

Herbert C. Bonner Bridge Replacement Project

Compatibility Issues for Pea Island National Wildlife Refuge in North Carolina

For more information, contact:

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Black-necked stilt in Corridor 1.
Photo: USFWS



Wildlife First Goal

Storm Maintenance of NC 12
Photo: USFWS



Mixing Short & Long-Term Fixes Costs More

Aerial of Oregon Inlet, facing south.
Photo: USFWS



In August, 2006, North Carolina Department of Transportation (NCDOT) proposes to start construction of a replacement bridge for the North Carolina Highway 12 (NC 12) Herbert C. Bonner Bridge (Bridge) over Oregon Inlet that makes landfall on Pea Island National Wildlife Refuge (Refuge) and lies within the Cape Hatteras National Seashore. The current bridge is nearing the end of its useful life; NCDOT wants a new bridge completed by 2010. The Refuge Manager is working with NCDOT and many other agencies on a National Environmental Policy Act (NEPA) Merger Team to develop a solution that will meet the needs of the community and protect the Refuge. In this dynamic ecosystem, a solution with long-term benefits to both people and their transportation system is the best approach.

Background

In 1938, the Refuge on the north end of Hatteras Island was reserved by Executive Order for migratory birds and other wildlife to advance the purposes of the Migratory Bird Conservation Act. It is the Refuge Manager's responsibility to ensure that all uses of the Refuge are compatible with the Executive Order and the National Wildlife Refuge System Improvement Act of 1997. Pea Island is used by hundreds of thousands of migratory birds and many other species of wildlife each year. The Refuge is also home to several threatened and endangered species.

More than forty years ago, the Bridge and NC 12 were constructed through and onto the Refuge. The environment's impact on the Bridge and road was not fully understood at the time of construction. Constant beach erosion, severe weather and high volume of traffic continually forces NCDOT to protect the integrity of the road system. **As much as \$50 million was spent between 1987 and 1999 to repair and protect the Bridge and NC 12 from the ocean.** The ocean is moving 10 to 15 feet closer to the road every year, requiring NCDOT to create temporary dunes, remove sand, and relocate sections of highway in a number of locations, called "hotspots", along NC 12 south of the Bridge. This maintenance is costly (\$160,000 to \$1 million or more a year) and has a high impact on the Refuge resulting in the loss of wildlife habitat. Historically, Oregon Inlet has moved about 75 feet (23 meters) to the south and 16 ft (5 m) to the west each year. In 1989, NCDOT built a 3,152-foot long mound of large rocks near the south shoreline of Oregon Inlet to protect the Bridge. This terminal groin halted the natural movement of the inlet.

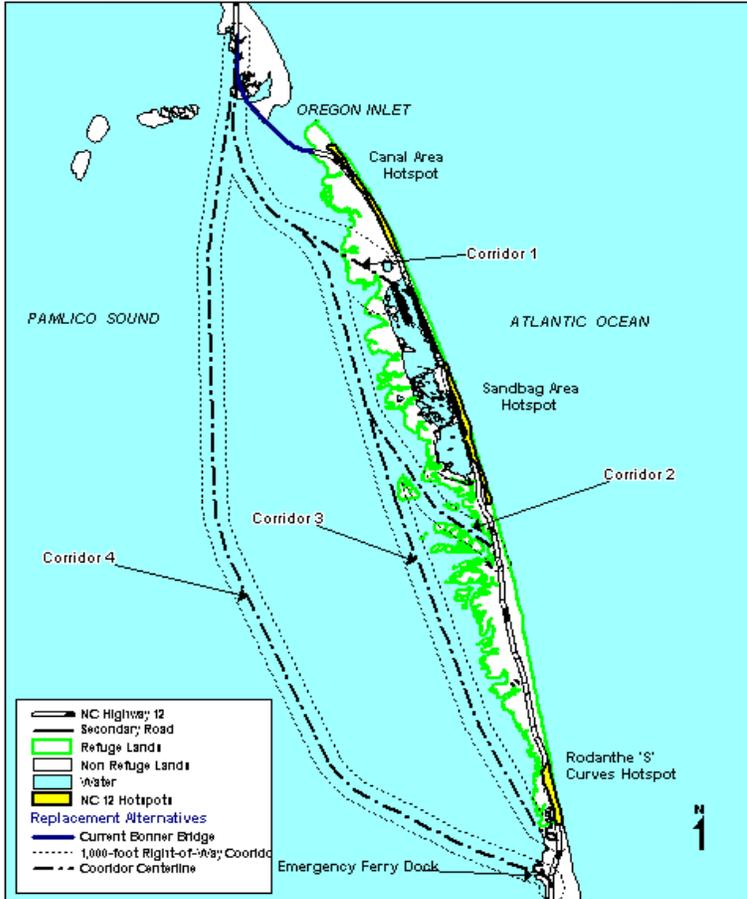
Moving from Emergency and Interim Solutions

Initially, NCDOT proposed building a new bridge a few hundred feet west of and parallel to the existing Bridge. This proposal was not likely to be considered compatible. Subsequently, NCDOT has presented four additional alternatives (see map on back).

Alternative/Corridor 1 would result in the shortest bridge construction — 6.2 miles; \$138 million. The bridge would have the greatest impact on migratory bird habitat by crossing 1.2 miles of Refuge land and might eliminate one of the "hotspots".

Alternative/Corridor 2 would result in a bridge that makes landfall in the middle of the Refuge — 9 miles; \$240 million. This

Proposed Relocation of the Herbert C. Bonner Bridge



Long-Term Solution is the Most Cost Effective, Safest, and Reliable Transportation Corridor

impact on Refuge land. The NEPA Merger Team allows the Refuge Manager to be actively involved in the selection process.

While Corridor 1 would be the less expensive of the two alternatives, it has greater impact on migratory bird habitat and may materially detract from or interfere with the “wildlife first” mission of the Refuge.

A bridge in Corridor 1 would not address the major issue of maintaining NC 12 through the Refuge. To date, NCDOT has made only emergency and interim “fixes” that last from a few days to 10-20 years, which would not correlate with the plan for a new bridge expected to serve for 75 years.

alternative bypasses two “hotspots” but does not avoid the third and has more impact on submerged aquatic vegetation (SAV) beds, which are very important areas for commercially-valued fishery resources.

Alternative/Corridor 3 would result in a bridge making landfall south of the Refuge — 14 miles; \$347 million. This alternative would bypass all three Refuge “hotspots” but would have the most impact on SAV beds. This is the most expensive alternative due to the high cost of shallow-water construction.

Alternative/Corridor 4 proposes the longest bridge and also would result in a bridge making landfall south of the Refuge — 17 miles; \$260 million. This alternative would bypass all three Refuge “hotspots” and would have the least impact on SAV beds. With an elevated road on pilings deep into the Pamlico Sound, this structure would eliminate all maintenance of NC 12 within the Refuge **with an annual savings of \$160,000 to \$1 million or more.**

After reviewing all of the proposals NCDOT eliminated Corridors 2 and 3 because of cost and impact on submerged aquatic vegetation. Currently, additional environmental studies have been initiated on Corridors 1 and 4.

Best Solution (Meets needs of the public/protects Refuge)

The U.S. Fish and Wildlife Service supports a safe, long-term, reliable transportation corridor that would have the least

Corridor 4 would reduce long-term maintenance costs, improve safety and reliability, and cause less environmental impact. While the bridge in Corridor 4 would cost more than the bridge in Corridor 1, this scenario would effectively eliminate the need to maintain NC 12 through the Refuge at large cost-savings to NCDOT. A bridge in Corridor 4 is the better long-term solution for the Refuge and the public.

