

CAPE HATTERAS ORV MANAGEMENT PLAN / EIS DRAFT ROUTES AND AREAS TABLE 9.1.2009

*mm*  
10/04/09

Oceanside Location	Mileage*	Alts A and B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
<b>Bodie Island (north to south)</b> Ramp 1 to north end of Coquina Beach	0.9	OPEN** Seasonally closed May 15 to Sep 15 (Longstanding safety closure).	ORV route—Mar 15 to Oct 14 Non-ORV area—Oct 15 to Mar 14	X	X Parking at ramp 1 expanded.	X
North end of Coquina Beach to 0.5 mile south of Coquina	0.8	OPEN** Seasonally closed May 15 to Sep 15 (Longstanding safety closure). South of ramp 2 at Coquina Beach open seasonally.	X Ramp 2 relocated approx. 0.5 mile south of Coquina Beach.	X Ramp 2 relocated approx. 0.5 mile south of Coquina Beach.	X Ramp 2 relocated approx. 0.5 mile south of Coquina Beach. Parking at Coquina Beach expanded.	X Ramp 2 relocated approx. 0.5 mile south of Coquina Beach.
0.5 mile south of Coquina to 0.2 mile south of ramp 4 (Includes beach in front of Oregon Inlet Campground. If Bonner Bridge construction closes ramp 4, new Ramp 3 will be constructed north of campground and day-use parking and trailhead near campground will be provided.)	2.1	OPEN YR**	ORV route YR	ORV route YR	ORV route YR ORV <b>pass-through zone</b> established on upper beach in front of campground when campground is open.	ORV route YR
0.2 mile south of ramp 4 to inlet to SW edge of Bait Pond (Species Management Area)	1.9	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14  Area closed to ORVs from March 15 to October 14. When pre-nesting area is established, a pedestrian access corridor would be allowed along ocean shoreline to the inlet. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor.  (SM2)	X (SM 1)	ORV route YR with limited access Mar 15 to Aug 31  When pre-nesting area is established, ORV corridor with <b>pass-through zone</b> would be allowed along ocean shoreline to the inlet. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor.  Pedestrian trail to inlet from new parking near campground established. Trail subject to resource closures.  NPS would allow water taxi service to spit from Oregon Inlet Fishing Center, subject to designated landing zone and to resource closures.  (SM2)	ORV route—Aug 1 to Mar 14 Non-ORV area—Mar 15 to Jul 31*  *Area closed to ORVs from March 15 to July 31, or until 2 weeks after shorebird breeding ceases or all chicks have fledged, whichever is later. When pre-nesting area is established, a pedestrian access corridor would be allowed along ocean shoreline to the inlet. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor.  Pedestrian trail to inlet from new parking near campground established. Trail subject to resource closures.  (SM2)
<b>Hatteras Island (north to south)</b> Rodanthe—Waves—Salvo to ramp 23 (includes Tri-Village beaches)	5.3	OPEN ** Seasonally closed May 15 to Sep 15.	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 Parking at ramp 23 expanded.	X	ORV route—Nov 1 to Mar 31 Non-ORV area—Apr 1 to Oct 31 Parking at ramp 23 expanded.	ORV route—Sep 16 to May 14 Non-ORV area—May 15 to Sep 15 Parking at ramp 23 expanded.

Comment: Park please verify this is correct

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Oceanside Location	Mileage*	Alts A and B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
Ramp 23 to ramp 27	4.3	OPEN YR**	ORV route YR	ORV route YR	ORV route YR One new ramp with parking established at 24 or 26.	ORV route YR. <del>One new ramp with parking established at 24 or 26.</del> <i>std</i> *There would be 1.5 miles of "floating" non-ORV area for nonbreeding shorebirds, either here or in one of the segments below.
Ramp 27 to ramp 30 (Species Management Area)	2.2	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 (SM1)	X (SM1)	X (SM1)	X (SM1)
Ramp 30 to (new) ramp 32.5	2.5	OPEN YR**	ORV route YR New ramp with parking established at 32.5.	ORV route YR New ramp established at 32.5.	ORV route YR New ramp with parking established at 32.5.	ORV route YR* New ramp with parking established at 32.5. *There would be 1.5 miles of "floating" non-ORV area for nonbreeding shorebirds, either here, in the above segment, or in the next segment.
(New) ramp 32.5 to ramp 34 (Species Management Area)	1.8	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 (SM1)	X (SM1)	ORV route—Sep 1 to Mar 14 Non-ORV area—Mar 15 to Aug 31 (SM1)	ORV route*—Aug 1 to Mar 14 Non-ORV area—Mar 15 to Jul 31* *Area closed from Mar 15 to Jul 31, or until 2 weeks after shorebird breeding ceases or all chicks have fledged, whichever is later. *There would be 1.5 miles of "floating" non-ORV area for nonbreeding shorebirds, either here or in one of the two previous segments. (SM1)
Ramp 34 to ramp 38 (includes Avon Village Beach)	3.9	OPEN** Seasonally closed May 15 to Sep 15.	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14	X	ORV route—Nov 1 to Mar 31 Non-ORV area—Apr 1 to Oct 31 Parking at ramp 34 expanded.	ORV route—Sep 16 to May 14 Non-ORV area—May 15 to Sep 15
Ramp 38 to approx. 1.7 miles south	1.7	OPEN YR**	ORV route YR	ORV route YR	ORV route YR Parking at ramp 38 expanded.	ORV route YR Parking at ramp 38 expanded.
Approximately 1.7 miles south of ramp 38 (i.e., Haulover) to Buxton line (Species Management Area)	2.0	OPEN YR** (Current 3.8-mile safety closure from 1.8 miles south of ramp 38 to 0.4 mile north of ramp 43.)	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 (SM1)	X (SM1)	ORV route—Sep 1 to Mar 14 Non-ORV area—Mar 15 to Aug 31 (SM1)	X New ramp 39 across from Haulover and new soundside parking at Kite Point established. (SM1)
Buxton village beach to 0.4 mile north of ramp 43	1.9	OPEN** Seasonally closed May 15 to Sep 15 (longstanding safety closure).	X NPS or Dare County to establish new parking at old Coast Guard Station site.	X	ORV route—Nov 1 to Mar 31 Non-ORV area—Apr 1 to Oct 31 NPS or Dare County to establish new ORV ramp and parking at old Coast Guard Station site.	X NPS or Dare County to establish new parking at old Coast Guard Station site.

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Oceanside Location	Mileage*	Alts A and B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
0.4 mile north of ramp 43 to ramp 43	0.4	OPEN** Subject to seasonal closure May 15 to Sep 15.	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 <del>Parking at ramp 43 expanded.</del>	X	ORV route—Mar 15 to Aug 31 Non-ORV area—Sep 1 to Mar 14 Open to ORVs only when east side of Cape Point is closed. <del>Parking at ramp 43 expanded.</del>	<del>ORV route YR</del> <del>Parking at ramp 43 expanded.</del>
Ramp 43 to 0.2 mile south of ramp 44	0.6	OPEN YR**	ORV route YR	ORV route YR	ORV route YR	ORV route YR
0.2 mile south of ramp 44 to Cape Point to approx. 0.2 mile west of the hook (Species Management Area)	1.0	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 When pre-nesting area is established, a pedestrian access corridor would be allowed along ocean shoreline to the point. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor. (SM2)	X (SM1)	ORV route YR with limited access Mar 15 to Aug 31 When pre-nesting area is established, ORV access corridor with pass-through zone would be allowed along ocean shoreline to the point. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor. (SM2)	ORV route YR with limited access Mar 15 to Jul 31 When pre-nesting area is established, ORV access corridor would be allowed along ocean shoreline to the point. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor. (SM2)
Cape Point 0.2 mile west of the hook to ramp 45 (Species Management Area)	1.2	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 (SM1)	X (SM1)	ORV route—Sep 1 to Mar 14 Non-ORV area—Mar 15 to Aug 31 (SM1)	ORV route—Aug 1 to Mar 14 Non-ORV area—Mar 15 to Jul 31 (SM1)
Ramp 45 to (new) ramp 47 (Species Management Area)	1.7	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 Interdunal road extended and new ramp 47 established. (SM1)	X (SM1)	ORV route—Sep 1 to Mar 14 Non-ORV area—Mar 15 to Aug 31 Interdunal road extended and new ramp 47 established. (SM1)	ORV route <sup>+</sup> —Aug 1 to Mar 14 Non-ORV area—Mar 15 to Jul 31 Interdunal road extended and new ramp 47 established. <sup>+</sup> There would be 1.5 miles of "floating" nonbreeding shorebird area, either here or in the segment below. (SM1)
(New) ramp 47 to ramp 49 (includes beach in front of Frisco Campground)	1.7	OPEN YR**	ORV route YR Interdunal road extended to ramp 49 and new ramp 48 established.	ORV route YR	ORV route YR ORV pass-through zone established on upper beach in front of campground (or bypass beach in front of campground via new interdunal road) when campground is open. Interdunal road extended west of new ramp 47 to ramp 49 and new ramp 48 established.	ORV route YR <sup>+</sup> Interdunal road extended west of new ramp 47 to ramp 49 and new ramp 48 established. <sup>+</sup> There would be 1.5 miles of "floating" nonbreeding shorebird area, either here or in the segment above.
Ramp 49 to East Frisco boundary	1.2	OPEN YR**	ORV route YR	ORV route YR	ORV route YR	ORV route YR
Frisco Village Beach (east village boundary to west boundary)	1.1	OPEN** Seasonally closed May 15 to Sep 15 (longstanding safety closure).	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14	X	X Parking at day-use area expanded.	ORV route—Dec 1 to Feb 28 Non-ORV area—Mar 1 to Nov 30

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Oceanside Location	Mileage*	Alts A and B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
Sandy Bay / Frisco Day-Use Area (west Frisco boundary to east Hatteras Village boundary)	1.4	OPEN** Seasonally closed May 15 to Sep 15 (longstanding safety closure).	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14	X	X	X
Hatteras Village Beach (east boundary to ramp 55)	2.2	OPEN** Seasonally closed May 15 to Sep 15 (longstanding safety closure).	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14	X	X	ORV route—Dec 1 to Feb 28 Non-ORV area—Mar 1 to Nov 30
Ramp 55 along ocean beach to 0.2 mile southwest of Bone Road	1.8	OPEN YR**	ORV route YR Parking expanded at ramp 55.	ORV route YR	ORV route YR Parking expanded at ramp 55.	ORV route YR
Pole Road from NC-12 past Cable Crossing access to Spur Road	2.3	OPEN YR**	ORV route YR	ORV route YR	ORV route YR	ORV route YR West of the overwash fan, Pole Road re-routed toward the sound to provide natural barrier to bird nesting area south of road.
Cable Crossing along sound shoreline to Spur Road	0.8	Varies	X	X	X	ORV route YR when width allows, subject to resource closure(s) to protect vegetation.
Spur Road along sound shoreline to Hatteras Inlet	0.2	OPEN YR**	ORV route YR Pedestrian access to the "rip" permitted from soundside during breeding season, subject to resource closures.	X	ORV route YR Pedestrian access to the "rip" permitted from soundside during breeding season, subject to resource closures.	ORV route YR Pedestrian access to the "rip" permitted from soundside during breeding season, subject to resource closures.
Ocean shoreline from 0.2 mile southwest of Bone Road (a.k.a. Fort Clark Spur) to inlet (Species Management Area)	1.0	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 (SM1)	X (SM1)	ORV route—Sep 1 to Mar 14 Non-ORV area—Mar 15 to Aug 31 (SM1)	X New interdunal road extending southwest and northeast of the south end of Pole Road established to provide access to False Point and inlet. (SM1)
Ocracoke Island (north to south) Inlet to 0.25 mile northeast of ramp 59 (Species Management Area)	1.1	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 Parking area at ramp 59 expanded. (SM1)	X (SM1)	X Parking area at ramp 59 expanded. Pedestrian access corridor(s) provided, subject to resource closures during breeding season. Pedestrian boardwalk access from ferry terminal parking developed. (SM1)	X New interdunal road established parallel to the beach extending from ramp 59 for 0.3 mile northeast toward the inlet, with parking at the terminus. (SM1)
0.25 mile northeast of ramp 59 to 0.25 mile southwest of ramp 59	0.5	OPEN YR**	ORV route YR	ORV route YR	ORV route YR	ORV route YR

ORV route YR  
ORV route YR  
0.25 mile northeast of ramp 59 to ramp 59  
Ramp 59  
Northwest of ramp 59  
Southwest of ramp 59 ORV route YR  
ok

