



United States Department of the Interior



IN REPLY REFER TO:
SER-PC

NATIONAL PARK SERVICE
Southeast Regional Office
Atlanta Federal Center
1924 Building
100 Alabama St., SW.
Atlanta, Georgia 30303

MAY 13 2010

Memorandum

To: Superintendent, Cape Hatteras National Seashore

From: *Bohling* Regional Director, Southeast Region *[Signature]*

Subject: Finding of No Significant Impact for the Improvements to Highway NC-12,
Cape Hatteras National Seashore

Attached please find the signed Finding of No Significant Impact for the above referenced project.

If you require further assistance or information, please contact the Acting Chief, Planning and Compliance Division, at 404-507-5701.

Attachment



National Park Service
U.S. Department of the Interior

Cape Hatteras National Seashore
North Carolina



INTRODUCTION

The National Park Service (NPS) in cooperation with the Federal Highway Administration (FHWA), proposed to make improvements to North Carolina (NC) 12 from Whalebone Junction south for a distance of 5.28 miles on Bodie Island at Cape Hatteras National Seashore (Seashore). NC 12 is the evacuation route for the Outer Banks Villages of (from the Village of Ocracoke northward, in order): Ocracoke, Hatteras, Frisco, Buxton, Avon, Salvo, Waves, Rodanthe, and South Nags Head.

Improvement of NC 12 was proposed with the intent of meeting the following objectives:

- Maintenance of NC 12 as safe public access;
- Reduction of potential conflicts between vehicles, pedestrians, and bicyclists using NC 12;
- Improvement of visitor access along Bodie Island; and
- Minimization of impacts to natural, cultural, and scenic and aesthetic resources.

An Environmental Assessment (EA) was prepared in March 2010 to report on issues and concerns about the proposed improvement of NC 12, to provide an opportunity for public comment on alternatives, and as a necessary step in determining the impact of these alternatives on the Seashore. The EA includes response letters and emails from Federal, State, and local governments to the NPS/FHWA with interest and responsibility for the protection of specific cultural and natural resources, including management of coastal areas and species of concern (Appendix A). The EA also includes a draft Statement of Findings for Floodplains (Appendix C). Alternative C was identified in the EA as the Preferred Alternative.

This document records a Finding of No Significant Impact (FONSI) as required by the National Environmental Policy Act of 1969, and a determination of no impairment as required by the NPS Organic Act of 1916.

SELECTED ALTERNATIVE

Based on the analysis presented in the EA, the NPS and FHWA have selected the Preferred Alternative (Alternative C) for implementation. The proposed project will include resurfacing of the existing deteriorated roadway pavement. Several options regarding the resurfacing of NC 12 are under consideration, and will be refined during final design of the proposed action.

Resurfacing will most likely include milling of the existing pavement and recycling this material into a new asphalt wearing surface and/or overlaying asphalt over the existing roadway surface. The resurfacing strategy chosen will be based on factors such as cost, life-expectancy, and durability.

The paved shoulders will be widened. At the edge of the existing pavement the vegetation and soils will be removed to create an area to place approximately five inches of aggregate base. The five-foot-wide shoulders will be in accordance with the Guide for the Development of Bicycle Facilities, published by the American Association of State Highway and Transportation Officials, which recommends that paved shoulders be at least four feet wide to accommodate bicycle travel. The NPS/FHWA proposal to widen shoulders of NC 12 from Whalebone Junction south to mile 5.28 (the project area) will reduce the existing potential conflicts between vehicles, bicyclists, and pedestrians currently using NC 12. The high-speed (55-mph) and often heavy vehicular use of NC 12 within the project area are challenging conditions for experienced road-bicyclists, and the proposed improvements will not reduce the speed limit or use of NC 12 by vehicles. This segment of NC 12 will not be designated as a portion of any NCDOT Bicycle Route. NC traffic laws define the rights and duties motorists and bicyclists have on the State's roadway. State traffic laws consider bicycles, mopeds, and motorized bikes as legal road vehicles, and subject to the same laws. Bicyclists have the right to ride on any public-maintained roadway, independent of its designation as a NCDOT Bicycle Route¹. However, bicyclists and pedestrians using the widened shoulders assume the risks to their health and safety as motorists use this high-speed, high-volume vehicular highway.

