

**Blue-Sky, Megan**

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**From:** Fox, Lori  
**Sent:** Thursday, March 17, 2011 3:00 PM  
**To:** Blue-Sky, Megan  
**Subject:** FW: CAHA alts questions  
**Attachments:** CAHA ORV Rts & Areas Table.v04.01.09.FINAL\_review.doc; CAHA ORV Alts Matrix.v04.03.09a.FINAL\_review.doc; CAHA ORV Alts Narrative.v04.07.09.FINAL\_review.doc; CAHA Species Mgmt Table.v04.01.09.review.doc

Email with all of the attachments you are seeking!

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**From:** Wetmore, Doug  
**Sent:** Friday, August 07, 2009 9:11 AM  
**To:** [Sandra Hamilton@nps.gov](mailto:Sandra.Hamilton@nps.gov)  
**Cc:** Fox, Lori; Van Dyke, Nancy  
**Subject:** CAHA alts questions

Hi Sandy.

Here are our comments/concerns on the most recent alts documents that the park produced. Please feel free to call with any questions.

~Doug

**Doug Wetmore**  
Environmental Planner

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## CAHA ORV Routes &amp; Areas Table v04/01/09

		Alts A & B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
Oceanside Location	Mileage*	Designated ORV Route and Areas (X = No ORV use permitted, YR = ORV permitted Year Round) All ORV Routes and Area areas subject to temporary resource closures				
<b>Bodie Island (north to south)</b> Ramp 1 to north end of Coquina Beach	0.9	OPEN** Seasonally closed May 15 – Sept 15 (Longstanding safety closure)	ORV Route - March 15 to Oct 14 Non-ORV area - Oct 15 to March 14	X	X Expand parking at Ramp 1	X
North end of Coquina Beach to 0.5 miles south of Coquina  Relocate Ramp 2 approx. 0.5 miles south of Coquina Beach.	0.8	OPEN** Seasonally closed May 15 – Sept 15 (Longstanding safety closure) South of Ramp 2 @ Coquina Beach open seasonally.	X	X	X Expand parking at Coquina Beach	X
0.5 mile south of Coquina to 0.2 miles south of Ramp 4  Includes beach in front of Oregon Inlet Campground. If Bonner Bridge construction closes Ramp 4, construct new Ramp 3 north of campground and provide day use parking and trailhead near campground.	2.1	OPEN YR**	ORV Route YR	ORV Route YR	ORV Route YR Establish ORV <u>pass-through zone</u> on upper beach in front of campground when campground is open.	ORV Route YR
0.2 miles south of Ramp 4 to inlet to SW edge of Bait Pond (Species Management Area)	1.9	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area - March 15 to Oct 14  Area closed to ORVs from March 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 (SM 1)	ORV Route YR with limited access: March 15 to Aug 31  When pre-nesting area is established, ORV corridor <u>with pass-through zone</u> 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.  Establish pedestrian trail to inlet from new parking near campground. Trail subject to resource closures. NPS would allow water taxi service to spit from Oregon Inlet Fishing Center, subject to designated landing zone, subject to resource closures.  (SM2)	ORV Route - Aug 1 to March 14 Non-ORV area - March 15 to July 31*  *Area closed to ORVs from March 15 to July 31, or until 2 weeks after shorebird breeding ceases or all chicks have fledged, which ever 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.  Establish pedestrian trail to inlet from new parking near campground. 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 – Sept 15	X Expand parking at Ramp 23	X	ORV Route - Nov 1 to March 31 Non-ORV area - April 1 to Oct 31 Expand parking at Ramp 23	ORV Route - Sept 16 to May 14 Non-ORV area – May 15 to Sept 15 Expand parking at Ramp 23
Ramp 23 – Ramp 27	4.3	OPEN YR**	ORV Route YR	ORV Route YR	ORV Route YR Establish one new ramp with parking @ 24 or 26	ORV Route YR Establish one new ramp with parking @ 24 or 26