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Oceanside Location	Mileage*	Alts A and B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
0.25 mile southwest of ramp 59 to new ramp 62 at 3.0 miles northeast of Pony Pen area	2.4	OPEN YR** (Longstanding safety closure.)	ORV route YR	ORV route YR	ORV route YR	X
New ramp 62 to new ramp 64 at 1.0 mile northeast of Pony Pen	2.0	OPEN YR** (Longstanding safety closure.)	ORV route YR New ramps 62 and 64 established. Parking established at ramp 64.	ORV route YR New ramps 62 and 64 established.	ORV route YR New ramps 62 and 64 established. Parking established at ramp 64.	ORV route YR New ramps 62 and 64 established. Parking established at ramp 64.
New ramp 64 at 1.0 mile northeast of Pony Pen to 0.75 mile northeast of ramp 67	2.3	OPEN YR** (Longstanding safety closure.)	X Parking at Pony Pen expanded.	X	X Parking at Pony Pen expanded.	X Parking at Pony Pen expanded.
0.75 mile northeast of ramp 67 to 0.5 mile northeast of ramp 68	1.4	OPEN YR**	ORV route YR	ORV route YR	ORV route YR	ORV route YR
0.5 mile northeast of ramp 68 to 0.5 mile southwest of ramp 68 (Ocracoke Campground area)	1.0	OPEN YR** Seasonally closed when campground open.	Seasonal ORV route Open when campground closed.	X	ORV route—Nov 1 to Mar 31 Non-ORV area—Apr 1 to Oct 31	ORV route—Nov 1 to Mar 31 Non-ORV area—Apr 1 to Oct 31
0.5 mile southwest of ramp 68 to 1.2 miles northeast of ramp 70 (Species Management Area)	0.9	OPEN YR** Seasonally closed when campground open.	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14 (SM1)	X (SM1)	X (SM1)	ORV route—Nov 1 to Mar 14 Non-ORV area—Mar 15 to Oct 31 (SM1)
1.2 miles northeast of ramp 70 to 0.5 mile northeast of ramp 70 (includes Ocracoke Day-Use Area)	0.8	OPEN YR** Seasonally closed when campground open.	X Parking at day-use area expanded.	X Parking at day-use area expanded.	X Parking at day-use area expanded.	ORV route—Nov 1 to Mar 31 Non-ORV area—Apr 1 to Oct 31
0.5 mile northeast of ramp 70 to 0.5 mile southwest of ramp 72	2.7	OPEN YR**	ORV route YR	ORV route YR	ORV route YR	ORV route YR
0.5 mile southwest of ramp 72 to inlet (Species Management Area)	3.0	OPEN YR**	ORV route—Oct 15 to Mar 14 Non-ORV area—Mar 15 to Oct 14  When pre-nesting area is established, a pedestrian access corridor would be allowed along ocean shoreline to the inlet. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor. (SM2)	X (SM1)	ORV route YR with limited access Mar 15 to Aug 31  When pre-nesting area is established, ORV access corridor with pass-through zone would be allowed along ocean shoreline to the inlet. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor.  NPS would also allow water taxi service to spit from Silver Lake, subject to designated landing zone and resource closures. (SM2)	ORV route YR* with limited access Mar 15 to Jul 31  When pre-nesting area is established, ORV access corridor would be allowed along ocean shoreline to the inlet. When shorebird breeding activity is observed, standard buffers would apply, which depending upon the circumstances could close the access corridor.  *There would be 1.0 mile of "floating" ocean shoreline area for nonbreeding shorebirds. Area would be bypassed via the ORV corridor on the upper beach during nonbreeding season. (SM2)

\* All mileages are approximate.

\*\*Area(s) open to ORV use, except when resource, seasonal, or safety closures are in effect.

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Designated ORV routes and areas (X = No ORV use permitted, YR = ORV use permitted year-round).

All ORV routes and areas subject to temporary resource closures.

**Species Management Areas (SMAs):** SM1 and SM2 are the two proposed strategies for species management. See Species Management Table for detailed description of these strategies. All areas outside of designated SMAs would be managed under the SM1 strategy.

(SM1 areas) Once pre-nesting closures are established at SM1 areas, ORV and pedestrian access would be prohibited until breeding activity is completed.

(SM2 areas) Once pre-nesting closures are established at SM2 areas, ORV or pedestrian access corridor(s) and/or boat landing areas (as indicated in the respective alternatives) would be permitted. Upon the first observation of breeding activity, standard SM2 buffers would apply, which depending upon the circumstances may close the access corridor.

Approximate Mileage Summary	A and B	C	D	E	F
Closed to ORVs (X)	varies	11.9	40.8	14.5	16.0
Seasonal ORV use	varies	28.7	0	26.1	25.8
ORV route YR	varies	27.4	27.2	27.4	26.2
Total	66 to 68	68.0	68.0	68.0	68.0

TABLE 1. ORV ROUTES AND AREAS

MM 10/64/09

	Alternative A—No Action: Continuation of Management under the Interim Strategy	Alternative B—No Action: Continuation of Management under the Interim Strategy	Alternative C—Seasonal Management	Alternative D—Increased Predictability and Simplified Management	Alternative E—Variable Access and Maximum Management	Alternative F—Management Based on Advisory Committee Input
ORV Routes, Use Areas, and Corridors	<p><b>ORV corridors:</b> The ORV corridor on the ocean beach is marked by posts placed approx. 150 ft landward from the average, normal high tide line, or if less than 150 ft of space is available, at the vegetation or the toe of the remnant dune line; except as noted in the interim strategy. The corridor width will fluctuate over time due to the dynamic nature of beach and surf.</p>	<p><b>ORV corridors:</b> The ORV corridor on the ocean backshore at least 10 meters wide, wherever there is sufficient beach width to allow an ORV corridor of at least 20 meters above the mean high tide line.</p>	<p><b>ORV routes:</b> ORV access would be prohibited in all areas of the Seashore except where an ORV route is specifically designated.</p> <p>An <i>ORV route</i> is a designated location, typically linear in nature (e.g., from point A to point B), where ORV travel may be authorized by the Superintendent, but which may be temporarily closed to ORV use to protect park resources, provide for visitor safety, or prevent user conflicts. Refer to table 2 (Routes and Areas).</p> <p><b>ORV corridors:</b> An <i>ORV corridor</i> is the actual physical demarcation of the ORV route in the field. The ORV corridor on the ocean beach would be marked by posts seaward of the toe of dune or vegetation line to the high tide line (the seaward side of the corridor would not be posted). ORV routes through vegetated areas, such as interdunal roads and ramps, would be posted on both sides of the corridor.</p> <p><b>Seasonally designated ORV routes:</b> These would occur as indicated in table 2 (Routes and Areas).</p>	<p><b>ORV routes:</b> ORV access would be prohibited in all areas of the Seashore except where an ORV route is specifically designated. The definition of ORV route is same as for alternative C.</p> <p><b>ORV corridors:</b> Same as alternative C.</p> <p><b>Seasonally designated ORV routes:</b> No seasonal designations under this alternative.</p>	<p><b>ORV routes:</b> ORV access would be prohibited in all areas of the Seashore except where an ORV route is specifically designated. The definition of ORV route is same as for alternative C.</p> <p><b>ORV corridors:</b> Same as alternative C, except: year-round: Where the ocean beach is at least 30 m wide above the high tide line, the corridor would be posted 10 meters seaward of the toe of the dune to provide an ocean backshore closure.</p> <p><b>Seasonally designated ORV routes:</b> These would occur as indicated in table 2 (Routes and Areas).</p>	<p><b>ORV routes:</b> ORV access would be prohibited in all areas of the Seashore except where an ORV route is specifically designated. The definition of ORV route is same as for alternative C.</p> <p><b>ORV corridors:</b> Same as alternative C, except: year-round: Where the ocean beach is at least 30 m wide above the high tide line, the corridor would be posted 10 meters seaward of the toe of the dune to provide an ocean backshore closure.</p> <p><b>Seasonally designated ORV routes:</b> These would occur as indicated in table 2 (Routes and Areas).</p>
Village, Campground, and Day-Use Area Beaches	<p><b>Village beaches</b>, as identified below, are seasonally closed to ORV use from May 15 through Sep 15:</p> <ul style="list-style-type: none"> <li>- Bodie Island from ramp 1 to 0.6 mi S of Coquina Beach. (Table 2 says 0.5 mi. Park to clarify.)</li> <li>- Beaches fronting the villages of Rodanthe, Waves, Salvo, and Avon.</li> <li>- The beach fronting Buxton S to ramp 43.</li> <li>- Beaches fronting the villages of Frisco and Hatteras.</li> </ul> <p><b>Ocracoke Day-Use Area and Campground beaches:</b> Ocracoke Island from 0.5 mi S of ramp 67 to 0.25 mi N of ramp 70 closed to ORVs when campground is open (approx. Apr 1 to Oct 31).</p>	<p>Same as alternative A, except:</p> <ul style="list-style-type: none"> <li>- The beach from ramp 43 to 0.4 mi N is open to ORVs year-round.</li> </ul> <p><i>Bodie Island from Ramp 1 to 1 mile S of Coquina Beach</i></p>	<p>Village, campground, and day-use beaches would be managed as follows (also described in table 2):</p> <p><b>Seasonally restricted ORV routes:</b> (closed to ORVs Mar 15 to Oct 14, unless otherwise indicated)</p> <ul style="list-style-type: none"> <li>- Rodanthe, Waves, Salvo, Avon, Frisco, and Hatteras Village beaches.</li> <li>- Ocracoke campground beach, from 0.5 mi NE to 0.5 mi SW of ramp 68 (closed to ORVs when campground is open, which is approx. Apr 1 to Oct 31).</li> </ul> <p><b>Non-ORV areas year-round:</b></p> <ul style="list-style-type: none"> <li>- Buxton beach S to 0.4 mi N of ramp 43.</li> <li>- Ocracoke Day-Use Area beach, from 1.2 mi NE to 0.5 mi NE of ramp 70.</li> </ul>	<p>Village beaches would be managed as follows (also described in table 2):</p> <p><b>Seasonally restricted ORV routes:</b> (closed to ORVs Apr 1 to Oct 31)</p> <ul style="list-style-type: none"> <li>- Rodanthe, Waves, Salvo, and Avon beaches, and Buxton Beach S to 0.4 mi N of ramp 43.</li> <li>- Ocracoke Campground Beach, from 0.5 mi NE to 0.5 mi SW of ramp 68.</li> </ul> <p><b>Non-ORV areas year-round:</b></p> <ul style="list-style-type: none"> <li>- All village beaches would be non-ORV year-round.</li> </ul>	<p>Village beaches would be managed as follows (also described in table 2):</p> <p><b>Seasonally restricted ORV routes:</b> (closed to ORVs Apr 1 to Oct 31)</p> <ul style="list-style-type: none"> <li>- Rodanthe, Waves, Salvo, and Avon beaches (closed to ORVs May 15 to Sep 15).</li> <li>- Frisco and Hatteras Village beaches would be closed to ORVs Mar 1 to Nov 30.</li> <li>- Ocracoke Campground Beach, from 0.5 mi NE to 0.5 mi SW of ramp 68 (closed to ORVs Apr 1 to Oct 31).</li> <li>- Ocracoke Day-Use Area Beach, from 1.2 mi NE to 0.5 mi NE of ramp 70 (closed to ORVs Apr 1 to Oct 31).</li> </ul> <p><b>Non-ORV areas year-round:</b></p> <ul style="list-style-type: none"> <li>- Bodie Island from ramp 1 to approx. 0.5 mi S of Coquina Beach.</li> <li>- Buxton Beach S to 0.4 mi N of ramp 43.</li> </ul>	

4imprint Post-it® Notes 3" x 4"  
Thayer,  
My comments -  
Please Fedex to  
is Berger. Thx, Mike

