

TABLE 2: ACTION TO BE IMPLEMENTED — SPECIES MANAGEMENT

Activity	
Closures/ Buffers	<p><u>Pre-Nesting:</u> American oystercatcher: March 15 Activate closures if a territory is established or a nest located. Closures removed when areas have been abandoned for a two week period.</p> <p>Piping plover: April 1 In February or March of each year, NPS natural resource staff to conduct an annual assessment of piping plover breeding habitat to plan pre-nesting closures in recent breeding areas that are adapted to current habitat and physiographic conditions. Close recent breeding areas by posting symbolic fencing by April 1. Remove closures if no bird activity is seen by July 15 or when area has been abandoned for a 2-week period, whichever comes later.</p> <p>Colonial waterbirds: May 1 Activate closures if a territory is established or a nest located. Closures removed when areas have been abandoned for a two week period.</p> <p>All Species: Designate a 100-foot-wide ORV and pedestrian corridor. Outside of ORV corridor, prohibit pedestrian access to breeding areas beyond the symbolic fencing. Delineate the corridor with posts placed up to 100 feet above the high tide line. In areas of reduced corridor width (i.e., narrower than 100 feet), post a reduced speed limit of 10 mph.</p>
	<p><u>Courtship/Mating:</u> Piping plover: If courtship or copulations are observed outside of existing closures on two consecutive survey days, establish or expand buffer to ensure 150-foot buffer for the observed birds.</p> <p>If additional closures are created around courtship/mating areas, adjust the ORV corridor whenever possible to allow vehicle passage. Allow management to be responsive to individual bird behavior when determining adequacy of closure size.</p> <p>American oystercatcher and colonial waterbirds: If territorial or courting birds observed outside of existing closures, based on bird behavior and suitable habitat, expand buffers to accommodate the birds. Provide ORV/pedestrian corridor above the high tide line.</p>
	<p><u>Nesting:</u> Piping plover: Establish 150-foot buffer/closure around piping plover nests occurring outside existing closures. Expand closures, if necessary, using flexible increments dependent on observed bird behavior. When resource closures are created around nests, adjust the ORV corridor whenever possible to allow vehicle passage. Reduce the width of the ORV corridor if necessary. In areas in which the buffer zone would eliminate the ORV corridor, identify alternate ORV routes if available or provide a bypass (see "Short-term Bypass Route Criteria" on page 11 of this FONSI) if possible.</p> <p>American oystercatcher: Establish buffer/closure based on adult's reaction to human disturbance. Closures vary in size dependent on best professional judgment. (from alternative D) When resource closures are created around nests, adjust the ORV corridor whenever possible to allow ORV passage. Reduce width of ORV corridor if necessary. In areas in which the buffer zone would eliminate the ORV corridor, identify alternate ORV routes if available, or provide a bypass (see "Short-term Bypass Route Criteria" on page 11 of this</p>

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	<p>FONSI) if possible. Allow observations to be responsive to individuality in bird behavior when determining adequate size of closure zones around nests.</p> <p>Colonial waterbirds: Establish a buffer/closure of 150 feet to 300 feet around the nest or colony based on observed bird behavior, while maintaining ORV/pedestrian corridor. If the buffer and the corridor overlap each other, then staff will reduce corridor width if necessary. In areas in which the buffer zone would eliminate the ORV corridor, identify alternate ORV routes if available, or provide a bypass (see "Short-term Bypass Route Criteria" on page 11 of this FONSI) if possible. Allow observations to be responsive to individuality in bird behavior when determining adequate size of closure zones around nests.</p> <p>Reduce width of ORV/pedestrian corridors for American oystercatcher and colonial waterbirds will be approached as a research opportunity to gather data useful for the long-term ORV management plan/EIS to test for the distance at which vehicle disturbance to nesting American oystercatcher and colonial waterbirds occurs.</p> <p>All species:</p> <p>Allow observations to be responsive to individuality in bird behavior when determining adequate size of closure zones around nests. If nest is lost, buffers remain in place 2–3 weeks after nest is lost to determine if pair will re-nest, if no other species nesting in area.</p>
	<p><u>Adult Foraging:</u></p> <p>Piping plover: For adults foraging outside of a closure on two consecutive surveys, expand buffer to include foraging site. These closures are intended to provide foraging opportunities close to breeding sites.</p> <p>Colonial waterbirds, American oystercatcher, and Wilson's plover: No additional buffers/closures.</p>
	<p><u>Unfledged Chicks:</u></p> <p>Piping plover: Establish a minimum 600-foot buffer on either side of brood based on observation of bird behavior and terrain conditions at site. Based on observed behavior, buffer area may require expansion up to 3,000 feet if chicks are highly mobile. Based on observed behavior (i.e., mobility of the brood) and the capability to continually observe mobility and behavior, buffer zone can be reduced after the first week to no less than 300 feet, but may require expansion up to 3,000 feet if chicks are highly mobile. Buffer moves with chicks. Close bypass route at night if buffer zone, is less than 600 feet (as identified on p. 8 of the USFWS Amended Biological Opinion (2007) (attachment 1 to this FONSI)).</p> <p>When resource closures are created around broods, adjust the ORV corridor whenever possible to allow vehicle passage. Reduce ORV corridor if necessary. In areas in which the buffer zone would eliminate the ORV corridor identify alternate ORV routes if available. If there are no alternate ORV routes, then if possible establish a bypass (see "Short-term Bypass Route Criteria" on page 11 of this FONSI). Close beach to recreation access down to the waterline, if necessary to allow chicks access to foraging areas.</p> <p>American oystercatcher: Establish 150-foot to 300-foot buffer zone when unfledged chicks are present. Adjust buffer zone as needed when chicks are mobile. Provide alternate ORV/pedestrian access route or bypass to open areas beyond the closure, if possible.</p> <p>Colonial waterbirds: Establish 150-foot to 300-foot buffer zone when unfledged chicks present. Adjust buffer zone as needed when chicks are mobile. Provide alternate ORV/pedestrian access route or bypass to open areas beyond the closure, if possible.</p>