Five parking areas located along the project area will be milled and/or paved. The Whalebone Information Station parking area will be repaved within the existing pavement limits. A small gravel and grass section within the parking area will be paved. Four existing paved pull-offs along the road will be repaved to match their existing dimensions. Three of the pull-offs include an additional gravel area extending beyond the paved area. The gravel was placed due to vehicles parking in the grass beyond the paved pull-off. In order to discourage vehicles from parking beyond the paved area, the gravel will be removed, and bollards will be placed adjacent to the pullout. Gravel will be left in place where needed to create a trail to the wildlife overlook and hunting blind trails.

Wooden bollards will be replaced where necessary, and regulatory and warning signs will be replaced to ensure that there is adequate retroreflectivity. Retroreflectivity is the reflection of light, typically in the form of vehicle headlights, at night-time.

Along NC 12, three culvert locations contain culverts that have deteriorated and are beyond their useful life. These locations are at approximately mile 1.86, 2.67, and 3.13 (measuring south from Whalebone Junction – mile 0.0). At mile 1.86 there are two culverts placed parallel to each other. Both of these culverts will be replaced with the same size and length culverts. Mile 2.67 has a single culvert. This culvert will be replaced with the same size and length culvert. The culvert at mile 3.13 is currently too short. The ends of the culvert are within the vegetated shoulder and recovery zone, and are indicated as a potential hazard to motorists with plastic delineators. This culvert will be replaced with the same diameter culvert, though it will be

¹ Bicycling on the Outer Banks. April 12, 2010.

<www.outerbanks.org/activities/land_activities/bicvcycling_in_the_outerbanks.asp>

longer. In order to replace the culverts, an area surrounding the culverts will be contained and the water will be pumped out.

Portions of NC 12 will be closed to traffic in order to resurface the road and replace the culverts. During lane closures, one lane of traffic will be closed, and traffic in the north and south bound directions will alternate use of the open traffic lane. Signs and flaggers will be in place to direct traffic. Should evacuation be necessary during construction, construction will be halted, and both lanes of traffic will be opened to accommodate evacuating traffic.

Staging will take place in previously disturbed, paved areas. Locations that may be used for staging include the paved area which previously served as an access road and parking for the U.S. Coast Guard Station, or the Bodie Island Maintenance Facility, located just south of the southern end of South Old Oregon Inlet Road. Construction vehicles will be parking at the staging location when not in use, and materials such as aggregate and topsoil will be stockpiled there.

Construction will most likely take place in the spring or fall. Asphalt plants are in operation from March 15th through December 15th. Construction will also be timed to avoid the peak visitor season for the Seashore during the summer months. It is estimated that the Selected Alternative will be constructed in 14 weeks.

MITIGATING MEASURES

The following are mitigation measures related to construction activities to be implemented under the Selected Alternative (Alternative C).

- Temporary BMPs will be utilized to minimize erosion and sedimentation from ground disturbing activities that expose bare soil. The BMPs may include the use of silt-fence, sediment logs, erosion matting, or check dams. These BMPs will be used only during construction and will be removed once the disturbed area has been permanently stabilized.
- Any dewatering activities to replace the culverts will include the use of a filter bag to filter pumped water. Pumping water directly into the channels will be prohibited. Filter bags will be placed to minimize disruption to surrounding wetlands.
- Disturbed soil will be re-vegetated using specific native seed mixes that do not include invasive or exotic species.
- Any soil excavated during construction will be stockpiled and reused as fill if needed. Fill material is not anticipated for this project; however, should additional soil be needed, the soils will be clean, native soils.
- Should construction unearth previously undiscovered archeological resources, work will be stopped in the area of any discovery and the Seashore will consult with the State Historic Preservation Officer/Tribal Historic Preservation Officer and the Advisory Council on Historic Preservation (ACHP), as necessary, according to §36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during

construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) will be followed as appropriate.