Analysis will change!  
• Ramp 24 AND 26  
• NO expanded parking @ 45  
• Carrying capacity on Ocracoke

check 1/4 to sent to Dorcy W. of Coquina Area

ok  
10/6/09

TABLE 1. ORV ROUTES AND AREAS

ORV Access	<p><b>Oceanside access:</b> ORV access is provided via 17 oceanside ramps and access points located off NC-12. Ramps are numbered and identified on the Seashore's ORV route map as official vehicle access routes. Seashore staff maintains ramps and signage.</p>	<p><b>Oceanside access:</b> Same as alternative A.</p>	<p><b>Oceanside access:</b> To provide access to the designated ORV routes and non-ORV areas in addition to the existing ramps, which would be maintained, new or improved ramps would be developed as identified in table 2. Toilet facilities and trash receptacles would be provided at high use locations.</p>	<p><b>Oceanside access:</b> Same as alternative C.</p>	<p><b>Oceanside access:</b> Same as alternative C.</p>	<p><b>Oceanside access:</b> Same as alternative C.</p>
	<p><b>Soundside access:</b> ORV access is provided via 18 soundside access points located off NC-12. Seashore staff maintains ramps and signage.</p>	<p><b>Soundside access:</b> Same as alternative A.</p>	<p><b>Soundside access:</b> Existing soundside ramps would be designated as ORV routes and would remain open with sufficient maintenance to provide clear passage.  Signage/posts would be installed at the primitive parking areas and boat launch areas to prevent damage to vegetation and other soundside resources.</p>	<p><b>Soundside access:</b> Same as alternative A.</p>	<p><b>Soundside access:</b> Soundside ramps to designated boat launch areas and Pole Road access to the sound via Cable Crossing and Spur Road would remain open. The remaining soundside ramps would be closed to ORV use and small parking areas would be constructed to provide pedestrian access to the water, except:  - Existing Ocracoke Island access points N of village would remain open to commercial fishermen.  Signage/posts would be installed at the parking areas and boat launch areas to prevent damage to vegetation and other soundside resources.</p>	<p><b>Soundside access:</b> Same as alternative C, plus: <b>Bodie Island:</b> Develop a new soundside vehicular access point (ORV or other). <b>Ocracoke Island:</b> Develop a new soundside access point approx. 0.65 mi S of ramp 72 by establishing short ORV route perpendicular from ocean beach toward sound, ending in a small unpaved parking area with a pedestrian trail leading to the sound.</p>
	<p><b>Interdunal roads:</b> One-lane, interdunal routes have been designated as follows:</p> <p><b>Bodie Island Ranger District:</b> None.</p> <p><b>Hatteras Island Ranger District:</b> - Cape Point between ramp 44 and ramp 45. - Hatteras Inlet from ramp 55 to the inlet (includes Pole Road and Spur Road).</p> <p><b>Ocracoke Island Ranger District:</b> None.</p>	<p><b>Interdunal roads:</b> Same as alternative A.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative A.</p> <p><b>Ocracoke Island Ranger District:</b> Same as alternative A.</p>	<p><b>Interdunal roads:</b> Same as alternative A, plus: - Existing interdunal roads would be better maintained as needed to provide access to ORV areas. Pullouts or road widening would be provided where appropriate to provide safe passage.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative A, plus: - <b>South Beach:</b> Extend interdunal road W of ramp 45 to new ramp 47.</p> <p><b>Ocracoke Island Ranger District:</b> Same as alternative A.</p>	<p><b>Interdunal roads:</b> Same as alternative A.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative A.</p> <p><b>Ocracoke Island Ranger District:</b> Same as alternative A.</p>	<p><b>Interdunal roads:</b> Same as alternative C.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative C, except: - <b>South Beach:</b> Extend interdunal road W of ramp 45 to ramp 48. Establish new ramp 48 off of interdunal road.</p> <p><b>Ocracoke Island Ranger District:</b> Same as alternative A.</p>	<p><b>Interdunal roads:</b> Same as alternative C.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative E, plus: - <b>Hatteras Inlet Spit:</b> Re-route Pole Road toward the sound W of the Overwash Fan to provide natural barrier to bird nesting area S of road; and establish new interdunal road, with SW and NE extensions parallel to the beach, from the southern terminus of Pole Road to provide access to False Point and inlet.</p> <p><b>Ocracoke Island Ranger District:</b> <b>North Ocracoke Spit:</b> Establish new interdunal road parallel to the beach from ramp 59 for 0.3 mi NE toward the inlet, with parking area at the terminus.</p>
	<p><b>Interdunal roads:</b> One-lane, interdunal routes have been designated as follows:</p> <p><b>Bodie Island Ranger District:</b> None.</p> <p><b>Hatteras Island Ranger District:</b> - Cape Point between ramp 44 and ramp 45. - Hatteras Inlet from ramp 55 to the inlet (includes Pole Road and Spur Road).</p> <p><b>Ocracoke Island Ranger District:</b> None.</p>	<p><b>Interdunal roads:</b> Same as alternative A.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative A.</p> <p><b>Ocracoke Island Ranger District:</b> Same as alternative A.</p>	<p><b>Interdunal roads:</b> Same as alternative A, plus: - Existing interdunal roads would be better maintained as needed to provide access to ORV areas. Pullouts or road widening would be provided where appropriate to provide safe passage.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative A, plus: - <b>South Beach:</b> Extend interdunal road W of ramp 45 to new ramp 47.</p> <p><b>Ocracoke Island Ranger District:</b> Same as alternative A.</p>	<p><b>Interdunal roads:</b> Same as alternative A.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative A.</p> <p><b>Ocracoke Island Ranger District:</b> Same as alternative A.</p>	<p><b>Interdunal roads:</b> Same as alternative C.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative C, except: - <b>South Beach:</b> Extend interdunal road W of ramp 45 to ramp 48. Establish new ramp 48 off of interdunal road.</p> <p><b>Ocracoke Island Ranger District:</b> Same as alternative A.</p>	<p><b>Interdunal roads:</b> Same as alternative C.</p> <p><b>Bodie Island Ranger District:</b> Same as alternative A.</p> <p><b>Hatteras Island Ranger District:</b> Same as alternative E, plus: - <b>Hatteras Inlet Spit:</b> Re-route Pole Road toward the sound W of the Overwash Fan to provide natural barrier to bird nesting area S of road; and establish new interdunal road, with SW and NE extensions parallel to the beach, from the southern terminus of Pole Road to provide access to False Point and inlet.</p> <p><b>Ocracoke Island Ranger District:</b> <b>North Ocracoke Spit:</b> Establish new interdunal road parallel to the beach from ramp 59 for 0.3 mi NE toward the inlet, with parking area at the terminus.</p>

*Is approx. 0.5 mile south of where R72 meets the beach. need to show on map (is different from Shirley's Lane)*

*Establish new ramps 47 and 48 off of interdunal road.*

*Is this worth keeping if can drive 0.25 mi on beach?*



TABLE 1. ORV ROUTES AND AREAS

<p>Hours of Allowable ORV Operation on Beach (when area open to ORV use**)</p>	<p>All areas of the seashore open 24 hours a day year-round.</p>	<p>Nov 16 to Apr 30: All beaches open to ORV use 24 hours a day. May 1 to Nov 15: All potential sea turtle nesting habitat (ocean intertidal zone, ocean backshore, and dunes) closed to non-essential ORV use from 10:00 p.m. to 6:00 a.m., except that from Sep 16 to Nov 15 ORV use is allowed from 10:00 p.m. to 6:00 a.m. subject to terms and conditions of a permit.</p>	<p>Nov 16 to Apr 30: Designated ORV routes would be open to ORV use 24 hours a day. May 1 to Nov 15: Designated ORV routes in potential sea turtle nesting habitat (ocean intertidal zone, ocean backshore, and dunes) would be closed to non-essential ORV use from 7:00 p.m. to 7:00 a.m. Hours of night driving prohibition would be established in the Superintendent's Compendium and subject to periodic review.</p>	<p>Same as alternative C, except: - No periodic review.</p>	<p>Nov 16 to Apr 30: Designated ORV routes would be open to ORV use 24 hours a day. May 1 to Nov 15: Designated ORV routes in potential sea turtle nesting habitat (ocean intertidal zone, ocean backshore, and dunes) would be closed to non-essential ORV use from 10:00 p.m. to 6:00 a.m. Sep 16 to Nov 15: <del>Selected</del> ORV routes with no or low density of turtle nests would reopen to ORV use between 10:00 p.m. and 6:00 a.m., subject to terms and conditions of permit.</p>	<p>Nov 16 to Apr 30: Designated ORV routes would be open to ORV use 24 hours a day. May 1 to Nov 15: Designated ORV routes in potential sea turtle nesting habitat (ocean intertidal zone, ocean backshore, and dunes) would be closed to non-essential ORV use from 1 hour after sunset until turtle patrol has checked the beach in the morning (by approx. 1/2 hour after sunrise). Sep 16 to Nov 15: <del>Selected</del> ORV routes with no or low density of turtle nests remaining would reopen for night driving, subject to terms and conditions of an ORV permit. Hours of night driving prohibition would be established in the Superintendent's Compendium and subject to periodic review.</p>
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TABLE 1. ORV ROUTES AND AREAS

<p>ORV Safety Closures</p>	<p>ORV safety closures are established as needed to address safety conditions such as debris on the beach or narrow beaches. Narrow beaches are reopened as the beach widens. Safety closures applicable only to ORV access; pedestrian access is maintained.</p> <p>Existing ORV safety closures include:</p> <ul style="list-style-type: none"> <li>- Ramp 1 to ramp 2</li> <li>- 1.8 mi S of ramp 38 to 0.4 mi N of ramp 43.</li> <li>- Buxton to Lighthouse Beach.</li> <li>- Northern boundary of Frisco to Hatteras Village.</li> <li>- Hatteras Village Beach.</li> <li>- 1.5 mi N of ramp 67 to 1 mi S of ramp 59.</li> </ul>	<p>Same as alternative A.</p>	<p>ORV safety closures would be established on designated ORV routes as needed to address ORV and pedestrian safety considerations, including the following:</p> <ul style="list-style-type: none"> <li>- Debris on the beach.</li> <li>- Narrow beaches.</li> <li>- Congested areas.</li> </ul> <p>Safety closures would preclude ORV access, while pedestrian and commercial fishing access would generally be maintained through safety closures.</p> <p>NPS law enforcement staff would monitor ORV safety closures on a weekly basis. Sufficient reduction or elimination of the conditions prompting the closure, so there is no longer an imminent hazard, would constitute the trigger for reopening an ORV safety closure.</p>	<p>ORV safety closures would not be established. ORV drivers would be responsible for recognizing and avoiding ORV safety hazards and would drive at own risk.</p>	<p>Same as alternative C.</p>	<p>Same as alternative C, plus:</p> <p>An ORV safety closure would be implemented in the event of a clear and imminent threat of significant bodily injury or death, and/or damage to personal property, including vehicles and their contents.</p> <p>Triggers that could justify a safety closure include, but are not limited to:</p> <ul style="list-style-type: none"> <li>- Deep beach cuts that block the beach from dune to surf with no obvious way around.</li> <li>- Obstacles, such as exposed stumps, shipwrecks, or debris, that cannot be safely bypassed or that block the entire width of the beach and cannot be easily removed.</li> <li>- Severe beach slope that puts vehicles in an unsafe gradient position and increases the chances of the loss of vehicular control.</li> <li>- A high concentration of pedestrian users coupled with a narrow beach.</li> </ul> <p>Triggers do not include:</p> <ul style="list-style-type: none"> <li>- A narrow beach by itself.</li> <li>- High tides. High tides that block access through portions of beaches occur periodically and predictably, and are an obvious, easily avoidable hazard.</li> <li>- Hazards blocking only a portion of the beach, where safe passage is available around the hazard.</li> </ul> <p>ORV safety closures would preclude ORV access, while pedestrian and commercial fishing access would be maintained through most safety closures.</p> <p>NPS law enforcement staff will monitor ORV safety closures on a weekly basis. Sufficient reduction or elimination of the conditions prompting the closure, so there is no longer an imminent hazard, would constitute the trigger for reopening a closure.</p>
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~~Resource~~ Resource Closures  
 Resource closures are established as needed to protect wildlife and wildlife habitat. See [unclear]

~~Resource~~ Resource Closures  
 Resource closures would be established as needed to protect vegetation, wildlife and wildlife habitat. See [unclear]

~~Resource~~ Resource Closures  
 Resource Closures  
 (disregard) ✓ Same as alt C.