CAHA ORV Routes & Areas Table v04/01/09

		Alts A & B- No Action	Alternative C	Alternative D	Alternative E	Alternative F
Oceanside Location	Mileage*	Designated ORV Route and Areas (X = No ORV use permitted, YR = ORV permitted Year Round) All ORV Routes and Area areas subject to temporary resource closures				
Ramp 27 – Ramp 30 (Species Management Area)	2.2	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area - March 15 to Oct 14 (SM1)	X (SM1)	X (SM1)	X (SM1)
Ramp 30 – Ramp 32.5	2.5	OPEN YR**	ORV Route YR Establish new ramp with parking @ 32.5	ORV Route YR Establish new Ramp @ 32.5	ORV Route YR Establish new ramp with parking @ 32.5	ORV Route YR+ Establish new ramp with parking @ 32.5 *There would be 1.5 miles of "floating" non-ORV area for nonbreeding shorebirds, either here or in next segment.
Ramp 32.5 – Ramp 34 (Species Management Area)	1.8	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14 (SM1)	X (SM1)	ORV Route - Sept 1 to March 14 Non-ORV area – March 15 to August 31 (SM1)	ORV Route+ - Aug 1 to March 14 Non-ORV area – March 15 to July 31* *Area closed from March 15 to July 31, or until 2 weeks after shorebird breeding ceases or all chicks have fledged, which ever is later. +There would be 1.5 miles of "floating" non-ORV area for nonbreeding shorebirds, either here or in the above segment. (SM1)
Ramp 34 – Ramp 38 (includes Avon Village Beach)	3.9	OPEN** Seasonally closed May 15 – Sept 15	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14	X	ORV Route - Nov 1 to March 31 Non-ORV area – April 1 to Oct 31 Expand parking at Ramp 34	ORV Route - Sept 16 to May 14 Non-ORV area – May 15 to Sept 15
Ramp 38 to approx. 1.7 miles south	1.7	OPEN YR**	ORV Route YR	ORV Route YR	ORV Route YR Expand parking at Ramp 38	ORV Route YR Expand parking at Ramp 38
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 March 14 Non-ORV area – March 15 to Oct 14 (SM1)	X (SM1)	ORV Route - Sept 1 to March 14 Non-ORV area – March 15 to August 31 (SM1)	X Establish new Ramp 39 across from Haulover and new soundside parking at Kite Point. (SM1)
Buxton village beach to 0.4 mile north of Ramp 43	1.9	OPEN** Seasonally closed May 15 – Sept 15 (Longstanding safety closure)	X NPS or Dare County establish new parking at old Coast Guard Station site	X	ORV Route - Nov 1 to Mar 31 Non-ORV area – April 1 to Oct 1 NPS or Dare County Establish new ORV ramp and parking at old Coast Guard Station site	X NPS or Dare County establish new parking at old Coast Guard Station site
0.4 mile north of Ramp 43 to Ramp 43	0.4	OPEN** Subject to seasonal closure May 15 – Sept 15	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14 Expand parking at Ramp 43	X	ORV Route - Mar 15 to Aug 31 Non-ORV area – Sept 1 to March 14 Open to ORVs only when east side of Cape Point is Closed. Expand parking at Ramp 43.	ORV Route YR Expand parking at Ramp 43

Comment [dw1]: Should this be 32.5?

Comment [dw2]: Beach access reports indicate 2.8 mile closure

Comment [dw3]: 31\*?

## CAHA ORV Routes &amp; Areas Table v04/01/09

		Alts A & B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
Oceanside Location	Mileage*	Designated ORV Route and Areas (X = No ORV use permitted, YR = ORV permitted Year Round) All ORV Routes and Area areas subject to temporary resource closures				
Ramp 43 to 0.2 miles south of Ramp 44	0.6	OPEN YR**	ORV Route YR	ORV Route YR	ORV Route YR	ORV Route YR
0.2 miles south of Ramp 44 to Cape Point to approx. 0.2 miles west of the hook (Species Management Area)	1.0	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area - March 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 <u>with pass-through zone</u> 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 July 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 – Ramp 45 (Species Management Area)	1.2	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area - March 15 to Oct 14 (SM1)	X (SM1)	ORV Route - Sept 1 to March 14 Non-ORV area - March 15 to August 31 (SM1)	ORV Route - August 1 to March 14 Non-ORV area - March 15 to July 31 (SM1)
Ramp 45 to (new) Ramp 47 (Species Management Area)	1.7	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14 Extend interdunal road & establish new Ramp 47 (SM1)	X (SM1)	ORV Route - Sept 1 to March 14 Non-ORV area – March 15 to August 31 Extend interdunal road & establish new Ramp 47 (SM1)	ORV Route <sup>+</sup> - August 1 to March 14 Non-ORV area - March 15 to July 31 Extend interdunal road & establish new Ramp 47. <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 Extend interdunal road to Ramp 49 and establish new Ramp 48	ORV Route YR Extend interdunal road to Ramp 49 and establish new Ramp 48	ORV Route YR Establish ORV <u>pass-through zone</u> on upper beach in front of campground (or by-pass beach in front of campground via new interdunal road) when campground is open. Extend interdunal road west of new Ramp 47 to Ramp 49 and establish new Ramp 48	ORV Route YR <sup>+</sup> Extend interdunal road west of new Ramp 47 to Ramp 49 and establish new Ramp 48. <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 – Sept 15 (Longstanding safety closure)	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14	X	X Expand parking at Day Use Area	ORV Route - Dec 1 to Feb 28 Non-ORV area – March 1 to Nov 30
Sandy Bay / Frisco Day Use Area (west Frisco boundary to east Hatteras Village boundary)	1.4	OPEN** Seasonally closed May 15 – Sept 15 (Longstanding safety closure)	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14	X	X	X