- Travel lanes of NC 12 will not be closed between Memorial Day and Labor Day. Lanes will not be closed on National holidays or weekends. From Memorial Day through Labor Day, construction will only take place from Tuesday through Thursday.
- The existing access roads, parking areas, and concrete walkways associated with the previous locations of the U.S. Coast Guard Station, U.S. Lifesaving Station, and boathouse will be considered for use as potential staging areas.
- To compensate for temporary and permanent wetland impacts, wetland enhancement will be accomplished by controlling infestations of non-native common reed (*Phragmites australis*) using manual, mechanical, or chemical treatments.
- The access roads, parking areas, and concrete walkways associated with the U.S. Coast Guard Station, U.S. Lifesaving Station, and boathouse may be removed as mitigation for floodplain impacts and/or stormwater impacts. The need for and amount of impervious surface removal will be determined through coordination with the North Carolina Division of Water Quality and Division of Coastal Management.
- Grassed swales may be utilized to treat stormwater resulting from increased impervious surface in the project area. Coordination with the North Carolina Division of Water Quality will continue through the finalization of the project design to determine whether permanent BMPs are necessary to treat stormwater created from the widened shoulders. Coordination to date has indicated that should permanent BMPs be necessary, grassed swales will work best in a linear transportation system to improve infiltration of stormwater. The treatment goal will be to control the first 1.5 inches of rainfall through infiltration, if possible. The grassed swales will have a two-foot wide bottom and a three-to-one or five-to-one slope. The extra runoff will be allowed to spill over the back sides of the swale to sheet flow behind it. Grassed swales will only be placed where they could be constructed without impacting wetlands, and where the rainfall drains according to the slope of the road.
- Any sand heather (*Hudsonia tomentosa*) potentially impacted by the proposed action will be relocated by a NPS Management Biologist to a suitable microhabitat, outside of the project area and within 100 feet of its original location, prior to the start of construction.
- Turbidity curtains will be utilized during work in or adjacent to the canals/channels.
- In order to minimize impacts to aquatic species, culvert replacement activities will take place outside of the prime biological and recruitment activity period as identified by the North Carolina Division of Marine Fisheries (April 1st through September 30th).

OTHER ALTERNATIVES ANALYZED IN THE EA

Additional alternatives were considered in order to meet the purpose and need, as described in the EA in Chapter 1: Purpose and Need. These alternatives include: Alternative A – No Action Alternative, Alternative B – Road Improvements, Alternative D – Multi-use Trail Separate from NC 12 – Both Sides and Alternative E – Multi-Use Trail Separate from NC 12 – One Side. A detailed discussion of these alternatives can be found in the EA in Chapter 2.

Under Alternative A, no substantial improvements other than routine maintenance operations would be performed. Routine road maintenance operations include pavement repairs such as crack sealing and pothole patching. The culverts would be maintained, but not replaced. There would be no change in the width of the paved shoulder. Additional gravel may be placed at the pull-offs to repair the rutting and vegetation loss caused by motorists driving beyond the paved areas of the pull-off. Emergency repairs and replacements of the road surface or culverts may be necessary. Implementation of Alternative A would not maintain NC 12 as safe public access, reduce the potential conflicts between vehicles, pedestrians, and bicyclists using NC 12, or improve visitor access along Bodie Island. Therefore, Alternative A was not identified as the Preferred Alternative (see EA Chapter 2, Preferred Alternative).

Under Alternative B, improvements to NC 12 would be performed. The deteriorated road pavement would be resurfaced, but the road shoulders would not be widened. Five parking areas in the project area would also be resurfaced. The Whalebone Junction Information Station parking area would be repaved within the existing pavement limits, and a small gravel and grass section would also be paved. Four existing paved pull-offs would be repaved to match their existing dimensions. Excess gravel would be removed at three of the pull-offs. Wooden bollards and signs would be replaced. Four deteriorated culverts located at three locations would also be replaced. Traffic control, staging, and mitigation measures would be similar to Alternative C; however, the duration would be shorter, and mitigation measures would not include removal of pavement or the construction of permanent BMPs. Alternative B would not reduce potential conflicts between vehicles, pedestrians, and bicyclists using NC 12 because the shoulders would remain at the existing two-foot width. Alternative B would also only improve visitor access along Bodie Island for motorized vehicles. Visitor access for pedestrians and bicyclists would not be improved under Alternative B. Therefore, Alternative B was not identified as the Preferred Alternative (see EA Chapter 2, Preferred Alternative).

ALTERNATIVES DISMISSED

The NPS and FHWA considered and dismissed from further analysis several alternatives before development of the range of reasonable alternatives for full impact analysis. Brief descriptions of these preliminary alternatives and reasons for their dismissal, are outlined below. Additional detail is provided in the EA, Chapter 2: Alternatives.

Under Alternative D, a six-foot wide multiple-use paved trail would be constructed parallel to NC 12 on each side of the road, at a distance of five feet from the edge of the existing road. The construction of a paved trail five feet from the existing road would increase the footprint of the transportation corridor and would require the placement of fill material. Wetlands are located along most of NC 12 at the edge of the vegetated clear zone. Alternative D would permanently fill approximately two acres of wetlands. This would result in an unacceptable amount of

wetland impacts. Therefore, Alternative D was dismissed from further consideration.

