



United States Department of the Interior

FISH AND WILDLIFE SERVICE
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April 19, 2010

Michael B. Murray
 Superintendent, Cape Hatteras National Seashore
 National Park Service
 1401 National Park Drive
 Manteo, North Carolina 27954

Subject: Amended Biological Opinion for Cape Hatteras National Seashore's Interim Protected Species Management Strategy

Dear Superintendent Murray:

On January 7, 2010, the U.S. Fish and Wildlife Service's (USFWS) received your January 6, 2010, letter requesting reinitiation of formal section 7 consultation in accordance with the Endangered Species Act of 1973 (Act), as amended (16 United States Code [U.S.C.] 1531 *et seq.*). The USFWS received the 2009 Annual Reports of the Cape Hatteras National Seashore (Seashore) on January 29, 2010. These reports describe activities implemented in conjunction with the Seashore's Interim Protected Species Management Strategy (Strategy) and were submitted in accordance with our Biological Opinion (dated August 14, 2006) and subsequent amendments of April 24, 2007, March 28, 2008, and March 13, 2009. Our biological opinion (BO) assessed the effects of implementation of the Seashore's Strategy on the piping plover (*Charadrius melodus*) of the Atlantic Coast, Great Lakes and Great Plains populations; seabeach amaranth (*Amaranthus pumilus*); and loggerhead (*Caretta caretta*), green (*Chelonia mydas*), and leatherback (*Dermochelys coriacea*) sea turtles.

You requested reinitiation of section 7 consultation based on the Seashore's inability to meet performance measures implemented in conjunction with the Strategy, and as identified in our amended BOs. Specifically, during 2009, the Seashore identified nine (9) breeding pairs of piping plovers through field observations. These nine breeding pairs produced nine (9) known nests of which six (6) nests successfully produced chicks. Overall, the nine (9) breeding pairs fledged six (6) chicks for a fledge rate of 0.67. This level of productivity (i.e., a fledge rate of 0.67 fledged chicks per breeding pair) is below the target level of one (1) fledged chick per breeding pair per year established in the revised Performance Measures of the Second Amendment (March 28, 2008). All other Performance Measures specified in the Second Amendment were achieved during 2009.

The USFWS previously acknowledged that the Seashore's performance target for piping plover productivity and our level of incidental take are below the minimum productivity level required to maintain a stationary population. Based on our current knowledge of piping plover population biology, as identified in the revised recovery plan for the species (U. S. Fish and Wildlife Service

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1996), maintaining a stationary population requires a fledge rate of 1.24 fledged chicks per breeding pair and recovery of the Atlantic Coast population requires a fledge rate of 1.5 fledged chicks per breeding pair.

The USFWS has stated that productivity rates needed to contribute to recovery of the piping plover at the Seashore (and the rest of North Carolina) may be different from the rates identified in our recovery plan. If productivity necessary to sustain or increase populations varies with latitude, then modified productivity criteria that are specific to recovery units may be appropriate (Hecht and Melvin 2009). The breeding population in the Southern Recovery Unit (Delaware, Maryland, Virginia, and North Carolina) may be able to increase to recovery and then sustain itself with an annual productivity of less than 1.5 chicks fledged per pair (Hecht and Melvin 2009). However, demographic modeling is needed to explore effects of variation in productivity, survival rates, and carrying capacity of habitat on population viability within individual recovery units and the Atlantic Coast population as a whole (U. S. Fish and Wildlife Service 2009).

At this time, we do not have any new evidence to alter the performance measure for piping plover productivity, nor can we offer additional management strategies beyond those already provided to improve productivity. We are encouraged that current management practices appear to be contributing to an increase in the number of breeding pairs at the Seashore from the low numbers in the early years of the decade. At this time, we see no need for you to alter management practices. We remain convinced that adaptive management offers the best opportunity to explore the long-term productivity objective at the Seashore with explicit and testable assumptions. As such, we have previously recommended that the Seashore, using adaptive management, evaluate the stated performance target of one (1) fledged chick per breeding pair, as well as the productivity rates identified in the recovery plan, to determine if these rates provide for a growing population or are attainable at the Seashore over the long term. Therefore, for the purposes of this reinitiation and this consultation, the USFWS is not changing the current performance measure for productivity of the piping plover.

The BO of August 14, 2006, stated that incidental take of piping plovers for the proposed action is anticipated during each nesting season (i.e., April 1 to August 31 of each year) until a long-term, off road vehicle (ORV) management plan is developed. Incidental take was authorized by the BO until the end of calendar year 2009 or the development of the ORV Management Plan, whichever came first. Therefore, the incidental take authorized by the BO does not apply to the 2010 nesting season. The Seashore released the Draft Environmental Impact Statement for the ORV Management Plan in February 2010. Since the ORV Management Plan development appears to be on schedule, the incidental take of piping plovers is extended until December 31, 2010, or the implementation of the ORV plan, whichever comes first.

For the third amendment of the BO (March 13, 2009), the USFWS reviewed the Superintendent's Order #18 on Trapping Mammalian Predators of Protected Species and noted that this effort would assist the Seashore in working toward the productivity-based performance target (mentioned above), as well as other performance targets associated with piping plovers and sea turtle nesting at the Seashore. The 2009 monitoring report on piping plovers states that

mammalian predator trapping was conducted from January to December 17, 2009 and 464 animals were captured. While the removal of predators such as the red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), and feral cat benefits piping plovers, current data do not indicate whether the program is reducing the predator populations. The trapping program should develop a metric to indicate the effectiveness of the program. Data on catch per unit effort (CPUE) for each species over several years would indicate whether the abundance of a predator species is declining, increasing, or remaining stable. Future reports of the trapping program should provide additional data and discuss the effectiveness of the current mammalian predator removal program. Also regarding predator control, we have reviewed your plan to install electric fencing around a colonial waterbird nesting site and support this effort. Please keep us informed regarding this project's progress and results.

Lastly, we have reviewed your 2010 pre-nesting closure recommendations and maps. The recommended closures appear to capture important nesting, foraging and roosting habitats that are necessary for the birds to establish nests. As previously stated, we believe providing sufficiently undisturbed areas for birds to establish nests improve their chances for nesting and rearing young. We have no additional comments on the pre-nesting closures.

If you have any questions, please contact me at (919) 856-4520 extension 11, or via email at Pete_Benjamin@fws.gov.

Sincerely,

Pete Benjamin
Field Supervisor

Literature cited

- Hecht, A. and S. M. Melvin. 2009. Population trends of Atlantic Coast piping plovers. *Waterbirds*. 32:64-72
- U. S. Fish and Wildlife Service. 1996. Piping Plover (*Charadrius melodus*), Atlantic Coast Population, Revised Recovery Plan. Hadley, Massachusetts. 258 pp.
- _____. 2009. Piping Plover (*Charadrius melodus*), 5-Year Review: Summary and Evaluation. USFWS, Northeast Region (Hadley MA) and Midwest Region (East Lansing MI). 214 pp.