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Activity	<p>For all species: Allow observations to be responsive to individuality in bird behavior when determining adequate size of closure zones around broods.</p> <p>Reopen 100-foot-wide ORV corridor in recent or current nesting areas after chicks fledged. Areas outside of corridor, including the upper beach remain available for protected species use. Re-establish 150-foot ORV corridor after August 31.</p> <p>For piping plover: Suitable interior habitats at spits and at Cape Point closed year-round to all recreational users to provide for resting and foraging for all species. For example, at present, such suitable habitats include ephemeral ponds and moist flats at Cape Point, Hatteras Spit, Ocracoke, and Bodie Island Spit. Actual locations of suitable foraging and resting habitat may change periodically due to natural processes.</p>
Non Breeding/ Wintering Closures	<p>Establish a buffer approximately 30 feet by 30 feet with symbolic fencing and signage around nest.</p> <p>Approximately 50–55 days into incubation, closures expanded to the surf line. The width of the closure based on the type and level of use in the area of the beach where the nest was laid:</p> <ul style="list-style-type: none"> a. vehicle-free areas with little or no pedestrian traffic – 75 feet wide (total width); b. villages or other areas with high levels of day use –150 feet wide (total width); c. areas with ORV traffic – 350 feet wide (total width). <p>Opposite the surf line on the upper end of the closure, the closed area expanded to 50 feet where possible, but no less than 30 feet duneward from the nest. Traffic detours behind the nest area clearly marked with signs and reflective arrows.</p> <p>Where present within closure, vehicle tracks manually smoothed with rakes or a steel mat attached to an ATV, so as not to impede hatchlings attempting to reach the surf.</p> <p>Use light filtering fence behind nests nearing hatch dates to block light pollution from the villages and vehicles operating on the beach after dark.</p>
Nest Relocation	<p>When a nest is found, staff assesses need for nest relocation and follows relocation guidance identified in the NCWRC handbook.</p> <p>If it is determined the nest will not be relocated, it will be immediately protected with a symbolic fence measuring approximately 30 feet by 30 feet and signage.</p> <p>If a nest is threatened by a storm event, NPS will consult NCWRC to determine appropriate action.</p>
Light Management	<p>Establish turtle friendly lighting standards for all Seashore (NPS) structures.</p> <p>Encourage concessioners to install turtle friendly lighting.</p>
Research	<p>Support research efforts looking at the sex ratios of turtles.</p>
Seabeach Amaranth (SBA)	

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Buffers	<p>April 15 – November 30</p> <p>If a plant/seedling is found outside of an existing closure, the Seashore will erect symbolic fencing with signage creating a 30-foot by 30-foot buffer around the plant. If plants are located next to each other, the area will be expanded to create one enclosure protecting several plants.</p> <p>If a SBA is found during the survey prior to reopening a bird closure to ORV and pedestrian use, the Seashore will protect the SBA as described above and reopen the areas of the bird closure where no plants exist.</p> <p>Areas reopened if no plants are present by September 1. Where plants occur, the closed areas will be reopened after the plants have died.</p>
Predator Management	<p>Trappers will target red and gray fox, raccoons, cats and other predators for removal.</p> <p>Piping plover: Nests surveyed to count eggs and look for predator tracks.</p> <p>As applicable, predator exclosures are erected when nest found with eggs.</p> <p>American oystercatcher and colonial waterbirds: Nests surveyed to count eggs and look for predator tracks.</p> <p>Sea Turtle: Nests surveyed to count eggs and look for predator tracks. Predator exclosures may be placed over nests if predator tracks or nest predation is evident.</p> <p>SBA: No predator management.</p>
Conservation Measures	<p>Conservation measures are discretionary activities intended to minimize or avoid adverse effects of an action on listed species or critical habitat, to help implement recovery plans, or to develop information. Conservation measures outlined in the USFWS Amended Biological Opinion (2007) (attachment 1 to the FONSI) will be considered for implementation. The Seashore will notify the USFWS when any of these conservation measures are implemented.</p>

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