Under Alternative E, a ten-foot wide multiple use trail would be constructed parallel to NC 12 on one side of the road. The trail would be located five feet from the edge of the existing road, and would also increase the footprint of the transportation corridor. Alternative E would permanently fill approximately three acres of wetlands. This Alternative would also be difficult to tie into the existing widened paved shoulders north and south of the project area. Alternative E would result in an unacceptable amount of wetland impacts. Therefore, Alternative E was dismissed from further consideration.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The Environmentally Preferred Alternative is defined by CEQ as “the alternative that will promote the national environmental policy as expressed in NEPA [Section 101 (b)].” Section 101 (b) goes on to define the Environmentally Preferred Alternative through the application of six criteria, listed below. Generally, these criteria define the Environmentally Preferred Alternative as the alternative that causes the least amount of damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources, while attaining the widest range of beneficial uses of the environment. Each criterion is presented below, followed by a discussion of how well the alternatives meet each one.

1. *Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.*

All of the Alternatives would continue to provide access for visitors to the Seashore. Under Alternatives A and B, there would be no treatment of stormwater; however, no new additional impervious surface would be added to the area. Alternative C will include the construction of drainage swales to treat stormwater runoff from existing NC 12 and the additional impervious surface from the shoulder expansion where feasible.

2. *Ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.*

Alternative A would allow the continued deterioration of NC 12. Although regularly scheduled maintenance activities would continue, the deteriorated rough road would not be safe or pleasing to visitors. Alternative B would improve NC 12 and make for safer vehicular access, and would provide a smooth asphalt surface that would be pleasing to users of the road. Alternative C will improve NC 12 for vehicular, bicycle, and pedestrian access.

3. *Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.*

Under Alternatives A and B, stormwater would not be treated, and risks to health and safety would increase as the pavement and culverts continued to degrade. Under Alternative B, the improvements to NC 12 would enhance the safety of motorists. Under Alternative C, the improved pavement conditions and widened shoulders will decrease the potential for conflicts between motorists and cyclists. The implementation of Alternative A, Alternative

B, and Alternative C are analyzed in this EA to minimize undesirable or unintended consequences.

4. *Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.*

Important historic and cultural aspects of the project area would continue to be preserved under Alternatives A, B, and C. Alternative A would continue to preserve important natural aspects of the project area. Alternative B would impact natural resources through the placement of riprap at the culverts. Alternative C will impact natural resources through the placement of riprap and widening of the paved shoulders.

5. *Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.*

Under Alternative A, NC 12 would continue to deteriorate. The road would still be available for use by visitors; however, that experience may be diminished by the rough quality of the road surface. Alternative B would improve NC 12 primarily for vehicular use. Under Alternative C, alternative forms of transportation, such as bicycling, will be supported through the construction of widened shoulders. The pavement improvements allow for a smoother safer ride of both vehicles and bicycles. Impacts to the Seashore's resources would be minimized, because the improvements would be made to and immediately adjacent to an existing facility.

6. *Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.*

Alternative A would not contribute to this criterion. Under Alternative B, the existing asphalt pavement may be recycled and used as all or part of the new asphalt pavement. Alternative C will likely require new asphalt pavement.

Alternative A best meets criteria one and four. Alternative B best meets criteria three, four, and six. Alternative C best meets criteria two, four, and five defining the Environmentally Preferred Alternative. Alternative C is the Environmentally Preferred Alternative because it supports multiple modes of access and enjoyment despite its greater impact on the natural environment as compared to Alternatives A and B.

WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR § 1508.27, significance is determined by examining the following 10 criteria. A discussion on why the Selected Alternative (Alternative C) will not have a significant effect on the human environment follows each criterion.

1. *Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.*

Implementation of the Selected Alternative will result in short-term, adverse impacts to: floodplains, wetlands, surface water and groundwater quality, vegetation, wildlife and wildlife habitat, visitor use and experience, Seashore operations, traffic operations, health and safety, and gateway communities. The Selected Alternative will have no short-term impact to stormwater management. After construction is completed, the Selected Alternative will have long-term, adverse impacts to: floodplains, wetlands, surface water and groundwater quality, stormwater management, vegetation, wildlife and wildlife habitat. The Selected Alternative will have long-term, beneficial impacts to: visitor use and experience, Seashore operations, traffic operations, health and safety, and gateway communities. The beneficial impacts of the Selected Alternative will be more noticeable than the beneficial impacts of Alternative B to Seashore visitors, because the widened paved shoulders will accommodate existing and future pedestrian and bicycle use through the Seashore. The cumulative impacts will range from negligible to long-term, moderate, and adverse. Analysis of potential impacts of the Selected Alternative did not identify any major adverse impacts to these resources. Therefore, implementation of the Selected Alternative is not likely to result in impairment of any Seashore resource or value.

