

United States Department of the Interior

FISH AND WILDLIFE SERVICE

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November 30, 2006

Mr. Jerry Eubanks Gulf Islands National Seashore 1801 Gulf Breeze Parkway Gulf Breeze, Florida 32561

Re: FWS No. 4-P-07-046

Date Started: November 2, 2006

Agency: Gulf Islands National Seashore Project Title: Fort Pickens Road and J. Earle Bowden Way Reconstruction (CR 399)

Ecosystem: NE Gulf

County: Escambia and Santa Rosa Counties, Florida

Dear Mr. Eubanks:

Thank you for your letter dated November 2, 2006, requesting concurrence with your determination of effect on the reconstruction and repair of Fort Pickens Road, J. Earle Bowden Way (Bowden Way), and associated visitor parking facilities within the Fort Pickens Unit and Santa Rosa Unit of Gulf Islands National Seashore (GUIS). This response is provided in accordance with provisions of Section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Consultation History

A consultation was done on rebuilding these facilities following Hurricane Ivan in 2004 (FWS # 4-P-05-054). The facilities were extensively damaged again by Tropical Storm Arlene and Hurricane Dennis in 2005 and are currently unusable. You re-initiated consultation by a letter dated April 11, 2006, with modifications to the project that included the addition of protective sand berms. The U.S. Fish and Wildlife Service (Service) provided recommendations to minimize impacts to protected species on June 27, 2006 (FWS # 4-P-06-163). Enclosed with your latest correspondence, you provided two environmental assessments (EAs) as the equivalent of your biological assessments. The EAs examined multiple options and identified preferred alternatives – Alternative D for Fort Pickens Road and Alternative C for Bowden Way. The scope of work has changed substantially since our previous comments.

Preferred Alternatives

Repair work on Fort Pickens Road would extend from the Ranger Station at Langdon Beach to the Fort Pickens entrance gate for a distance of approximately 4 miles. Bowden Way requires repairs between Pensacola Beach and Navarre Beach for a distance of 7.5 miles. Portions of both roads will be realigned. West of the Three Ponds area, Fort Pickens Road will be moved further to the north for 4,000 feet. Two sections of Bowden Way will have additional realignment to the north for a total length of 1.57 miles. The purpose of the realignments is to maximize the distance from the existing shoreline to reduce damage from future storms. The design for a typical section will include 12-foot paved travel lanes, a 5-foot paved shoulder for bike lanes, and an additional 2-foot stabilized shoulder. The road elevation will be 4 feet above sea level. On Fort Pickens Road, the roadbed will need to be built up with sand to reach the desired elevation for much of the length of the project. Portions of the Bowden Way roadbed will also need to be elevated.

The preferred alternatives add extensive protective elements to reduce scour from high frequency storms. Added features will include a combination of sand berm, sheet pile, geoweb, articulated concrete block, and widened outside shoulders ("sacrificial" asphalt aprons). Fort Pickens Road will have 2.22 miles of hardened armoring and a protective sand berm for 3 miles. Bowden Way will have a mix of protective options including hardened structures for 2.42 miles. The width of the new road corridor, including sand berms and armoring, will be 250 feet. The preferred alternative is not expected to protect the road during severe storm events such as Hurricanes Ivan and Dennis that have recently destroyed the road.

Sand Berm

Along Fort Pickens Road, the 3-mile berm on the south side of the road will have an elevation of 8 feet above sea level, a base width of 142 feet, and will be located 18 feet from and parallel to the road. In cross section, acute angles will be 3°. The 2.2 miles of berm on the north side of the road will have an elevation of 10 feet above sea level, a base width of 40 feet, and will be constructed 10 feet from the road's edge. The berm along Bowden Way will have an elevation of 4 feet above existing grade (approximately 8 feet above sea level), a base width of 142 feet, and will be constructed parallel to and north of the road. The proposed source for material is the existing dredge spoil material stored adjacent to the Fort Pickens campground and off-island sources, if necessary.

Hardened Structures

Sheet pile will be used in areas of extreme overwash and scour. It will be driven 20 feet into the ground and capped with a concrete bulkhead, buried and supported by a buried geoweb. Approximately 2 miles of Fort Pickens Road will have sheet pile on both sides of the road. No sheet pile is proposed along Bowden Way.

Geoweb (a reinforced geotechnical material) will be installed as a celled mattress filled with 4-inch rock. It will be 18 inches thick and slope away from the road to a depth of 2 feet below sea level. The mattress will be buried. Geoweb will be used on both sides of Fort Pickens Road for 2.2 miles and on the north side of Bowden Way for 2.42 miles.

Articulated concrete block (concrete block interlocked with wire cable) would be installed on the north side of the road below the surface to protect against overtopping. It may be used along 2.2 miles of Fort Pickens Road and 2.42 miles of Bowden Way.

Asphalt apron is a "sacrificial" widened shoulder that moves potential weir flow damage to a point away from the travel lanes. The width of the apron is not specified. It would be buried under the sand. Asphalt apron may be used along 2.2 miles of Fort Pickens Road and 2.42 miles of Bowden Way.

Conservation Measures

The following conservation measures are proposed by GUIS to minimize potential environmental impacts.