TABLE 1. ORV ROUTES AND AREAS

<p><b>Pedestrian Safety</b></p>	<p><b>36 CFR 4.20, Right-of-Way:</b> An operator of a motor vehicle shall yield the right of way to pedestrians (as well as saddle and pack animals, and vehicles drawn by animals). Failure to yield the right of way is prohibited.</p> <p><b>36 CFR 4.22, Unsafe Operation:</b>                  (b) The following are prohibited:                  (3) Failing to maintain that degree of control of a motor vehicle necessary to avoid danger to persons, property, or wildlife.                  No additional measures apply.</p>	<p>Same as alternative A.</p>	<p>Same as alternative A.</p>	<p>Same as alternative A.</p>	<p>Same as alternative A, plus:</p> <ul style="list-style-type: none"> <li>- For village beaches that are open to ORV use during the winter season, the village beaches must be at least 20 m (66 ft) wide from the toe of the dune seaward to mean high tide line in order to be open to ORV use.</li> </ul>	<p>Same as alternative A, plus:</p> <ul style="list-style-type: none"> <li>- Vehicles must yield to pedestrians on all ORV routes.</li> <li>- When approaching or passing a pedestrian on the beach, ORVs shall move to the landward side of the available ORV driving in order to yield the wider portion of the beach corridor to the pedestrian.</li> <li>- ORVs shall slow to 5 mph (or the slowest possible speed to maintain traction without exceeding the overall speed limit) when traveling within 30 ft (9 m) or less of pedestrians at any location on the beach at any time of year.</li> <li>- Pedestrians should not block access ramps and should use pedestrian ramps/boardwalks where available. If a pedestrian walkover is not available, pedestrians should walk to the side of ORV ramps, not in the tire tracks.</li> </ul>
<p><b>Administrative ORV Closures</b></p>	<p>The beach in front of the former site of Cape Hatteras Lighthouse is closed to ORV access.                  Buxton Woods Road is closed to ORV access.</p>	<p>Same as alternative A.</p>	<p>No administrative closures would be established. ORV routes and non-ORV areas would be designated as described in table 2.</p>	<p>Same as alternative C.</p>	<p>Same as alternative C.</p>	<p>Same as alternative C.</p>
<p><b>Temporary Emergency ORV Closures</b></p>	<p>Temporary emergency ORV closures established per Superintendent's Compendium and NPS policy.</p>	<p>Same as alternative A, plus:                  NPS retains the authority to implement a temporary emergency ORV closure if any of the following conditions are observed:</p> <ul style="list-style-type: none"> <li>- ORV traffic is backing up on the beach access ramps, either on- or off-beach bound, which threatens to impede traffic flow.</li> <li>- ORV traffic on the beach is parked in such a way that two-way traffic is impeded.</li> <li>- Multiple incidents of disorderly behavior are observed or reported.</li> </ul>	<p>Same as alternative B, plus:</p> <ul style="list-style-type: none"> <li>- Beaches would be temporarily closed to additional ORV use if/when carrying capacity is reached or exceeded.</li> </ul>	<p>Same as alternative B.</p>	<p>Same as alternative C.</p>	<p>Same as alternative C.</p>
<p><b>Ramp Characteristics</b></p>	<p>Ramp width and construction details vary. Current practice is to use shell/clay base material to provide firm driving surface where ramps cross dune line.</p>	<p>Same as alternative A.</p>	<p>Ramps would be two lanes wide with shell/clay base and have:</p> <ul style="list-style-type: none"> <li>- Standard regulatory signs and information boards at all ramps.</li> <li>- Gates at all ramps and access points.</li> <li>- Designated "air down" area with hardened surface (e.g., shell/clay base).</li> </ul>	<p>Same as alternative C.</p>	<p>Same as alternative C.</p>	<p>Same as alternative C, plus:</p> <ul style="list-style-type: none"> <li>- Preferably, each ORV route would have an access ramp at either end of the route.</li> </ul>

Resource

TABLE 1. ORV ROUTES AND AREAS

Permit Requirements	No permit required.	Night driving permit required for ORV use from 10:00 p.m. to 6:00 a.m. Sep 16 to Nov 15.	ORV permit required.	Same as alternative C.	Same as alternative C.	Same as alternative C.
Permit Distribution	N/A	Available in person at various locations and online.	Available in-person at designated permit issuing stations and on-line	Same as alternative C.	Same as alternative C.	Same as alternative C.
Permit Issuance Requirements	N/A	ORV owner must sign permit to acknowledge understanding of the rules and must carry permit when beach driving during the restricted period.	ORV owners must complete a short education program in person or online and pass a basic knowledge test. Owners would sign for their permits to acknowledge understanding of the rules and regulations governing ORV use at the Seashore.	ORV owners must read an information brochure and sign the permit to acknowledge understanding of the rules and regulations governing ORV use at the Seashore.	Same as alternative C.	Same as alternative C.
Permit Types	N/A	Night-driving permit for Sep 16 to Nov 15.	Annual ORV permits would be valid for 12 months from date of purchase.	Annual ORV permits would be valid for the calendar year.	Weekly (7-day) and annual (12-month) ORV permits would be valid from date of purchase. Permits would include <del>night-driving component for Sep 16-Nov 15</del> . In addition, a separate permit would be required for the following activities: <ul style="list-style-type: none"> <li>- Park-and-stay overnight.</li> <li>- Self-contained vehicle (SCV) camping.</li> <li>- <del>Night-driving permit required from Sep 16 to Nov 15.</del></li> </ul>	Weekly (7-day) and annual (12-month) ORV permits would be valid from date of purchase. Permits would include <sup>5</sup> night-driving component for Sep 16-Nov 15. <ul style="list-style-type: none"> <li>- <del>Night-driving permit required from Sep 16 to Nov 15.</del></li> </ul>
Permit Number Limits	N/A	No limit on night-driving permits.	No limit on ORV permits.	Same as alternative C.	Same as alternative C, except: <ul style="list-style-type: none"> <li>- Use limits would be established for park-and-stay and SCV camping.</li> <li>- Use limits would be subject to periodic review.</li> </ul>	Same as alternative C.
Permit Fees	N/A	None	ORV permit fee would be based on cost recovery as described in NPS Director's Order and Reference Manual # 53.	Same as alternative C, except: <ul style="list-style-type: none"> <li>- Amount of fee would be lower than alternative C due to decreased management costs under this alternative.</li> </ul>	Same as alternative C, except: <ul style="list-style-type: none"> <li>- Fee for weekly ORV permit would be less than fee for annual permit.</li> <li>- Fees for park-and-stay and SCV permits would be determined separately.</li> </ul>	Same as alternative C, except: <ul style="list-style-type: none"> <li>- Fee for weekly ORV permit would be less than fee for annual permit.</li> </ul>
Permit Form	N/A	Night-driving permit is an informational brochure that the user signs and places on dash of vehicle.	ORV permit would be affixed to vehicle in a manner approved by the NPS.	Same as alternative C.	Same as alternative C.	Same as alternative C.
Permit Revocation	N/A	Night-driving permit may be revoked for violation of applicable park regulations or terms and conditions of the permit.	ORV permit may be revoked for violation of applicable park regulations or terms and conditions of the permit.	Same as alternative C.	Same as alternative C.	Same as alternative C.
Beach Parking	Parking within routes is allowed in any configuration. <i>as long as parked vehicles do not obstruct traffic,</i>	Same as alternative A.	Same as alternative A.	Parking within ORV routes is allowed, but only one vehicle deep. Stacking of vehicles in more than one row would be prohibited.	Same as alternative A.	Same as alternative A.

TABLE 1. ORV ROUTES AND AREAS

<p>Vehicle Carrying Capacity Determination</p>	<p>Vehicle carrying capacity would not be determined.</p>	<p>Same as alternative A.</p>	<p>Carrying capacity would be a "peak use limit" determined for all areas based on the linear feet of beachfront and the following physical space requirements ("mi" refers to miles of beach open to ORV use):</p> <p><b>Bodie Island Ranger District:</b></p> <ul style="list-style-type: none"> <li>- 260 vehicles/mi (20 ft/vehicle).</li> </ul> <p><b>Hatteras Island Ranger District:</b></p> <ul style="list-style-type: none"> <li>- 260 vehicles/mi (20 ft/vehicle).</li> </ul> <p><b>Ocracoke Island Ranger District:</b></p> <p><del>175</del> vehicles/mi (<del>30</del> ft/vehicle).</p> <p>Temporary exceptions to carrying-capacity limits may be approved for short-term events operating under a special-use permit.</p> <p>Carrying-capacity criteria would be subject to periodic review.</p>	<p>Carrying capacity would be addressed solely by the beach parking restriction described in the row above.</p>	<p>Same as alternative C, except:</p> <p><b>Hatteras Island Ranger District:</b></p> <ul style="list-style-type: none"> <li>- Cape Point: 400 vehicles allowed within a 1 mi area centered on Cape Point.</li> </ul> <p><del>Ocracoke Island Ranger District:</del></p> <p><del>175 vehicles/mi (30 ft/vehicle).</del></p>	<p>Same as alternative E, except:</p> <p><b>Ocracoke Island Ranger District:</b></p> <ul style="list-style-type: none"> <li>- 260 vehicles/mi (20 ft/vehicle).</li> </ul>
<p>ORV Characteristic Requirements</p>	<p>All vehicles operating in all areas of the Seashore must have valid vehicle registration, insurance, and license plate.</p> <p>Vehicles must be street legal. All-terrain vehicles (ATVs) are prohibited from beach driving.</p>	<p>Same as alternative A.</p>	<p>Vehicle characteristics:</p> <ul style="list-style-type: none"> <li>- All vehicles must be registered, licensed, and insured for highway use and must comply with state inspection regulations within the state, country, or province where the vehicle is registered</li> <li>- Four-wheel-drive vehicles are recommended.</li> <li>- Two-wheel-drive vehicles are allowed.</li> <li>- Motorcycles and ATVs are prohibited.</li> <li>- There is a three-axle maximum for vehicles (this is the axle maximum for the powered vehicle only and does not include the additional number of axles on towed trailers).</li> <li>- Any trailers are limited to no more than two axles.</li> <li>- The maximum vehicle length is 30 ft (this is the maximum length for the powered vehicle and does not include the additional length of a towed trailer).</li> <li>- Tires must be U.S. Dept. of Transportation-listed or approved.</li> </ul>	<p>Same as alternative C.</p>	<p>Same as alternative C, except:</p> <ul style="list-style-type: none"> <li>- Motorcycles would be prohibited on ocean beaches, but allowed on soundside access areas where ORVs are allowed.</li> </ul>	<p>Same as alternative C.</p>

TABLE 1. ORV ROUTES AND AREAS

Equipment Requirements	None	Same as alternative A.	Equipment requirements: - All vehicles shall contain a low-pressure tire gauge, shovel, jack, and jack stand. - A full-sized spare tire, first-aid kit, fire extinguisher, trash bag or container, flashlight (if night driving), and tow strap are <i>recommended</i> .	Same as alternative C.	Same as alternative C.	Same as alternative C.
Tire Pressure	Recommend air down of tires before driving on the beach.	Same as alternative A.	When driving on designated routes, tire pressure must be lowered sufficiently to maintain adequate traction within the posted speed limit. Tire pressure of 20 psi is <i>recommended</i> for most vehicles. The softer the sand, the lower the pressure needed. Re-inflate tires to normal pressure as soon as possible after vehicle returns to paved roads.	Same as alternative C.	Same as alternative C.	Same as alternative C.
Speed Limit	Speed limit is 25 mph (unless otherwise posted) on park beaches for public and private vehicles. Speed limit is 10 mph when ORV corridor is less than 100 ft wide. Speed limit in front of villages during off season (Sep 16 to May 14) on park beaches posted at 10 mph. Emergency vehicles exempt when responding to a call.	May 15 to Sep 15: Speed limit is 15 mph (unless otherwise posted) Sep 16 to May 14: Speed limit is 25 mph (unless otherwise posted)	Speed limit is 15 mph (unless otherwise posted). Emergency vehicles exempt when responding to a call.	Same as alternative C.	Same as alternative C.	Same as alternative C.
Essential Vehicles	Essential vehicles are allowed in non-ORV areas and within resource closures subject to guidelines in Essential Vehicles section of Appendix G of the USFWS <i>Piping Plover, Atlantic Coast Population, Revised Recovery Plan</i> . To the extent practicable, emergency response vehicle operators will consult with trained resource management staff regarding protected species before driving into or through resource closures; however, prior consultation may not always be practical.	Same as alternative A.	Same as alternative A.	Same as alternative A.	Same as alternative A.	Same as alternative A.
Non-ORV Areas	None designated. ORVs are temporarily prohibited in seasonal (village) closures, safety closures, administrative closures, and resource closures, including some areas that have been closed to ORV use for many years.	Same as alternative A.	Non-ORV areas would be designated as indicated in table 2.	Non-ORV areas would be designated as indicated in table 2.	Non-ORV areas would be designated as indicated in table 2.	Non-ORV areas would be designated as indicated in table 2.

TABLE 1. ORV ROUTES AND AREAS

Resource Education	Information is available to the general public through the park website, newspaper, information brochures, and interpretive programs. However, there is no targeted education program for beach users.	Same as alternative A, except: - Night-driving permit has basic education component. - Protected species information is available at ORV access points. - There is a 24-hour citizen phone line. - The beach access brochure is to be redesigned.	General information would remain available as described in alternative A. There would be a new required education program for ORV users, as described under ORV Permit Issuance Requirements.	Same as alternative C.	Same as alternative C.	Same as alternative C, plus: - There would be a new voluntary resource education program targeted toward non-ORV beach users.
Temporary ORV Use of Non-ORV Areas	N/A	N/A	Under the terms and conditions of a special use permit, the Superintendent could authorize the following: - Temporary emergency ORV use of non-ORV areas if needed to bypass sections of NC-12 that are closed for repairs. - Temporary non-emergency ORV use of non-ORV areas traditionally used for fishing tournaments that were established prior to Jan 1, 2009. - Temporary non-emergency ORV use of non-ORV areas to transport mobility-impaired individuals to join their family or friends on an open beach that is otherwise closed to ORVs. ORV use would be limited to the shortest, most direct distance between the nearest designated ORV route and the location of the gathering.  Temporary non-emergency use by <i>nonessential</i> vehicles would not be permitted within resource closures.	Same as alternative A.	Same as alternative C.	Same as alternative C.
Parking Areas for Non-ORV Access	Parking is currently provided in 32 park-maintained parking lots throughout the Seashore, totaling approx. 1,000 spaces.	Same as alternative A.	New or expanded parking would be established to support pedestrian access to non-ORV areas as identified in table 2.  NPS would use environmentally appropriate design standards to minimize stormwater runoff and other resource impacts. Toilet facilities and trash receptacles would be provided at high-use locations.	Same as alternative C.	Same as alternative C.	Same as alternative C.