2. *The degree to which the action affects public health or safety.*

The Selected Alternative will have short-term, minor, and beneficial impacts to public health and safety, and long-term, moderate, and beneficial impacts to health and safety. During construction, lane closures will be implemented. The change in traffic patterns will be confusing to motorists and the presence of construction equipment and workers will present potential conflicts with motorists. In the short-term, impacts will be minor and adverse. NC 12 will be resurfaced, creating a smooth driving surface. The replacement of the culverts will reduce the potential for collapse of the culvert and potential conflicts with motorists. The replacement and/or placement of bollards and signs will also improve the safety of visitors and Seashore staff. The paved shoulders will be widened, providing five-foot wide paved shoulders for use by bicyclists and pedestrians. The five-foot wide shoulders will provide a wider buffer between bicyclists/pedestrians and vehicles, which may reduce to potential for conflicts and crashes.

3. *Unique characteristics of the geographic area such as proximity to historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

Historic or cultural resources: No historic or cultural resources will be impacted by the Selected Alternative.

Parklands: No other Federal, State, or local parklands occur in the vicinity of the project area.

Prime farmlands: No prime farmlands occur in the vicinity of the project area.

Wetlands: A wetland delineation identified wetlands that will be impacted by the culvert replacement and placement of riprap. Approximately 0.08 acres of wetlands will be impacted. Wetlands are abundant and extensive on Bodie Island. Erosion and sedimentation control will be placed to protect wetlands. Wetland impacts have been minimized to the maximum extent possible and mitigation measures will be implemented.

Wild and scenic rivers: No wild or scenic rivers occur in the vicinity of the project area.

Ecologically critical areas: The Selected Alternative will not impact the Seashore's designation as a Globally Important Bird Area, and will not impact the designation of any Registered Significant Natural Heritage Areas in the vicinity of the project area.

4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

The impacts of the Selected Alternative are not controversial.

5. *Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.*

Potential impacts from implementation of the Selected Alternative are not highly uncertain and do not involve unique or unknown risks.

6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

The Selected Alternative will not establish a precedent for future actions. NCDOT has constructed widened shoulders to the north and south of the project area.

7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.*

Impacts resulting from the Selected Alternative which are predicted to be greater than negligible in intensity were on: floodplains, surface water and groundwater quality, stormwater management, vegetation, wildlife and wildlife habitat, visitor use and experience, Seashore operations, traffic operations, health and safety, and gateway communities. As described in the EA, cumulative impacts were determined by combining the impacts of the alternatives with other past, present, and reasonably foreseeable future actions. Current and reasonably foreseeable future actions include:

Town of Nags Head Flood Control Projects: The Town of Nags Head has proposed flood control projects to concentrate stormwater within the existing conveyance system. The increased stormwater flows and potentially increasing pollutant loads in the conveyance systems include recommended extended detention wetlands to help provide water quality treatment prior to discharging to the Sound or Ocean (Town of Nags Head 2008).

Town of Nags Head Septic Health Initiative: The Town of Nags Head has implemented four programs as part of their Septic Health initiative. These programs include a Septic Tank Inspection and Pumping Program. The overall goal of the inspection and pumping is to have all septic systems in Nags Head inspected and pumped within four to five years. The Water Quality Monitoring Program was created to track the flow of possible septic system pollutants in groundwater and their influence, if any, on nearby surface water constituents. The results will be used to develop a Decentralized Wastewater Master Plan. The third part of the initiative is the Education Program and is the means in which The Town of Nags Head is teaching both young and old the proper use and maintenance of septic systems. The

fourth and final part of the initiative is the development of a Decentralized Wastewater Master Plan (Town of Nags Head 2006).

Replacement of Water Main: Replacement of the underground water line on the east side of NC 12 by the NPS may occur within the next five years from the NPS' Bodie Island Maintenance Facility to Oregon Inlet Fishing Center. Replacement of the water main would result in either the abandonment of the existing water main or the removal of the existing line coupled with installation of a new main. If the existing water main is to be abandoned, then the replacement main would potentially be installed on the west side of NC 12. The line would be replaced in the area between the edge of the southbound lane and the existing drainage ditch. Water line service along Lighthouse Bay Drive to the relocated U.S. Coast Guard Station Complex and the Bodie Island Lighthouse would also be replaced and the new line installed along Lighthouse Bay Drive.