- 1. The roads will be reconstructed along routes outside of primary dunes and sea turtle habitat, and will avoid new dunes and potential vegetation areas.
- 2. Best Management Practices for road construction will be used.
- 3. Only enough sand will be used to accommodate the road elevation of 4 feet above sea level in breach and overwash areas. These areas will be allowed to accrete and fill by natural processes.
- 4. Sand will be from compatible sources. Sand directly adjacent to the 250-foot road prism will not be taken.
- 5. Armoring will be limited to strategic locations.
- 6. Along Bowden Way, the road footprint will be narrowed and structures such as guardrails and a barrier wall will be used as needed to avoid cutting a growing dune.
- 7. Sand fencing will be used judiciously to facilitate dune recovery.
- 8. Native vegetation will be planted along sand berms and other areas. Vegetation on berms will discourage nesting by shorebirds close to the road.
- 9. The road contractor will remove large asphalt remnants (brick-size and larger) from non-vegetated areas along the road corridor and on road sections now in the surf. GUIS park staff will filter non-vegetated sand to remove smaller asphalt pieces (brick-size and smaller).
- 10. Contractor employees will be educated on the environmental sensitivity of the area by GUIS park staff. Work activities will be monitored by park staff.
- 11. Movement corridors for construction vehicles will be marked on the ground.
- 12. No work will occur during nighttime hours.
- 13. Work outside the 250-foot road prism will be completed before shorebird nesting season in early April.
- 14. Berm angles will be kept under 10°, the natural angle of upwind sand accumulation.
- 15. Consideration will be given to notching the berms, where appropriate, to allow overwash.
- 16. Speed limits will be controlled during nesting season to protect wildlife near the road.

Threatened and Endangered Species

The Service is unable to concur with your determination that the preferred alternatives – the reconstruction of Fort Pickens Road and Bowden Way with realignment and a mix of protective elements – is not likely to adversely affect federally protected species and their habitat. The

proposed extensive armoring may prevent or limit the occurrence of overwash events. Overwash areas are used by migrating and wintering piping plovers for feeding and roosting. Periodic overwash events are necessary to sustain productive foraging habitat for the piping plover and to create new forage areas. The need to allow intermittent overwash events was identified in our June 23, 2006, letter.

The preferred alternatives result in a net increase in the footprint of hardened structures at GUIS. The placement of hardened underground structures may result in increased seaward beach scour. Both preferred alternatives include buried structures in sea turtle nesting habitat. The placement and location of the seaward berms will reduce the amount of available sea turtle nesting habitat. The EAs indicate beach scouring and the berm south of the roadway could have an adverse impact on sea turtle habitat and nesting activity. The EAs also conclude that with respect to species that are threatened, endangered, or of special concern, cumulative impacts from the preferred alternatives would be moderate, long term and adverse.

By eliminating or substantially reducing overwash events, using hardened structures that promote beach scour, and placing the berm and hardened structures in sea turtle nesting habitat, formal consultation with the Service will be necessary to determine whether your preferred alternatives are likely to jeopardize the continued existence of wintering and migrating piping plover and nesting sea turtles. GUIS will need to submit a request to the Service to initiate formal consultation. In addition, the following information is needed for the Service to complete a biological opinion.

Sea Turtles:

- 1. Sea turtle data for each unit (Santa Rosa and Fort Pickens) including:
 - a. Nest numbers per species and year.
 - b. False crawls per species and year.
 - c. Location of nests per year (preferably GPS data).
 - d. Average incubation per species per unit per year.
 - e. Nest hatch/emergence success per species per year.
 - f. Stranding data per species per year and location.
 - g. Lighting disorientations and other perturbations.
 - h. Description of nesting survey protocol and personnel.
- 2. Detailed maps to ascertain the location of the berms and armoring in relation to sea turtle nesting.
- 3. The seaward slope of the berm at all locations.
- 4. Berm material analysis (grain size and distribution).
- 5. Berm vegetation planting plan.
- 6. Berm material and other work methods (material transportation and distribution, beach access, equipment storage and staging areas).
- 7. Work schedule time of year, time of day, and length to complete.
- 8. Conservation measures to offset impacts to nesting sea turtles.

Piping Plover:

- 1. Map showing all piping plover use areas (specify where surveys have occurred). We encourage surveys of the entire area from now until the biological opinion is completed. Survey information will assist in assessing impacts.
- 2. Area of washover locations throughout the action area that are inundated on a regular basis.
- 3. Area of washover locations identified in #2 above that will be directly filled by the proposed road work.
- 4. An estimate of the number of piping plovers using the washover areas discussed above.
- 5. Conservation measures to offset impacts to the piping plover.

We also recommend you continue to consider other less environmentally damaging alternatives as identified in the EAs that greatly reduce impacts to federally protected species. Barrier islands such as Santa Rosa Island are a result of dynamic coastal processes and the recovery of piping plover, sea turtles, and beach mice are dependent upon this ever-changing environment. The preferred alternatives do not adequately avoid and minimize potential impacts to listed species and those impacts are not outweighed by the roadway surviving frequent storm events. While the roadway itself may survive, the damage to adjacent beach and dune habitats will be exacerbated from the roadway hardening.

As a reminder, Section 7 of the Act requires that until consultation is completed, no irreversible or irretrievable commitment of resources can be made that would limit future options. This practice ensures that agency actions do not preclude the formulation or implementation of reasonable and prudent alternatives that avoid jeopardizing the continued existence of endangered or threatened species or destroying or modifying their critical habitats.

We appreciate the opportunity to provide comments. We are aware that your funding is contingent on meeting a very short time frame and will work with you as expeditiously as feasible to complete formal consultation. Please contact Ms. Mary Mittiga of this office (ext. 236) if you have any questions or comments.

Sincerely yours,

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Deputy Field Supervisor

cc:

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