TABLE 1. ORV ROUTES AND AREAS

<p>Alternative Transportation</p>	<p>None</p>	<p>Same as alternative A.</p>	<p>NPS would consider applications for commercial use authorization to offer beach shuttle services.</p>	<p>Same as alternative A.</p>	<p>Same as alternative C, plus:</p> <ul style="list-style-type: none"> <li>- NPS would designate and post boat landing zones (drop-off) near the inlet at Bodie Island Spit and South Point Ocracoke that could be used to drop off pedestrians if/when the inlet shoreline is not otherwise closed to protect park resources. NPS would encourage a commercial water shuttle service for this purpose; however, the drop-off points would be subject to closure on short notice if needed to protect park resources.</li> </ul>	<p>Same as alternative C.</p>
<p>Camping and Nighttime Beach Use</p>	<p>Per 36 CFR 2.10: Camping* is prohibited except in designated areas. In the Superintendent's Compendium, camping is prohibited on Seashore beaches. In areas open to ORV use, ORVs are allowed on the beach overnight if someone associated with the vehicle is actively fishing.</p> <p>*Camping is defined in 36 CFR 1.4 as the erecting of a tent or shelter of natural or synthetic material, preparing a sleeping bag or other bedding material for use, parking of a motor vehicle, motor home, or trailer, or mooring of a vessel for the apparent purpose of overnight occupancy.</p>	<p>Same as alternative A, plus:</p> <ul style="list-style-type: none"> <li>- Nighttime use of ORVs is seasonally restricted as described under the Hours of Allowable ORV Operation section.</li> </ul>	<p>Same as alternative B, plus:</p> <ul style="list-style-type: none"> <li>- Unattended beach equipment (e.g., chairs, canopies, volleyball nets, water sports gear) is prohibited on the Seashore at night. Turtle patrol and law enforcement will tag equipment found at night. Owners have 24 hours to remove equipment before it is removed by NPS staff.</li> <li>- This policy would be subject to periodic review.</li> </ul>	<p>Same as alternative C.</p>	<p>Same as alternative C, plus:</p> <p>SCV camping would be authorized as follows:</p> <ul style="list-style-type: none"> <li>- The following campgrounds and use limits would be designated for SCV camping from Nov 1 to Mar 31: Oregon Inlet—100 spaces; Cape Point—100 spaces; and Ocracoke—50 spaces. Use limits would be established in the Superintendent's Compendium and subject to periodic review.</li> <li>- SCV permits would be required, in addition to an ORV permit for beach driving, and would be available in weekly or seasonal increments.</li> <li>- There would be a 7-consecutive-day- / 6-night-stay limit during any one visit and a limit of one visit per month.</li> <li>- SCVs would be required to have a self-contained toilet and a separate, permanently installed holding tank for both black and grey water, each with a min. capacity of 3 days' waste.</li> <li>- Holding tanks must be dumped at an appropriate facility every 72 hours during a visit.</li> </ul> <p><i>Between Mayland Sept 16,</i></p> <p>ORV park-and-stay overnight would be allowed with a permit at selected spits and points, if not otherwise closed to protect resources. The following park-and-stay use limits would be established: Inlet spits—15 vehicles each; Cape Point and South Point Ocracoke—25 vehicles each.</p> <p>Park-and-stay use limits and hours of night-driving prohibition would be established in the Superintendent's Compendium and subject to periodic review.</p>	<p>Same as alternative C.</p>



TABLE 1. ORV ROUTES AND AREAS

Beach Fires	<p>Per 36 CFR 2.13: Fires are prohibited except in designated areas. In the Superintendent's Compendium, beach fires are authorized year-round, with the following restrictions:</p> <ul style="list-style-type: none"> <li>- Fires are prohibited from midnight to 6:00 a.m. year-round.</li> <li>- Fires are prohibited within resource closures.</li> </ul>	Same as alternative A.	<p>Same as alternative B, plus:</p> <ul style="list-style-type: none"> <li>- A non-fee educational fire permit is required for any beach fire year-round.</li> <li>- This policy would be subject to periodic review.</li> </ul>	Same as alternative B.	Same as alternative C.	<p>Same as alternative C, except:</p> <ul style="list-style-type: none"> <li>- May 1 to Nov 15: Beach fires would be permitted only in front of Coquina Beach, Rodanthe, Waves, Salvo, Avon, Buxton, Frisco, Hatteras Village, and Ocracoke Day-Use Area during the sea turtle nesting season.</li> </ul>
Pets	<p>Per 36 CFR 2.15: The following are prohibited:</p> <ul style="list-style-type: none"> <li>- Possessing a pet in an area closed to the possession of pets by the Superintendent.</li> <li>- Failing to crate, cage, restrain on a leash which shall not exceed 6 ft in length, or otherwise physically confine a pet at all times.</li> </ul> <p>In the Superintendent's Compendium, pets are prohibited in all resource closures. Pets are prohibited, even if on a leash, from the landward side of the posts delineating the ORV corridor at the spits (Bodie, Hatteras, Ocracoke) and Cape Point.</p>	Same as alternative A.	<p>Same as alternative A, except :</p> <ul style="list-style-type: none"> <li>- Pets would be prohibited within all designated Breeding Shorebird Species Management Areas (SMAs) from Mar 15 to Oct 15.</li> <li>- Pets would be prohibited within all Nonbreeding Shorebird SMAs that are otherwise open to recreational use.</li> <li>- Pets would be prohibited in ORV access corridors during the pre-nesting period.</li> <li>- This policy would be subject to periodic review.</li> </ul>	<p>Same as alternative C, except :</p> <ul style="list-style-type: none"> <li>- Pets would be prohibited in all designated SMAs year-round.</li> <li>- This policy would not be subject to periodic review.</li> </ul>	<p>Same as alternative C, except:</p> <ul style="list-style-type: none"> <li>- Pets would be prohibited within all designated Breeding Shorebird SMAs, including pass-through zones, from Mar 15 to Aug 31.</li> </ul>	<p>Same as alternative C, except :</p> <ul style="list-style-type: none"> <li>- Pets would be prohibited in all designated Breeding Shorebird SMAs from Mar 15 to Jul 31, or 2 weeks after all shorebird breeding activities have ceased or all chicks in the area have fledged, whichever comes later.</li> </ul>
Horses	<p>Per 36 CFR 2.16: The use of horses or pack animals is prohibited outside of trails, routes, or areas designated for their use.</p> <p>In the Superintendent's Compendium, horse use is prohibited in resource closures and on lifeguarded beaches, and is allowed only in the following locations:</p> <ul style="list-style-type: none"> <li>- On the beach seaward of the existing dunes and only on beaches open to ORV use.</li> <li>- Along road shoulders or across paved roads where travel is necessary to cross to and from beach access routes.</li> <li>- On trails or in areas as authorized by commercial-use authorization or special-use permit.</li> </ul>	Same as alternative A.	<p>Same as alternative A, except::</p> <ul style="list-style-type: none"> <li>- Horse use would be allowed in some non-ORV areas, except for SMAs, and on a limited number of trails to be designated in the Superintendent's Compendium <b>after</b> ORV routes are determined.</li> <li>- Horse use would be allowed on village beaches from Sep 16 to May 14.</li> <li>- This policy would be subject to periodic review.</li> </ul>	Same as alternative A.	Same as alternative C.	<p>Same as alternative C, except:</p> <ul style="list-style-type: none"> <li>- Horse use would be authorized in any upper beach ORV corridor(s), if such is provided at "floating" Nonbreeding Shorebird SMAs as described in the final section of this table.</li> </ul>

TABLE 1. ORV ROUTES AND AREAS

Commercial Fishing Vehicles	Commercial fishing at the Seashore is authorized and managed under a special-use permit in accordance with 36 CFR 7.58(b). Commercial fishing vehicles are considered <i>non-essential vehicles</i> and are not authorized to enter resource closures. Permitted commercial fishermen are authorized to enter other areas that are closed to recreational ORV use, including seasonal closures and safety closures, but are not authorized to enter lifeguarded beaches.	Same as alternative A, plus: - Commercial fishing vehicles are subject to the night-driving restriction in the consent decree.	Same as alternative A, except: - Commercial fishermen would not be required to obtain an ORV permit that would be required for recreational ORVs. - Commercial fishing vehicles would be authorized to enter non-ORV areas, except for full resource closures and lifeguarded beaches. - In areas outside of existing resource closures, the Superintendent would be able to modify the night-driving restrictions subject to terms and conditions of the fishing permit, for commercial fishermen who are actively engaged in authorized commercial fishing activity and can produce fish house receipts from the past 30 days. Such modifications would be subject to periodic review. <i>by +/- 2 hrs.</i>	<i>None of</i> Same as alternative C.	Same as alternative C.	Same as alternative C.
Periodic Review	None	Same as alternative A.	Every 5 years NPS would conduct a systematic review of the ORV management measures that are identified in this plan as being subject to Periodic Review. This could result in changes to those management actions in order to improve effectiveness.	Same as alternative A.	Same as alternative C.	Same as alternative C.
Staffing and Material Costs	Protection: \$1,162,000 <del>Administration:</del> <i>Management</i> \$41,750 Resource Mgmt: \$474,750 Facilities: \$58,300 Interpretation: \$63,850 <b>Total: \$1,800,650</b>	Protection: \$1,424,300 <del>Administration:</del> <i>Management</i> \$80,250 Resource Mgmt: \$829,250 Facilities: \$171,300 Interpretation: \$186,850 <b>Total: \$2,691,950</b>	Protection: \$1,632,700 <del>Administration:</del> <i>Management</i> \$99,500 Resource Mgmt: \$696,250 Facilities: \$186,500 Interpretation: \$186,850 <b>Total: \$2,801,800</b>	Protection: \$1,694,300 <del>Administration:</del> <i>Management</i> \$99,500 Resource Mgmt: \$637,750 Facilities: \$171,300 Interpretation: \$186,850 <b>Total: \$2,789,700</b>	Protection: \$2,073,100 <del>Administration:</del> <i>Management</i> \$99,500 Resource Mgmt: \$905,450 Facilities: \$194,100 Interpretation: \$186,850 <b>Total: \$3,459,000</b>	Protection: \$1,956,100 <del>Administration:</del> <i>Management</i> \$99,500 Resource Mgmt: \$836,950 Facilities: \$194,100 Interpretation: \$186,850 <b>Total: \$3,273,500</b>
Resource Protection Measures						

Confirm Terminology for "Administration" ?

Management/Administration ?

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TABLE 1. ORV ROUTES AND AREAS

<p>Breeding Season Measures</p>	<p>Shorebird pre-nesting areas and ORV/pedestrian buffers for observed shorebird breeding behavior, sea turtle nests, and seabeach amaranth are established as described in the interim strategy FONSI.</p>	<p>Shorebird pre-nesting areas and ORV/pedestrian buffers for observed shorebird breeding behavior, sea turtle nests, and seabeach amaranth are established as described in the interim strategy FONSI, as modified by the consent decree.</p>	<p>Breeding Shorebird SMAs would be designated. Shorebird pre-nesting areas and ORV/pedestrian buffers for observed shorebird breeding behavior, sea turtle nests, and seabeach amaranth would be established as described in table 5 (Species Management).  SM1 measures would be implemented at all locations (including those outside of SMAs), except at Bodie Island Spit, Cape Point, and South Point Ocracoke, where SM2 measures would be implemented.  Designated SMAs would be subject to periodic review.</p>	<p>Same as alternative C, except: - SM1 would be implemented at all locations</p>	<p>Same as alternative C, except: - SM2 areas at Bodie Island Spit, Cape Point, and South Point Ocracoke would include an ORV pass-through zone, using standard buffer distances as described in table 5.</p>	<p>Same as alternative C, except: - SM2 area at Bodie Island Spit would include a pedestrian access corridor, and SM2 areas at Cape Point and South Point Ocracoke would include an ORV access corridor, using standard buffer distances as described in table 5.</p>
<p>Nonbreeding Season Measures</p>	<p>As described in the interim strategy FONSI: Suitable interior habitats at spits and at Cape Point are closed year-round to all recreational users to provide for resting and foraging for shorebirds. 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 and are determined based on annual habitat assessment and monitoring.</p>	<p>Same as alternative A.</p>	<p>Nonbreeding Shorebird SMAs would be established at the points and spits based on an annual habitat assessment. In addition, year-round non-ORV areas along the ocean shoreline outside of the villages, as identified in table 2, would be managed as Nonbreeding Shorebird SMAs with recreational activity restrictions as described in table 5.  Designated SMAs would be subject to periodic review.</p>	<p>Same as alternative C.</p>	<p>Same as alternative C.</p>	<p>Same as alternative C, plus the following areas would be managed as "floating" non-ORV areas during the nonbreeding season (i.e., as soon as breeding season closures are reduced or removed):  - "Floating" 1.5 mi of ocean shoreline habitat between ramp 23 (Salvo) and ramp 34 (Avon) would be non-ORV (in addition to ramps 27-30), based on habitat assessment and nonbreeding surveys.  - "Floating" 1.5 mi of ocean shoreline on South Beach between ramp 45 and ramp 49, based on habitat assessment and nonbreeding surveys. ORV access to be provided via interdunal road or upper beach route (where 50 m buffer can be maintained).  - "Floating" 1.0 mi of ocean shoreline between ramp 72 and inlet, based on annual habitat assessment and nonbreeding surveys. Upper-beach ORV corridor will be used to bypass the 1.0 mi shoreline area.  The "floating" Nonbreeding Shorebird SMAs would be monitored as described in table 5 and would be subject to periodic review.</p>

\*This matrix is designed to display differences among alternatives; therefore, actions common to all alternatives are not included in it. Actions common to all alternatives can be viewed on pp. xx-xx.