Bonner Bridge Repair Work: The repairs to Bonner Bridge are estimated to be complete in November 2010. Repair work includes repairs to the bridge's subcaps, pile jackets, concrete, and fender system (NCDOT 2008a). Repair work often requires the closure of one lane of the Bridge, causing delays to motorists on NC 12.

Bonner Bridge Replacement: A new bridge will be built across the Oregon Inlet to replace the existing Bonner Bridge. The new replacement Oregon Inlet Bridge is estimated to be complete in 2014. A new structure would be constructed roughly parallel to the existing Bonner Bridge. The Bridge would have eight-foot (2.4-meter) wide shoulders that would be safer for bicycle and pedestrian traffic than Bonner Bridge's two-foot (0.6-meter) wide shoulders. In addition, a bicycle-safe bridge rail on the bridges also would provide increased safety for bicyclists (NCDOT 2008a).

Widening and Repaving Lighthouse Bay Drive: The NPS is considering widening and repaving Lighthouse Bay Drive within the next 10 to 15 years. Lighthouse Bay Drive provides the only road to the Bodie Island Lighthouse. The existing road was paved in the 1990s, and its current width is 18 feet for two-way traffic. Since then, there has been an increase in visitation to the Lighthouse. In April of 1999, a low speed, head-on collision resulted in a fatality. Therefore, widening of Lighthouse Bay Drive is necessary. Widening would result in a 34 foot-wide paved surface (comprised of two 12 foot-wide lanes, each with five foot-wide shoulders to accommodate bicycle traffic).

Future Growth of Nags Head: The population of Nags Head in 2005 totaled 3,125 residents. The State Data Center projects the 2025 Nags Head population to be 4,117 residents, for a growth rate of approximately 32 percent.

NC 12 Shoulder Widening: NCDOT plans to construct the remaining section of the widened paved shoulders on the north- and southbound NC 12 from the southern terminus of this project (mile 5.28) to one mile south of the Bonner Bridge. NCDOT plans to widen the existing narrow shoulders to a width of five feet (NCDOT 2008a).

The Selected Alternative, along with past, present, and reasonably foreseeable future actions, will have no significant cumulative effects on any resource analyzed in the EA.

8. *The degree to which the action may adversely affect items listed or eligible for listing in the National Register of Historic Places, or other significant scientific, cultural or historic resources.*

No items listed or eligible for listing in the National Register of Historic Places, or other significant scientific, cultural or historic resources are located in the project area; therefore, the Selected Alternative will have no effect. In an email dated April 24, 2009, the North Carolina State Historic Preservation Office concurred that no historic resources are likely to be affected by the project.

9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

In a letter dated July 7, 2009, the North Carolina Department of Environment and Natural Resources (NCDENR) indicated record of the State Significantly Rare sand heather (*Hudsonia tomentosa*) in the project area. A survey for this plant was conducted on July 21, 2009, by the Seashore's Natural Resource Manager, as recommended by NCDENR. The survey confirmed the presence of the sand heather within the project area. Any sand heather potentially impacted by the proposed action will be relocated by a NPS Management Biologist to a suitable microhabitat, outside of the project area and within 100 feet of its original location, prior to the start of construction. No suitable habitat for any federally-listed species is available in the study area, therefore it was determined that the proposed project will have no effect on any federally-listed species. In an email dated May 14, 2009, the U. S. Fish and Wildlife Service concurred with this finding. Through coordination with the National Marine Fisheries Service, it was determined that the proposed project will have no effect to any federally-listed marine or anadromous species.

10. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

Applicable Federal, State, and local laws and requirements were considered in the development of the improvements to NC 12. The Selected Alternative does not violate any Federal, State, or local environmental protection laws.

APPROPRIATE USE, UNACCEPTABLE IMPACTS, AND IMPAIRMENT

The Selected Alternative does not constitute an action that normally requires preparation of an Environmental Impact Statement (EIS). The Selected Alternative will not have a significant effect on the human environment. Adverse environmental impacts that could occur are minor and temporary in effect. There are no unmitigated adverse impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the NRHP, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risk, cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any Federal, State, or local environmental protection law.

Implementation of the Selected Alternative will not result in impairment of any park resource or value.

Based on the forgoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

PUBLIC INVOLVEMENT

The EA was made available for public review and comment during a 30-day period ending April 8, 2010. Notices were placed in the *Virginian-Pilot* and the *Coastland Times* on Tuesday, March 9, 2010. Correspondence received during the public comment period included letters and comments on the NPS Planning, Environment, and Public Comment website. Correspondence from four individuals, two State government agencies, and two advocacy groups/committees was received. The correspondence contained 20 comments. All correspondence received during the public comment period may be viewed at the Seashore's headquarters during regular business hours.

