



---

☒ North Carolina Wildlife Resources Commission ☒

---

Gordon S. Myers, Executive Director

April 15, 2015

Mr. David Hallac  
Superintendent, Cape Hatteras National Seashore  
1401 National Park Drive  
Manteo, NC 27954

Dear Dave:

I am writing to provide information to the National Park Service (NPS) to help meet the legal mandate given in Section 3057 of HR 3979. This letter provides our current thoughts on appropriate buffers for listed species conservation. My staff continues to review relevant scientific publications and data and may suggest adjustments to these recommended buffer sizes in the future. We are also prepared to provide comments later on nighttime driving, the availability of seasonal vehicle routes, and the locations of vehicle-free areas.

North Carolina lists several species that nest on Cape Hatteras National Seashore (see appendix). The state's endangered species law is fundamentally different from the federal law in defining take and authorizing the listing of Special Concern Species. For example, Special Concern Species such as the American Oystercatcher require monitoring but may be incidentally taken under provisions of state law.

Peer-reviewed scientific data show human disturbance can cause abandonment of nesting territory, nest failure, and mortality of young. Although state law does not include disturbance in the definition of take, it is our goal to conserve state-listed species by increasing their survival and reproduction. Therefore, the Wildlife Resources Commission (WRC) recommends buffer protections for state listed species that nest on Cape Hatteras National Seashore. Additionally, there is a need to modify buffer areas on occasion to maintain public access while reducing disturbance to nesting birds and sea turtles. Use of an iterative decision model to modify buffer areas can help balance wildlife conservation and public access needs. One generalized approach to such an iterative decision model is provided as follows:

Step <sup>a</sup>	Condition	Action	Result
1	Nesting detection	Optimum buffer applied	Public access provided by existing route
2	Existing route blocked by buffer	Optimum buffer applied	Public access provided by alternate route
3	Alternate route not available	Modified buffer applied	Public access provided by existing route
4	Existing route blocked by modified buffer	Nest relocated per FWS policy <sup>b</sup>	Public ccess provided by existing route
5	Nest not relocated	Access closed	Public access not provided

<sup>a</sup>See appendix for flowchart

<sup>b</sup>Sea turtle nests

The following table presents our recommendations for buffer distances for vehicular traffic given a robust monitoring effort that detects nests soon after eggs are laid, hatching events, and movement of young. Modified buffer distances should approach the optimum buffer while continuing to maintain public access.

Species	Modified Buffer <sup>a</sup>	Optimum Buffer <sup>b</sup>	Start Time	End Time
AMOY <sup>c</sup> (breeding behavior, nesting)	50-m	150-m	Behavior seen	Hatching or loss
AMOY (unfledged chicks)	150-m	200-m	Hatching	Fledging or loss
WIPL <sup>c</sup> (breeding behavior, nesting)	50-m	75-m	Behavior seen	Hatching or loss
WIPL (unfledged chicks)	150-m	200-m	Hatching	Fledging or loss
LETE <sup>c</sup> (breeding behavior, nesting)	50-m	100-m	Behavior seen	Hatching or loss
LETE (unfledged chicks)	50-m	200-m	Hatching	Fledging or loss
COTE, GBTE, BLSK <sup>c</sup> (breeding behavior, nesting)	50-m	200-m	Behavior seen	Hatching or loss
COTE, GBTE, BLSK (unfledged chicks)	50-m	200-m	Hatching	Fledging or loss
PIPL <sup>c</sup> (breeding behavior, nesting)	50-m	75-m	Behavior seen	Hatching or loss
PIPL (unfledged chicks)	200-m	1000-m	Hatching	Fledging or loss
Sea Turtles (incubation)	3-m	10-m	Nest found	Hatching emergence
Sea Turtles (post-emergence)	25 to 75-m (seaward)	25 to 75-m (seaward)	Emergence	Dispersal

<sup>a</sup>Buffer less than the modified buffer radius set at discretion of Superintendent

<sup>b</sup>Modification less than the optimum buffer radius would allow pass-through access only

<sup>c</sup>American Oystercatcher (AMOY), Wilson's Plover (WIPL), Least Tern (LETE), Common Tern (COTE), Gull-billed Tern (GBTE), Black Skimmer (BLSK), Piping Plover (PIPL)

In the application of appropriate buffer protections, the NPS should use adaptive management practices to refine its management strategies. Both the adaptive management process and successful application of the proposed decision model depend upon active efforts to monitor reproductive behavior, effect appropriate controls to reduce disturbance, and evaluate the effects of management on listed species and public access. If the decision is made to allow access with less than the modified buffer, NPS could provide guardians to monitor and protect listed bird chicks and sea turtle hatchlings. Given active monitoring and management by guardians, the NCWRC is not opposed to modifying nest and chick protection buffers or to relocating sea turtle nests (this includes nests between Ramp 43 and Cape Point and nests laid after August 18<sup>th</sup>) in accordance with Fish and Wildlife Service policy. Furthermore, NPS can always continue public access with the chicks of state-listed bird species present. Beach access closure should always be the last option and is at the sole discretion of the Superintendent.