\*\* Please refer to table 2, ORV Routes and Areas, to determine when routes and areas are open to ORV use.

Add Vegetation

ORV use is generally restricted to minimize impacts to vegetation.

Same as alternative A

ORV use will be restricted or prohibited in locations where ORV use is causing unacceptable impacts to vegetation.

Same as C ✓

Same as C

Same as C

TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

Definitions

**Breeding behavior:** Shorebird behavior that includes, but is not limited to, territorial behavior, courtship, mating, scraping, confirmed scrapes, and other breeding or nest-building activities.

**Human disturbance:** Any human activity that changes the contemporaneous behavior of one or more individuals of breeding, nesting, foraging, or roosting colonial waterbirds, piping plover, Wilson's plover, or American oystercatcher. Behaviors indicating disturbance include defensive displays; alarm calls; flushing or leaving a nest or feeding area; and diving or mobbing pedestrians, dogs, or vehicles.

**Periodic review:** A systematic review of data, habitat conditions, and other information to be conducted by NPS every 5 years, after a major hurricane, or after a significant change in protected species status (e.g., listing or de-listing). In order to evaluate the effectiveness of management actions in making progress toward the accomplishment of stated objectives, Periodic review could result in changes to the management actions in order to improve effectiveness.

**Pre-nesting closure:** A kind of resource closure in which an area of suitable habitat is proactively closed to ORVs and pedestrians at the start of the shorebird breeding season to provide undisturbed habitat for bird breeding activities to occur.

**Research area:** Area of suitable habitat set aside on a temporary or long-term basis (such as a study site or control plot) as part of a research project authorized by NPS under a research permit.

**Resource closure:** Any area posted as closed to all public entry in order to protect wildlife, such as breeding and foraging shorebirds and bird and turtle nests, or vegetation from human disturbance.

**Species Management Area (SMA):** Area of suitable habitat that has had concentrated and recurring use by multiple individuals and/or multiple species of protected shorebirds during the breeding season or nonbreeding season, or concentrations of seabeach amaranth specimens, in more than 1 (i.e., 2 or more) of the past 5 years and is managed to reduce or minimize human disturbance. Currently designated SMAs are listed at the end of this table. SMAs will be re-evaluated and re-designated every 5 years, or after major hurricanes, as part of the periodic review process described at the end of this table.

**Breeding Shorebird SMA:** Area of suitable breeding habitat that has had multiple nests of individuals and/or multiple species of protected shorebirds, or concentrations of seabeach amaranth specimens, in more than 1 (i.e., 2 or more) of the past 5 years and is managed to minimize human disturbance during the breeding season. Focal species for Breeding Shorebird SMAs include piping plover, Wilson's plover, American oystercatcher, least tern, common tern, gull-billed tern, and black skimmer; however, there will be ongoing evaluation of the breeding shorebird species addressed by this plan, as part of the periodic review process described at the end of this table. The following areas have been designated as Breeding Shorebird SMAs:

- o Bodie Island Spit: 0.2 miles south of ramp 4 to inlet
- o Ramp 27 to ramp 30
- o New ramp 32.5 to ramp 34
- o Approximately 1.7 miles south of ramp 38 to north boundary of Buxton
- o Cape Point: 0.2 miles south of ramp 44 to ramp 45
- o South Beach: Ramp 45 to new ramp 47
- o Hatteras Inlet Spit: Ocean shoreline south of Pole Road to soundside of inlet
- o North Ocracoke Spit: Inlet to 0.25 miles northeast of ramp 59
- o 0.5 miles southwest of ramp 68 to 1.2 miles north of ramp 70
- o South Point Ocracoke: 0.5 miles southwest of ramp 72 to inlet

**Nonbreeding Shorebird SMA:** Area of suitable nonbreeding habitat that has had concentrated foraging by migrating/wintering shorebirds in

#10  
#7  
clewts  
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10/10/09

TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

	<p>more than 1 (i.e., 2 or more) of the past 5 years and is managed to reduce human disturbance during the nonbreeding season. This may include portions of breeding SMAs that provide suitable nonbreeding habitat during periods of overlap between the breeding and migrating season and designated non-ORV areas that are set aside to provide pedestrians with the opportunity for a natural beach experience.</p> <p><b>Species Management 1 (SM1):</b> An approach to shorebird protection during the breeding season that will use larger, longer-lasting buffers with less monitoring to reduce the need for more frequent monitoring and fencing changes.</p> <p><b>Species Management 2 (SM2):</b> An approach to shorebird protection during the breeding season that will use smaller buffers and will require more frequent monitoring and fencing changes when an ORV or pedestrian access corridor is open at designated locations during the breeding season.</p>		
<p><b>Management Activity</b></p>	<p><b>Shorebirds</b></p> <p><i>Survey of sites for ORV</i></p>		
	<p><b>Piping Plover</b></p>	<p><b>American Oystercatcher and Wilson's Plover</b></p>	<p><b>Colonial Waterbirds, including Least Terns, Common Terns, Gull-Billed Terns, and Black Skimmers</b></p>
<p><b>Pre-Nesting Surveys</b></p>	<p>By Mar 1: NPS staff will evaluate all potential breeding habitat and recommend piping plover pre-nesting closures based on that evaluation.</p> <p>Mar 15 to Jul 15: Pre-nesting closures will be surveyed three times per week. Outside of pre-nesting closures, suitable habitat will be surveyed twice per week, increasing to three times per week once birds are present.</p>	<p>Mar 15 to Jul 15: Pre-nesting closures will be surveyed three times per week. Outside of pre-nesting closures, suitable habitat will be surveyed twice per week, increasing to three times per week once breeding pairs are present.</p>	<p>May 1 to Jul 15: Pre-nesting closures will be surveyed three times per week. Outside of pre-nesting closures, suitable habitat will be surveyed twice per week, increasing to three times per week once breeding pairs are present.</p>
<p><b>Pre-Nesting Closures</b></p>	<p><b>All species:</b> All designated Breeding Shorebird SMAs will be posted as pre-nesting closures using symbolic fencing by <b>Mar 15</b> at sites involving piping plover, Wilson's plover, and/or American oystercatcher; and by <b>Apr 15</b> at sites involving only colonial waterbirds. NPS will determine the configuration of specific pre-nesting closures based on an annual habitat assessment. Pre-nesting closures will be adjusted to the configuration of the Nonbreeding Shorebird SMAs for the respective sites (as described later in this table) if no breeding activity is seen in the area by <b>Jul 31</b>, or 2 weeks after all chicks have fledged, whichever comes later. Pre-nesting closures will not be modified in cases where the beach erodes into the buffered habitat. ORVs, pedestrians, and pets are prohibited within all resource closures, including pre-nesting closures.</p> <p><b>SM1:</b> SMAs designated as SM1 would not allow ORV or pedestrian access when pre-nesting closures are in effect.</p> <p><b>SM2:</b> The Bodie Island Spit, Cape Point, and South Point Ocracoke SMAs are designated as SM2 in action alternatives C, E, and F. Once pre-nesting closures are implemented at these sites, a narrow ORV access corridor (where ORV use is permitted) or a pedestrian access corridor (where ORV use is not permitted) would be established. Upon the first observation of breeding activity, the standard buffers (please refer to table 6, Shorebird / Waterbird Buffer Summary) will apply, which depending upon the circumstances</p>		

TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

	<p>may close the access corridor. The Bodie Island Spit access corridor would follow the ocean shoreline to the inlet. The Cape Point access corridor would follow the ocean shoreline from ramp 44 south to the point, then west approximately 0.2 mi along the ocean shoreline. The South Point Ocracoke access corridor would follow the ocean shoreline south from ramp 72 to the inlet. Exact configuration of the corridor would be determined by NPS staff based on the annual habitat assessment. The ORV access corridor at SM2 sites will generally be no more than 50 m wide above the high tide line (alternative E may include a designated pass-through zone where no stopping or recreation would be permitted in order to minimize disturbance). An SM2 pedestrian access corridor would generally be below the high tide line and would in no case be more than 10 m above the high tide line. Pets, as well as kite flying, ball and Frisbee tossing, and similar activities, will be prohibited in the access corridors or pass-through zones (in alternative E only) while the pre-nesting closure is in effect.</p>	
<p><b>Courtship/Mating Surveys:</b></p> <p>Pre-nesting closures will be surveyed three times per week. Outside of pre-nesting closures, suitable habitat will be surveyed three times per week once breeding pairs are present.</p>		
<p><b>Courtship/Mating Buffers:</b></p> <p><b>SM1/SM2:</b> If breeding activity is observed outside of an existing closure, a buffer will be established or expanded to ensure a 75 m buffer for the observed birds. Buffers will be increased in 50 m increments if human disturbance* occurs. Outside of pre-nesting areas, closures will be removed if no breeding activity is observed for a 2-week period, or when associated breeding activity has concluded.</p> <p>*Buffers are not expanded for incidental disturbance associated with required NPS protected species monitoring.</p>	<p><b>SM1:</b> If breeding activity is observed outside of an existing closure, a buffer will be established or expanded to ensure a 300 m buffer for the observed birds.</p> <p><b>SM2:</b> If breeding activity is observed outside of an existing closure, a buffer will be established or expanded to ensure a 150 m buffer for the observed birds.</p> <p>Buffers will be increased in 50 m increments if human disturbance occurs.</p> <p><b>All:</b> Outside of pre-nesting areas, closures will be removed if no breeding activity is observed for a 2-week period, or when associated breeding activity has concluded.</p>	<p><b>SM1:</b> If scraping is observed outside an existing closure, a buffer will be established or expanded to ensure a 300 m buffer for the observed birds.</p> <p><b>SM2:</b> If scraping is observed outside a resource closure, a 100 m buffer will be established around the scrape location for least terns (if only least terns are present), or a 200 m buffer when other colonial waterbird species are present. Buffers will be increased in 50 m increments if human disturbance occurs.</p> <p><b>All:</b> Buffer establishment will be based on the location of scrape(s) and not location of copulation or "fish flashing."</p> <p>Outside of pre-nesting areas, buffers will be removed if no breeding activity is observed for a 2-week period, or when associated breeding activity has concluded.</p> <p>Colonies will be surveyed on foot during the peak nesting period, which generally is during the last week of May and the first week of June, but could be later, especially for black skimmers.</p> <p><b>SM1:</b> Colonies will be observed at least three times per week from a distance that does not disturb the birds. For incubating birds that cannot be observed from a distance, colonies</p>
<p><b>Nest Surveys:</b></p> <p>A walk-through will be conducted to look for nests every 3 days. Once nests are found, nests will be observed daily from a distance that does not disturb the birds, based on professional judgment. Nests will be approached once per week to observe and record</p>	<p>A walk-through will be conducted to look for nests when observations suggest a nest is present.</p> <p><b>SM1:</b> Nests will be observed at least three times per week from a distance that does not disturb the birds, based on professional judgment. For incubating birds that cannot be observed from a distance, nests will</p>	

All Species: Add an "All Species" section to "Courtship/Mating" Buffers" section, effect change wording from "nesting" to "courtship/mating" where needed, and delete non-applicable sentences.

