Irene (which was itself a 100-year storm) was "man made" insofar as it was primarily caused by the clearing of Paul's Ditch and roadside drainage ditches (which focused an exceptional volume of water into the ditch) plus the sand bags installed on the east side on NC 12 (which allowed the water to break through in only one area). This assessment is now acknowledged by coastal science experts.

Thank you for your consideration of the concerns of the Mirlo Beach Homeowners Association.

Sincerely,

A handwritten signature in black ink that reads "Wes H." in a cursive style.

Wes Hutchinson
Vice President, Mirlo Beach Homeowners Association