**CAHA ORV Routes & Areas Table v04/01/09**

		Alts A & B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
Oceanside Location	Mileage*	Designated ORV Route and Areas (X = No ORV use permitted, YR = ORV permitted Year Round) All ORV Routes and Area areas subject to temporary resource closures				
Hatteras Village Beach (east boundary to Ramp 55)	2.2	OPEN** Seasonally closed May 15 – Sept 15 (Longstanding safety closure)	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14	X	X	ORV Route - Dec 1 to Feb 28 Non-ORV area – March 1 to Nov 30
Ramp 55 along ocean beach to 0.2 miles SW of Bone Road	1.8	OPEN YR**	ORV Route YR Expand parking at Ramp 55	ORV Route YR	ORV Route YR Expand parking 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, re-route Pole Road 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 access during breeding season, subject to resource closures	X	ORV Route YR Pedestrian access to the "rip" permitted from soundside access during breeding season, subject to resource closures	ORV Route YR Pedestrian access to the "rip" permitted from soundside access during breeding season, subject to resource closures
Ocean shoreline from 0.2 miles SW of Bone Road (AKA Fort Clark Spur) to inlet (Species Management Area)	1.0	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14 (SM1)	X (SM1)	ORV Route - Sept 1 to March 14 Non-ORV area – March 15 to August 31 (SM1)	X Establish new interdunal road extending SW and NE of south end of Pole Rd to provide access to False Point and inlet. (SM1)
<b>Ocracoke Island (north to south)</b> Inlet to 0.25 miles NE of Ramp 59 (Species Management Area)	1.1	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14 Expand parking area at Ramp 59 (SM1)	X (SM1)	Expand parking area at Ramp 59. Provide pedestrian access corridor(s), subject to resource closures during breeding season. Develop pedestrian boardwalk access from ferry terminal parking. (SM1)	X Establish new interdunal road parallel to the beach extending from Ramp 59 for 0.3 miles NE toward the inlet, with parking at the terminus. (SM1)
0.25 miles NE of Ramp 59 to 0.25 mile SW of Ramp 59	0.5	OPEN YR**	ORV Route YR	ORV Route YR	ORV Route YR	ORV Route YR
0.25 mile SW of Ramp 59 new Ramp 62 @ 3.0 mile NE of Pony Pen Area	2.4	OPEN YR** longstanding safety closure	ORV Route YR	ORV Route YR	ORV Route YR	X

Comment [dw4]: Is this mileage correct?