Some correspondence letters contained multiple comments. Each comment was identified as substantive or non-substantive, according to the criteria in the Council on Environmental Quality regulations. (40 CFR 1500). These criteria state that substantive comments raise an issue regarding law or regulation, agency procedure or performance, compliance with State objectives, validity of impact analyses, or other matters of practical or procedural importance. Non-substantive comments offer opinions or provide information not directly related to the issues or impact analysis. Non-substantive comments were acknowledged and considered, but did not require responses.

Eight of the 20 comments received were non-substantive. Of the eight non-substantive comments, six were in general support of improving NC 12 and widening the shoulders and one was not in support of the project. The remaining non-substantive comments included one comment that recommended similar improvements to NC 12 further south between the Bodie Island Lighthouse Road to beyond the Oregon Inlet Bridge. The widening of NC 12 south of the project area to beyond the Oregon Inlet Bridge by NCDOT (NCDOT 2008a) was considered in the cumulative impact scenario.

Twelve substantive comments were received. No suggestions for new alternatives were provided. Comments received were:

- One comment recommended the accommodation of bicyclists during construction, particularly during lane closures. No additional accommodation of bicyclists during construction will be made because bicyclists are able to use South Old Oregon Inlet Road as an alternate route during construction.
- Two comments recommended the installation of a traffic light at the intersection of NC 12 and South Old Oregon Inlet Road. Additional data collection including updated vehicle volume and turn movement counts, bicycle volume and turn movement counts, and crash data are required in order to determine if there is a need for a traffic signal at this location. Therefore, this recommendation cannot be implemented with the Selected Alternative.
- One comment recommended additional signage including NCDOT "Share the Road" signs, and signs at the pull-offs to warn motorists of cross traffic entering and exiting the

pull-offs. The placement of NCDOT "Share the Road" signs and signs at the pull-offs will not be included as part of the Selected Alternative. Bicyclists using NC 12 assume the risks to their health and safety as NC 12 is a high-speed, high-volume vehicular highway.

- One comment recommended center turn lanes at each of the pull-offs and at the intersections of NC 12 with South Old Oregon Inlet Road and the Bodie Island Lighthouse Road. The need for NC 12 improvement is based on the evaluation of the highway as an aging transportation facility. The on-going degradation of the pavement, pull-offs, and culverts present safety hazards to motorists, bicyclists, and pedestrians using this facility. Degradation of this transportation facility is not remedied by construction of center turn lanes. NC traffic laws consider bicycles, mopeds, and motorized bikes as legal road vehicles and subject to the same laws. Bicyclists may choose to make a left turn from the appropriate lane, like other vehicles, with hand signals, or may dismount and walk the bicycle across the intersection, as a pedestrian.
- One comment requested that relocation of sand heather be confined to a location within the original population. Any sand heather (*Hudsonia tomentosa*) potentially impacted by the proposed action will be relocated by a NPS Management Biologist to a suitable microhabitat, outside of the project area and within 100 feet of its original location, prior to the start of construction.
- One comment requested the utilization of turbidity curtains to keep turbidity levels to a minimum. Turbidity curtains will be utilized during work in or adjacent to the canals.
- One comment requested that the proposed culvert replacement take place outside of the prime biological and recruitment activity period of April 1st through September 30th. The construction of the Selected Alternative will be timed so that culvert replacement will take place outside of the April 1st through September 30th time period.
- One comment requested clarity regarding the difference between the culvert replacement proposed under Alternative B versus the culvert replacement under Alternative C. The length and size of the culverts would be the same for both Alternative B and Alternative C because the sizing of the culvert is not related to the width of the paved road. The appropriate length of the culverts is determined by the entire roadway prism, which includes the vegetated clear zone. Only one culvert is proposed to be lengthened. The diameter of the culverts was determined to match the existing conveyance of water.
- One comment indicated that the proposed project may impact water supply mains. All utilities will be clearly identified prior to construction to avoid any impacts. Should relocation of any utilities be required, the appropriate review and approval process will be followed.
- Two comments providing the correction of factual errors were also received.
- Comment analysis also helped identify any EA text where clarification was helpful or factual errors needed correction. If editorial clarifications or factual changes were

required, the text changes are reflected in the Errata (attachment to this FONSI) for the EA.