I sincerely believe that we can meet our legal mandates by working together with all stakeholders. WRC can provide funds to support research or other adaptive management actions that conserve wildlife resources. I look forward to publication of your draft environmental assessment and the ensuing public meetings. Please contact me directly if you have any questions.

Sincerely,



Gordon Myers  
Executive Director  
NC Wildlife Resources Commission



## Appendix

NC's protected animal lists include American Oystercatcher (SC), Black Skimmer (SC), Common Tern (SC), Gull-billed Tern (T), Least Tern (SC), and Wilson's Plover (SC), none of which are listed under the ESA. All of these species regularly occur on Cape Hatteras National Seashore. Several relevant laws protecting wildlife resources are found in Chapter 113 of the NC General Statutes. Section 113-331 (8) defines special concern species (SC) as "any species of wild animal native or once-native to North Carolina which is determined by the Wildlife Resources Commission to require monitoring but which may be taken under regulations adopted under the provisions of this Article." Section 113-331 (9) defines threatened species (T) as "any native or once-native species of wildlife animal which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range". "Take" of wildlife resources under Section 113-130 (7) requires intent in "all operations during, immediately preparatory to, and immediately subsequent to an attempt, whether successful or not, to capture, kill, pursue, hunt or otherwise harm or reduce to possession any fisheries resources or wildlife resources." This definition of take also applies to other statutes in Chapter 113. Section 113-337 (a) (1) prohibits the take of wildlife resources on a protected wild animal list. Section 113-291.3 (a) prohibits the take of live wildlife and the nests and eggs of wild birds except as provided by law. Although NC law does not include disturbance in the definition of take, it is our goal to conserve these wildlife resources by increasing survival and reproduction. Peer-reviewed scientific data show that human disturbance can cause abandonment of nesting territory, nest failure, and mortality of young. Therefore, the NCWRC recommends buffer protections for state-listed species that nest on Cape Hatteras National Seashore. NCWRC also supports appropriate buffer protections for federally listed species as determined by the US Fish and Wildlife Service (FWS).

Following are examples of applications of NCWRC's recommended iterative decision model. A decision model flowchart is included.

When American Oystercatcher pre-nesting behavior is observed, the NPS would consider establishment of the optimum buffer of 150-m. If this action would prevent use of the existing public access route, the NPS would consider use of an alternate route. If no alternate route exists, the NPS would reduce the buffer size to the distance necessary to allow public passage with appropriate controls in place to reduce disturbance to territorial and nesting birds. Appropriate controls include the requirement that vehicular traffic pass slowly through the established buffer without stopping and pedestrian traffic remain below the high tide line. The Superintendent could review and approve an American Oystercatcher pre-nesting or nesting buffer of less than 50-m. When chicks leave a nest, the NPS would consider establishment of the optimum buffer of 300-m. If this action would prevent use of the existing public access route, the NPS would consider use of an alternate route. If no alternate route exists, the NPS would reduce the buffer size to the distance necessary to allow public passage with appropriate controls in place to reduce disturbance to pre-flight chicks. Appropriate controls include application of modified buffers based on continuous monitoring of chick locations, changes in chick foraging behavior in response to tides, or other factors. The Superintendent could review and approve an American Oystercatcher pre-flight buffer of less than 200-m.

A second example is for conservation of sea turtles. When a sea turtle nest is found, the NPS would consider establishment of the optimum buffer of 10-m. If this action would prevent use of the existing public access route, the NPS would consider use of an alternate route. If no alternate route exists, the NPS would reduce the buffer size to the distance necessary to allow public passage with appropriate controls in place to reduce disturbance to the nest. The nest buffer would never be less than 3-m. Nest relocations as permitted by FWS policy may resolve some resource protection-public access conflicts. When dispersal from a nest occurs, the NPS would take the actions necessary to facilitate safe passage from the nest to the ocean. If these actions prevent use of an existing public access route, the NPS would consider use of an alternate route. If no alternate route exists, the NPS would temporarily close the existing access and provide safe passage to hatchling turtles.

# Recommended Decision Model

NC Wildlife Resources Commission  
 April 15, 2015