## CAHA ORV Routes & Areas Table v04/01/09

		Alts A & B— No Action	Alternative C	Alternative D	Alternative E	Alternative F
Oceanside Location	Mileage*	Designated ORV Route and Areas (X = No ORV use permitted, YR = ORV permitted Year Round) All ORV Routes and Area areas subject to temporary resource closures				
new Ramp 62 to new Ramp 64 @ 1.0 mile NE of Pony Pen	2.0	OPEN YR** longstanding safety closure	ORV Route YR Establish parking at Ramp 64	ORV Route YR	ORV Route YR Establish parking at Ramp 64	ORV Route YR Establish parking at Ramp 64
New Ramp 64 @ 1.0 mile NE of Pony Pen to 3/4 mile NE of Ramp 67	2.3	OPEN YR** longstanding safety closure	<b>X</b> Expand parking at Pony Pen	<b>X</b>	<b>X</b> Expand parking at Pony Pen	<b>X</b> Expand parking at Pony Pen
3/4 mile NE of Ramp 67 to 0.5 miles NE of Ramp 68	1.4	OPEN YR**	ORV Route YR	ORV Route YR	ORV Route YR	ORV Route YR
0.5 miles NE of Ramp 68 to 0.5 miles SW of Ramp 68 (Campground area)	1.0	OPEN YR** Seasonally closed when campground open	Seasonal ORV Route Open when campground closed	<b>X</b>	ORV Route - Nov 1 to March 31 Non-ORV area – April 1 to Oct 31	ORV Route – Nov 1 to March 31 Non-ORV area – April 1 to Oct 31
0.5 mile SW of Ramp 68 to 1.2 mile NE of Ramp 70 (Species Management Area)	0.9	OPEN YR** Seasonally closed when campground open	ORV Route - Oct 15 to March 14 Non-ORV area – March 15 to Oct 14 (SM1)	<b>X</b> (SM1)	<b>X</b> (SM1)	ORV Route – Nov 1 to March 14 Non-ORV area – March 15 to Oct 31 (SM1)
1.2 mile NE of Ramp 70 to 0.5 miles NE of Ramp 70 (includes Day Use Area)	0.8	OPEN YR** Seasonally closed when campground open	<b>X</b> Expand parking at Day Use area	<b>X</b> Expand parking at Day Use area	<b>X</b> Expand parking at Day Use area	ORV Route – Nov 1 to March 31 Non-ORV area – April 1 to Oct 31
0.5 miles NE of Ramp 70 to 0.5 mile SW of Ramp 72	2.7	OPEN YR**	ORV Route YR	ORV Route YR	ORV Route YR	ORV Route YR
0.5 mile SW of Ramp 72 to inlet (Species Management Area)	3.0	OPEN YR**	ORV Route - Oct 15 to March 14 Non-ORV area – March 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)	<b>X</b> (SM1)	ORV Route YR with limited access: March 15 - Aug 31  When pre-nesting area is established, ORV access corridor <u>with pass-through zone</u> 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 <sup>+</sup> with limited access: March 15 - July 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. <sup>+</sup> There would be 1.0 miles of "floating" ocean shoreline area for nonbreeding shorebirds. Area would be by-passed via ORV corridor on 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.

## CAHA ORV Routes & Areas Table v04/01/09

**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.

(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 (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 & B	C	D	E	F
Closed to ORV (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	66-68	68.0	68.0	68.0	68.0

## ORV Management Alternatives Matrix\* v04/03/09a

Cape Hatteras National Seashore  
 ORV Management Plan/Environmental Impact Statement

Management Activity	Alternative A—No Action, Continuation of Management under IPSMS	Alternative B – No Action, Continuation of Management Under Consent Decree	Alternative C – Seasonal Management	Alternative D – Increased Predictability and Minimum Management	Alternative E – Variable Access and <b>Maximum</b> Management	Alternative F – Advisory Committee Based Management Options
ORV Routes, Areas, and Corridors	<p><u>ORV Use Areas:</u> All areas of the Seashore are potentially open to ORV access, except when closed as described in Superintendent's Order # 7. Visitors accessing the Seashore by ORV must drive only on marked ORV routes and comply with posted restrictions. Refer to Routes and Areas Table for this alternative.</p> <p><u>ORV Corridors:</u> The ORV corridor on the ocean beach is marked by posts placed approximately 150 feet landward from the average, normal high tide line, or if less than 150 feet of space is available, at the vegetation or the toe of the remnant dune line; except as noted in the Interim Protected Species Management Strategy. The corridor width will fluctuate over time due to the dynamic nature of beach and surf.</p>	<p><u>ORV Use Areas:</u> Same as alternative A.</p> <p><u>ORV Corridors:</u> Same as alternative A, except:</p> <ul style="list-style-type: none"> <li>- March 15 – <del>November 15</del>: In all locations not in front of the villages that are open to ORV use, NPS shall provide an ORV-free zone in the ocean backshore at least 10 m wide, wherever there is sufficient beach width to allow an ORV corridor of at least 20 m above the mean high tide line.</li> </ul>	<p><u>ORV Routes:</u> ORV access would be prohibited in all areas of the Seashore except where an ORV route is specifically designated. An <b>ORV route</b> 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 may be temporarily closed to ORV use to protect park resources, provide for visitor safety, or prevent user conflicts. Refer to Routes and Areas Table.</p> <p><u>ORV Corridors:</u> An <b>ORV corridor</b> 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 high tide line (seaward side of 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><u>Seasonally Designated ORV Routes:</u> Would occur as indicated in Routes and Areas Table</p>	<p><u>ORV Routes:</u> Same as alternative C</p> <p><u>ORV Corridors:</u> Same as alternative C</p> <p><u>Seasonally Designated ORV Routes:</u> No seasonal designations under this alternative</p>	<p><u>ORV Routes:</u> Same as alternative C</p> <p><u>ORV Corridors:</u> Same as alternative C, except:</p> <ul style="list-style-type: none"> <li>- March 15 – August 31: Where the ocean beach is at least 30 m wide above the high tide line, the corridor would be posted 10 m seaward of the toe of the dune to provide an ocean backshore closure.</li> </ul> <p><u>Seasonally Designated ORV Routes:</u> Same as alternative C</p>	<p><u>ORV Routes:</u> Same as alternative C</p> <p><u>ORV Corridors:</u> Same as alternative C, except:</p> <ul style="list-style-type: none"> <li>- Year-round: Where the ocean beach is at least 30 m wide above the high tide line, the corridor would be posted 10 m seaward of the toe of the dune to provide an ocean backshore closure.</li> </ul> <p><u>Seasonally Designated ORV Routes:</u> Same as alternative C</p>