CONCLUSION

As described above, the Selected Alternative does not constitute an action meeting the criteria that normally require preparation of an EIS. The Selected Alternative will not have a significant effect on the human environment. Environmental impacts that could occur are limited in context and intensity, with generally adverse impacts that are localized, short-to long-term, and range from negligible to moderate. There are no unmitigated adverse effects on public health and safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any Federal, State, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended: Thayne Brink
for Michael B. Murray
Superintendent
Cape Hatteras National Seashore

4/20/2010
Date

Recommended: Laurin R. Lineman
Laurin R. Lineman
Acting Planning and Programming Engineer
Eastern Federal Lands Highway Division

4/23/2010
Date

Approved: Karen A. Schmidt
Karen A. Schmidt
Director of Program Administration
Eastern Federal Lands Highway Division

4/26/2010
Date

Approved: David Vela
David Vela
Regional Director
National Park Service, Southeast Region

5/13/10
Date

NC 12 Improvements Environmental Assessment Errata and Responses to Comments

The following changes have been made to the NC 12 Improvements Environmental Assessment for Cape Hatteras National Seashore (March 2010) to correct minor statements of fact, update information, and disclose minor adjustments to the preferred alternative and impact analysis. Additions to the text are identified by underlines and deletions are marked by ~~strikeout~~ unless otherwise noted.

ERRATA

Chapter 1: Purpose and Need, Issues and Impact Topics, Impact Topics Dismissed From Further Consideration, Historic Structures, Districts, and Landmarks (Page 13)

A historic structure is defined by the NPS as “a constructed work, usually immovable by nature or design, consciously created to serve some human act” (DO #28, 113). For a structure, building to be listed on or eligible for listing on the National Register of Historic Places (NRHP), it must possess historic integrity of those features necessary to convey its significance, particularly with respect to location, setting, design, feeling, association, workmanship, and materials. A historic district is located within the project area. The Bodie Island Baseline, U.S. Coast Survey, 1848 are the only remaining completed set of coastal survey baseline markers left in the United States. This 6.75-mile historic district has been nominated ~~as a National Historic Landmark to the NRHP~~, and is under review by the North Carolina State Historic Preservation Office (NC-SHPO). The proposed action would have no impact to the proposed ~~National Historic Landmark~~ eligibility for listing on the NRHP. The proposed action was reviewed by the Seashore’s ~~National Historic Preservation Act Specialist~~ Cultural Resources Manager. It was determined that the project would have no adverse effects to cultural resources. The NC-SHPO reviewed the proposed action and determined that there are no historic properties that are likely to be affected by the project as proposed including the widening of paved shoulders, replacement of culverts, and overlay. Therefore, historic structures, districts, and landmarks was dismissed as an impact topic for further analysis in this EA.

Chapter 3: Affected Environment and Environmental Consequences, Cumulative Impacts, Present and Future Actions (Page 36)

NC 12 Shoulder Widening

NCDOT plans to construct the remaining section of the widened paved shoulders on the north- and southbound NC 12 from the southern terminus of this project (mile 5.28) to one mile south of the Bonner Bridge (NCDOT 2008a). NCDOT plans to widen the existing narrow road shoulders to a width of five feet.

Chapter 3: Affected Environment and Environmental Consequences, Stormwater Management, Environmental Consequences, Alternative C – Preferred Alternative (Page 53)

Approximately ~~two acres~~ **four acres (174,240 square feet)** of impervious surface would be added to the existing 17 acres (740,520 square feet) of impervious surface in the study area from construction of the widened shoulders and paving of a small area within the Whalebone Junction Information Station parking area.

Chapter 4: Public Involvement and Coordination, Agency Coordination and Permits, Agency Coordination (Page 81)

The proposed action was reviewed by the Seashore's ~~National Historic Preservation Act Specialist Cultural Resources Manager~~. It was determined that the project would have no adverse effects to cultural resources. The NC State Historic Preservation Officer reviewed the proposed action and determined that there are no historic properties that are likely to be affected by the project as proposed including the widening of paved shoulders, replacement of culverts, and overlay.

Chapter 4: Public Involvement and Coordination, Agency Coordination and Permits, Permits (Page 82)

CAMA Major Permit

~~The CAMA Permits are issued by the Division of Coastal Management under the authority of North Carolina General Statutes §113A-118, §113-229 and 15A NCAC 07J .0201. The proposed project would involve development in an Area of Environmental Concern, and requires other State or Federal permits; therefore, it would require a Major Permit. A site visit is often required to discuss the project and obtain a permit application. Applications for major permits are reviewed by 10 State and four Federal agencies before a decision is made. This permit involves a fee and a 75 day review period.~~