3

**TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES**

	<p>data.</p>	<p>be checked on a weekly basis (or as staff is available).  <b>SM2:</b> Nests will be observed daily from a distance that does not disturb the birds, based on professional judgment. For incubating birds that cannot be observed from a distance, nests will be checked every 3 days.</p>	<p>will be checked on a weekly basis.  <b>SM2:</b> Nests will be observed daily from a distance that does not disturb the birds, based on professional judgment. For incubating birds that cannot be observed from a distance, colonies will be checked every 3 days.</p>
<p><b>Nest Buffers:</b></p>	<p><b>All species:</b> The park retains the discretion to expand nest buffers under SM1 and SM2 depending on staffing and bird behavior. In unprotected areas, a buffer will be established immediately when a nest with egg(s) is found. Prior to hatching, vehicles may pass by such areas within designated ORV access corridors that have been established along the outside edge of nesting habitat, provided that buffers adequate to prevent human disturbance are maintained. When nests or chicks occur in the immediate vicinity of paved roads, parking lots, campgrounds, buildings, and other facilities, NPS retains the discretion to provide resource protection to the maximum extent possible while still allowing those facilities to remain operational. NPS shall not reduce buffers to accommodate ORV ramp access. Buffers will remain in place for 2 weeks after a nest is lost to determine if pair will re-nest. Outside of pre-nesting areas, buffers will be removed if no breeding activity is seen in the area for 2 weeks, or 2 weeks after all chicks have fledged, whichever comes later.</p> <p><b>SM1 and SM2:</b> A 75 m buffer/closure will be established around nest(s). Buffers will be increased in 50 m increments if human disturbance occurs.          If a buffer falls within the intertidal zone, a full-beach closure will result.</p>	<p><b>SM1:</b> A 300 m buffer/closure will be established around nest(s).  <b>SM2:</b> A 150 m buffer/closure will be established around nest(s). Buffers will be increased in 50 m increments if human disturbance occurs.          If a buffer falls within the intertidal zone, a full-beach closure will result.          For nests that occur inside a pre-nesting closure <b>and</b> require a buffer expansion of the pre-nesting area, the buffer expansion may be removed to the original pre-nesting closure after 2 weeks with no breeding activity if the nest is lost to overwash or predation.</p>	<p><b>SM1:</b> Buffers will be the same as for courtship and mating: 300 m.  <b>SM2:</b> A 100 m buffer/closure will be established around a least tern nest or colony. A 200 m buffer/closure will be established around the nest or colony if any common terns, gull-billed terns, or black skimmers are present. Buffers will be increased in 50 m increments if human disturbance occurs.          If a buffer falls within the intertidal zone, a full-beach closure will result.          For a colony that occurs inside a pre-nesting closure <b>and</b> requires a buffer expansion of the pre-nesting area, the buffer expansion may be removed after 2 weeks with no breeding activity if the nest is lost to overwash or predation.</p>
<p><b>Adult Foraging Surveys and Buffer:</b></p>	<p>Suitable breeding habitat will be surveyed three times per week to monitor for adults with an associated scrape or nest territory foraging outside of an existing</p>	<p>No additional buffers/closures.</p>	<p>No additional buffers/closures.</p>

TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

<p><b>Unfledged Chicks Surveys:</b></p>	<p>closure. If birds are observed foraging outside an existing closure, the site will be surveyed daily. If birds are observed foraging outside of a closure on two consecutive surveys, the buffer will be established or expanded using flexible increments based on observed bird behavior to include the foraging site. These closures are intended to provide foraging opportunities close to breeding sites. The closure will be removed if no foraging is observed for a 2-week period during the breeding season, or when associated breeding activity has concluded.</p>	<p><b>SM1:</b> Brood will be observed every other day. <b>SM2:</b> Brood will be observed once daily for at least 1/2 hour. <b>All:</b> Observations will end once the chicks have fledged. American oystercatcher chicks are considered fledged if they have been observed to be proficient in flying or observed in sustained flight of at least 30 m. Wilson's plover chicks are considered fledged if they are observed in sustained flight of at least 15 m.</p>	<p><b>SM1:</b> Colony will be observed every other day. <b>SM2:</b> Colony will be observed daily. <b>All:</b> Colonies will be surveyed on foot during the peak hatching period, which should fall 21 days after initial nest observations. A follow-up survey (perimeter count) should be conducted during the peak fledge, which should fall 20 days after hatch counts. Observations will end after no unfledged chicks have been observed on three consecutive surveys.</p> <p><i>is realistic given birds?</i></p>
<p><b>Unfledged Chick Buffers:</b></p>	<p><b>SM1:</b> A minimum 1,000 m buffer will be established on either side of the nest when unfledged chicks are present. <b>SM2:</b> A 1,000 m ORV buffer and, where <del>the</del> disturbance can be minimized, a 300 m pedestrian buffer will be established on either</p>	<p><b>SM1:</b> A 300 m buffer will be established around the nest when unfledged chicks are present. If chicks move outside of the buffer, it will be adjusted to include an additional 200 m from the chicks' location. Closures will be removed 2 weeks after fledging. <b>SM2:</b> A 200 m buffer will be established</p>	<p><b>SM1:</b> A 300 m buffer will be established around nests or colony. If chicks move outside of the buffer, it will be adjusted to provide a standard buffer of 200 m from the chicks' location. <b>SM2:</b> A 200 m buffer will be established around the chicks' location. Buffers will be adjusted as needed when chicks are mobile.</p>



TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

	<p>side of the nest when unfledged chicks are present. Buffers move with chicks.</p> <p><b>All:</b> The buffer should extend 1,000 m for ORVs (or 300 m for pedestrians under SM2) on each side of a line drawn through the nest site and perpendicular to the long axis of the beach. The resulting area (2,000 m wide for ORVs or 600 m wide for pedestrians) of protected habitat for piping plover chicks would extend from the oceanside low water line to the soundside low water line or to the farthest extent of dune habitat if no soundside intertidal habitat exists.</p>	<p>around the unfledged chicks' location. Foraging and roosting habitat will be included from the ocean (low water line) to the dune (or sound shoreline, if accessible). Buffers will be adjusted/increased as needed when chicks are mobile. Buffers move with chicks.</p> <p>Buffers will remain until Wilson's plover chicks have fledged or 2 weeks after American oystercatcher chicks have fledged (observed flight of 30 meters); a pedestrian corridor may be established prior to the end of the 2-week waiting period for permitting access to the points and spits.</p>	
<p><b>Breeding Data Collection/Reporting</b></p>	<p>The following data will be recorded:</p> <ul style="list-style-type: none"> <li>- Date, time, location of breeding pair, courtship behavior, foraging, scrape, nest, or brood observations; identity of observer.</li> <li>- Pair, nest, and brood identification number.</li> <li>- Number, location, and status of territorial pairs, nesting pairs, nests, eggs, and chicks. GPS will be used to document nest location.</li> <li>- Status of eggs/nest and presence/behavior of adults (laying, incubating, lost, abandoned).</li> </ul>	<p>The following data will be recorded:</p> <ul style="list-style-type: none"> <li>- Date, time, and location of breeding pair, scrape, nest, or brood observations; identity of observer.</li> <li>- Pair number; color band (if applicable).</li> <li>- Number, location, and status of pairs, scrapes, nests, eggs, and chicks. Use GPS to document nest location.</li> <li>- Status of eggs/nest and presence/behavior of adults (laying, incubating, lost, abandoned, hatching, hatched).</li> <li>- Status of chicks (age, behavior, fledge status) and presence/behavior of adults.</li> </ul>	<p>The following data will be recorded:</p> <ul style="list-style-type: none"> <li>- Date, time, location, and species of nest/colony observations; identity of observer.</li> <li>- Number and location of birds, nests, chicks, and fledglings. GPS will be used to document colony location.</li> <li>- Status of colony and presence/behavior of adults (laying, incubating, lost, abandoned).</li> <li>- Status of chicks (behavior, fledge status) and presence/behavior of adults.</li> <li>- Indications of potential predators, humans, pets, or ORVs within posted areas.</li> <li>- Indications of cause of nest or chick loss, if</li> </ul>

*Pre-nesting closures*

TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

	<ul style="list-style-type: none"> <li>- hatching, hatched).</li> <li>- Status of chicks (age, behavior, fledge status) and presence/behavior of adults.</li> <li>- Indications of potential predators, humans, pets, or ORVs within posted areas.</li> <li>- Indications of cause of nest or chick loss, if apparent.</li> <li>- Reproductive rate (chicks fledged per breeding pair).</li> </ul>	<ul style="list-style-type: none"> <li>- Indications of potential predators, humans, pets, or ORVs within posted areas.</li> <li>- Indications of cause of nest or chick loss, if apparent.</li> <li>- Reproductive rate (chicks fledged per breeding pair).</li> </ul>	apparent.
<p><b>Nonbreeding Survey</b></p>	<p>NPS will monitor presence, abundance, and behavior of migrating and wintering shorebirds from July through May using the SECN protocol. Survey sites will include all Nonbreeding Shorebird SMAs. NPS will obtain data similar to International Shorebird Survey (ISS) data. The following information will be recorded: Date, time, and location of observations; identity of observer; species and number of birds observed; band combination of any banded birds; weather variables and tidal stage; habitat; behavior of the majority of birds in the flock (foraging, resting, disturbed [source will be recorded], other); site management in effect where birds are seen; and number of pedestrians, pets, ORVs and other potential disturbances.</p> <p><i>and managed to reduce disturbance of</i></p>		
<p><b>Nonbreeding Shorebird SMAs</b></p>	<p><b>All Species:</b> Nonbreeding Shorebird SMAs will be established for migrating/wintering shorebirds at various locations throughout the Seashore. Such closures will be installed no later than when breeding season closures are removed at the same locations. Pets will be prohibited within Nonbreeding Shorebird SMAs.</p> <p><i>the SMAs will be established for migrating/wintering shorebirds at various locations throughout the Seashore. Such closures will be installed no later than when breeding season closures are removed at the same locations. Pets will be prohibited within Nonbreeding Shorebird SMAs.</i></p> <p><b>Points and Spits:</b> An annual habitat assessment will be conducted after all birds have fledged from the area. Nonbreeding resource closures will be established at the points and spits based on habitat used by wintering piping plovers in more than 1 (i.e., 2 or more) of the past 5 years. The presence of birds at the beginning of the migratory season, and suitable habitat types based on the results of the annual survey. Actual locations of suitable foraging and roosting habitat may change periodically due to natural processes. Access to the inter-shorelines, where permitted, will be maintained by a corridor to be determined by NPS staff based on the annual habitat assessment.</p> <p><b>Ocean Shoreline Areas:</b> In addition to the nonbreeding resource closures at the points and spits described above, NPS will establish non-ORV areas along the ocean shoreline that will provide relatively less-disturbed foraging, resting, and roosting areas for migrating and wintering shorebirds. These may include wider sections of beach with an upper-beach ORV corridor that has a buffer of at least 50 m above the high tide line, and/or sections of beach that have been designated as non-ORV for other reasons, such as to provide pedestrians with opportunities for a natural beach experience. The following activities are generally compatible with migrating/wintering shorebird use of these areas: pedestrian access for fishing, beach walking, bird-watching, kayaking, kiteboarding, paddleboarding, photography, picnicking, sailing, shelling, stargazing, sunbathing, surfing, swimming, wildlife viewing, and windsurfing. If resource protection staff determines that any single activity or collection of activities is negatively impacting shorebird use of a specific location, NPS may implement additional restrictions on compatible activities. The location(s) of all ocean shoreline Nonbreeding Shorebird SMAs will be subject to periodic review.</p> <p><i>This may include non-ORV areas, as well as areas closed to all recreational use,</i></p> <p><i>recreational</i></p> <p><i>which is prohibited</i></p>		

TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

Adaptive Management Initiatives	<p>NPS would take an adaptive management approach to the species management program in order to evaluate the effectiveness and improve the measures identified above. The following adaptive management initiatives related to shorebirds or shorebird habitat have been identified:</p> <ul style="list-style-type: none"> <li>- <b>Piping plover chick fledge rate:</b> An adaptive management study will be developed to evaluate the short-term performance target of 1.0 chick fledged per breeding pair, as well as the 1.5 chicks fledged per pair productivity rate identified in the recovery plan, to determine what productivity rate is realistically attainable and would provide for a growing population at the Seashore over the long term. If the actual productivity rate is not sufficient to achieve the desired future conditions for piping plover, it will be determined what management actions (e.g., frequency of monitoring; size or timing of buffers) need to be changed in order to achieve the desired results.</li> <li>- <b>Piping plover chick buffer distance:</b> As stated in the piping plover recovery plan, where several years of data document that piping plovers on a particular site feed in only certain habitat types, USFWS may provide written concurrence that vehicles pose no danger to plovers in other specified habitats on that site. An adaptive management study will be developed to evaluate whether a reduced ORV or pedestrian buffer distance (i.e., less than that stated in this plan) after a certain time period, such as 2 weeks after chicks have hatched, would be adequate to prevent disturbance of piping plover chicks by ORVs and/or pedestrians using adjacent areas during daylight hours.</li> <li>- <b>Pass-through buffers during the incubation period:</b> An adaptive management study or studies will be developed to evaluate whether a reduced buffer distance is adequate to prevent disturbance caused by ORVs driving past piping plover, American oystercatcher, or colonial waterbird nest sites if all other recreation (e.g., pedestrians, pets) is prohibited within the reduced buffer, and to determine whether a reduced buffer is adequate to prevent disturbance caused by pedestrians walking below the high tide line past piping plover, American oystercatcher, or colonial waterbird nest sites.</li> <li>- <b>Colonial waterbird social attraction:</b> As a pilot project, an adaptive management study will be developed to evaluate the effectiveness of using colonial waterbird decoys and audio-attraction to establish or re-establish colonial waterbird colonies in suitable habitat.</li> <li>- <b>Vegetation management:</b> As a pilot project, an adaptive management study will be developed to evaluate methods for managing vegetation and improving habitat and wildlife access to available habitat in the Sapper Point dredge pond area. The applicability and potential effectiveness of such measures at other locations will be determined.</li> <li>- <b>Habitat management:</b> As a pilot project, an adaptive management study will be developed to evaluate methods of improving shorebird nesting and/or foraging habitat at one location in the Seashore by applying dredge material or by moving/manipulating sand or water at the site. The applicability and potential effectiveness of such measures at other locations will be determined.</li> <li>- <b>Enhanced predator management:</b> An adaptive management study will be developed to evaluate whether predator management actions to be implemented under the (proposed) predator control program for protected species management are effective as is, or whether enhanced measures (such as managing avian predators or ghost crabs) would be beneficial and effective, or are necessary to achieve the desired future conditions for species protection.</li> <li>- <b>Change in protected species status:</b> If a significant change were to occur in the status of protected shorebird species (e.g., listing or de-listing), as part of the periodic review process described at the end of this table there would be a systematic re-evaluation of the related species management actions identified in this plan to determine what changes in management, if any, are appropriate.</li> </ul>
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Can we realistically commit to "will" ?  
 'I will be developed' vs. 'May be developed'

**TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES**

<b>Research</b>	<p>In addition to the species management procedures outlined in this table, through the issuance of a research permit NPS may authorize qualified researchers associated with recognized academic or research institutions to conduct additional scientific research on the respective species that will add to the existing knowledge of shorebird species or improve resource protection within the Seashore. Establishment of research areas may be authorized under such a permit.</p>
<b>Implementation of Adaptive Management and Research Initiatives</b>	<p>Should adaptive management initiatives and other research provide information that NPS believes is an adequate basis for management changes, such changes would be evaluated and considered for implementation as part of the 5-year periodic review process described at the end of this table.</p>
<b>Sea Turtles</b>	
<b>Survey Time and Frequency</b>	<p>Sea turtle patrol will begin on May 1, unless leatherback nests have been reported within the state, in which case the Seashore will follow the direction of NCWRC. Patrol will continue until Sep 15, or 2 weeks after the last sea turtle nest or crawl is found, whichever is later.</p> <p>Daily surveys will be conducted by ATV/UTV and possibly ORV for crawls and nests on all beaches, generally in the morning before onset of public ORV use. Daily surveys for nests end Sep 15, or 2 weeks after the last sea turtle nest or crawl is found, whichever is later. Periodic monitoring (e.g., every 2 to 3 days) for unknown nesting and emerging hatchlings will continue, especially in areas of high visitation, from that date until Nov 15.</p> <p>Monitoring will also occur for post-hatchling washbacks during periods when there are large quantities of seaweed washed ashore or following severe storm events. Nest observations will stop when all nests have hatched or excavation indicates that unhatched nests are not viable.</p> <p>Once a light filter fence is installed, nests will be monitored daily for signs of hatchling emergence.</p>
<b>Sea Turtle Data Collection/Reporting</b>	<p>At a minimum, the NCWRC handbook will be followed and the following will be recorded:</p> <ul style="list-style-type: none"> <li>- Date, location, and species of nests and false crawls; identity of observer.</li> <li>- Whether nests need to be relocated and, if so, why and where (new physical description and GPS location), number of eggs relocated, and time of day.</li> <li>- Necessary protective measures for nests and hatchlings.</li> <li>- Information regarding any post-hatching nest excavation and analysis.</li> </ul> <p>All nests will be examined after hatching to determine productivity rates. Nests will be excavated in the evening, a minimum of 72 hours after the hatching event. In cases where hatching events or dates are unknown, nest cavities will be unearthed 80–90 days after the lay date. Any live hatchlings found during excavations will be released at dusk or after dark on the same day as excavation.</p> <p>For strandings, the following will be recorded: species, location (GPS), measurements, indications of human interactions, and disposition of animal/carcass. Samples and photos will be collected when necessary. Necropsies will be conducted when possible.</p>
<b>Nest Closures/</b>	<p>A buffer approximately 10 x 10 m will be established with symbolic fencing and signage around nest. Closure size may be modified</p>

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**TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES**

<b>Buffers</b>	<p>depending on environmental conditions at the nest site. Approximately 50–55 days into incubation, closures will be expanded to the surf line. The width of the closure will be based on the type and level of use in the area of the beach where the nest was laid:</p> <ol style="list-style-type: none"> <li>1. Vehicle-free areas with little or no pedestrian traffic—25 m wide (total).</li> <li>2. Village beaches or other areas with high levels of pedestrian and other non-ORV use—50 m wide (total).</li> <li>3. Areas with ORV traffic—105 m wide (total).</li> </ol> <p>On the landward side of the nest, the closed area will be expanded to 15 m from the nest where possible, but no less than 10 m landward from the nest. If appropriate, traffic detours behind the nest area will be established and clearly marked with signs and reflective arrows.</p> <p>Light-filtering fence will be used in a U-shaped configuration around nests nearing their hatch dates, with the open face of the U oriented toward the water, to block light pollution from the villages and vehicles operating on the beach after dark.</p> <p>Once the buffer expansion is implemented, NPS staff will use rakes or a steel mat attached to an ATV to smooth any vehicle tracks between the nest and the water, so that tracks do not impede hatchlings from reaching the water.</p> <p>If multiple nests are located near each other (within 350 ft), and have similar hatch dates (within 14 days of each other), then closures will encompass all nests in the area and will not be removed until all nests within the closure have hatched.</p>
<b>Nest Watch Program</b>	<p>A cadre of trained volunteers will be established to watch nests that have reached their hatch windows in order to monitor hatchling emergence success and success reaching the water, and to provide for the minimization of negative impacts from artificial lighting, predation, and human disturbance. Depending on the number of nests that may be ready to hatch and the availability of volunteers, it may be necessary for NPS turtle staff to prioritize which nests are watched on any particular night. Priority will be given to watching the nests that are most likely to be negatively impacted by manageable factors.</p>
<b>Nest Relocation</b>	<p>By Apr 15, areas deemed unsuitable for turtle nests (e.g., those with a high erosion rate) will be identified by Seashore staff. Maps and descriptions of these areas will be analyzed by NCWRC prior to nesting season.</p> <p>When a nest is found, designated NPS staff members will assess the need for nest relocation and follow relocation guidance identified in the NCWRC handbook.</p> <p>If it is determined that the nest will not be relocated, it will be immediately protected with symbolic fencing and signs approximately 10 x 10 m in size. Closure size may vary at the discretion of NPS staff depending on the environmental factors at a nest location.</p> <p>If a nest is threatened by an imminent storm event, NPS will consult with NCWRC to determine appropriate action.</p>
<b>Strandings</b>	<p>The Seashore will respond to sea turtle strandings in a timely manner, and will forward or report all information, pictures, and signs of human interaction to NCWRC.</p> <p>Necropsies of stranded turtles will be done when possible.</p>
<b>Light Restrictions</b>	<p>From May 1 through Nov 15:</p> <ul style="list-style-type: none"> <li>- Portable lanterns, auxiliary lights, and powered fixed lights of any kind shining for more than 5 minutes at a time would be prohibited on Seashore ocean beaches.</li> <li>- Beach fires would be allowed/restricted as described in the respective alternatives.</li> </ul>

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TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

<p><b>Night-Driving Restrictions</b></p>	<p>From May 1 to Nov 15, all non-essential vehicle use is restricted or prohibited as described in the respective alternatives.</p>
<p><b>Light Management</b></p>	<p>By May 1, 2012, turtle-friendly lighting fixtures will be installed on all Seashore structures visible from the ocean beach (except where prevented by other overriding lighting requirements, such as lighthouses, which serve as aids to navigation) and fishing piers operated by NPS concessioners.</p> <p>Educational material will be developed to inform visitors about their impact on the success of sea turtle nests.</p> <p>The Seashore will work with USFWS, NCWRC, and Dare County to encourage development of a <del>turtle-friendly lighting ordinance</del> <sup>and</sup> turtle-friendly lighting education program for villages within the Seashore on Hatteras Island.</p>
<p><b>Adaptive Management Initiatives</b></p>	<p>NPS <del>will</del> <sup>will</sup> take an adaptive management approach to the species management program in order evaluate the effectiveness of and improve the measures identified above. The following adaptive management initiatives for sea turtles have been identified:</p> <ul style="list-style-type: none"> <li>- An assessment tool will be developed to measure ambient artificial lighting along the length of the Seashore, which can be used to reassess conditions after any management actions (such as a lighting ordinance) are implemented to reduce artificial lighting. After light management actions are implemented, levels of lighting will be reassessed and impacts on sea turtle nesting success will be monitored and evaluated. If supported by the findings, NPS will work toward an incremental adjustment (i.e., increase) in nighttime ORV access to limited select locations where not in substantial conflict with turtle nesting and hatchling activity.</li> <li>- An adaptive management study will be developed to evaluate the level of human disturbance, if any, that might be caused by designating night-driving routes to select points and splits, and to develop management tools to minimize impacts to an acceptable level. If supported by the findings, NPS will work toward an incremental adjustment (i.e., increase) in nighttime ORV access to limited select locations where not in substantial conflict with turtle nesting and hatchling activity.</li> <li>- An adaptive management study will be developed to determine ways to increase the number of hatchlings that emerge and reach the water.</li> </ul>
<p><b>Research</b></p>	<p>In addition to the species management procedures outlined in this table, through the issuance of a research permit, NPS may authorize qualified researchers associated with recognized academic or research institutions to conduct additional scientific research on turtle species that will add to the existing knowledge of sea turtles or improve resource protection within the Seashore. Establishment of research areas could be authorized under such a permit.</p>
<p><b>Implementation of Adaptive Management and Research Initiatives</b></p>	<p>Should adaptive management initiatives and other research provide information that NPS believes is an adequate basis for management changes, such changes would be evaluated and considered for implementation as part of the 5-year periodic review process.</p>
<p><b>Management Activity</b></p>	<p style="text-align: center;"><b>Seabeach Amaranth</b></p>
<p><b>Survey Time and Frequency</b></p>	<p>Jul to Sep: Before removing any shorebird closures, surveys will be conducted for seabeach amaranth seedlings/plants.                  Aug: A Seashore-wide annual survey for seabeach amaranth will be conducted in all potential habitats. Some shorebird closures may not be surveyed until just prior to reopening an area to ORV traffic to minimize disturbance of nesting birds or</p>

TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES

	chicks. Observations will end when all known seabeach amaranth plants have died back.
<b>Data Collection</b>	The location of all individual plants or plant clusters will be recorded using GPS. It will be noted whether the plant is located in an area open or closed to recreational use.
<b>Buffers/Closures</b>	<p>Prior to Jun 1, suitable seabeach amaranth habitat will be identified at points and spits where plants have observed within the last 5 years and delineated with symbolic fencing if such areas are not already protected within existing shorebird resource closures.</p> <p>If a plant/seedling is found outside of an existing closure, symbolic fencing with signage will be erected creating a 10 x 10 m buffer around the plant. If plants are located next to one another, the area will be expanded to create one enclosure protecting several plants.</p> <p>If a seabeach amaranth plant is found during the survey prior to reopening a bird closure to ORV and pedestrian use, the Seashore will protect the plant as described above and reopen the portions of the bird closure where seabeach amaranth plants do not exist.</p> <p>If seabeach amaranth is not present by Sep 1, seabeach amaranth buffers will be removed. If seabeach amaranth is present, buffers will remain until after the plants have senesced, which is typically around Dec 1.</p>
<b>All Species</b>	
<b>Periodic Review</b>	A systematic review of data, annual reports, and other information would be conducted by NPS every 5 years, after a major hurricane, or if necessitated by a significant change in protected species status (e.g., listing or de-listing), in order to evaluate the effectiveness of management actions in making progress toward the accomplishment of stated objectives. Periodic review could result in changes to the management actions in order to improve effectiveness.

*Add Adaptive Management Initiatives, Research, and Implementation sections*

Table 6. Shorebird / Waterbird Buffer\*\* Summary Table

Species	Breeding Behavior/Nest Buffer	Unfledged Chicks
	<b>SM1 / SM2</b>	<b>SM1 / SM2</b>
Piping plover	75 m / 75 m	1,000 m / 1,000 m; 300m (pedestrian only)
Wilson's plover	300 m / 150 m	300 m / 200 m
American oystercatcher	300 m / 150 m	300 m / 200 m

*For SBA, use language similar to some sections for birds with*

**TABLE 5. SPECIES MANAGEMENT STRATEGIES FOR ACTION ALTERNATIVES**

Least tern	300 m / 100 m	300 m / 200 m
Other colonial waterbird species	300 m / 200 m	300 m / 200 m

\*\* Buffers apply to both ORVs and pedestrians, unless otherwise specified.