**Comment [dw2]:** Narrative says "Simplified"

**Comment [dw1]:** Not sure this terminology makes sense anymore. Maybe "alternative element"

**Comment [dw6]:** Make it clear the that routes aren't the same, but the designation of routes is. Applies to all action alternatives.

**Comment [dw4]:** Consent decree says Nov 30<sup>th</sup>

**Comment [dw5]:** Where are the details of the corridor? Width? Location? Seasonal element?

**Comment [dw3]:** Should we mention that it's reduced to 100-feet April 1-August 31?



### ORV Management Alternatives Matrix\* v04/03/09a

Village Beaches, Campgrounds, and Day-Use Areas	<p>"Village beaches," as identified below, are seasonally closed to ORV use from May 15 through September 15:</p> <ul style="list-style-type: none"> <li>- Bodie Island, Ramp 1 to 0.6 miles south of Coquina Beach</li> <li>- Beaches fronting the villages of Rodanthe, Waves, Salvo, and Avon</li> <li>- The beach fronting Buxton south to Ramp 43</li> <li>- Beaches fronting the villages of Frisco and Hatteras</li> <li>- Ocracoke Island from 0.5 miles South of Ramp 67 to 0.25 miles North of Ramp 70 (includes campground and day use area)</li> </ul>	<p>Same as alternative A, except:</p> <ul style="list-style-type: none"> <li>- The beach from Ramp 43 to 0.4 mile north is open to ORVs year-round</li> </ul>	<p>Village beaches would be managed as follows (also described in the Routes and Areas Table):</p> <ul style="list-style-type: none"> <li>- <u>Seasonally Restricted ORV Routes:</u> (closed to ORVs Mar 15 to Oct 14, unless otherwise indicated)</li> <li>- <u>Bodie Island from Ramp 1 to approx. 0.5 miles south of Coquina Beach</u></li> <li>- <u>Rodanthe, Waves, Salvo, Avon, Frisco, and Hatteras Village beaches</u></li> <li>- <u>Ocracoke campground beach, from 0.5 miles NE to 0.5 miles SW of Ramp 68 (closed to ORVs when campground open, which is approximately April 1 – Oct 31)</u></li> </ul> <p><u>Non-ORV Areas year-round:</u></p> <ul style="list-style-type: none"> <li>- Buxton beach south to 0.4 miles north of Ramp 43</li> <li>- Ocracoke day use area beach, from 1.2 miles NE to 0.5 miles NE of Ramp 70</li> </ul>	<p>Village beaches would be managed as follows (also described in the Routes and Areas Table):</p> <p><u>Non-ORV Areas year-round:</u></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 the Routes and Areas Table):</p> <p><u>Seasonally Restricted ORV Routes:</u> (closed to ORVs April 1 to Oct 31)</p> <ul style="list-style-type: none"> <li>- Rodanthe, Waves, Salvo, and Avon beaches, and Buxton beach south to 0.4 miles north of Ramp 43</li> <li>- Ocracoke campground beach, from 0.5 miles NE to 0.5 miles SW of Ramp 68</li> <li>- <u>Ocracoke day use area beach, from 1.2 miles NE (of Ramp 70?) to 0.5 miles NE of Ramp 70</u></li> </ul> <p><u>Non-ORV Areas year-round:</u></p> <ul style="list-style-type: none"> <li>- Bodie Island from Ramp 1 to approx. 0.5 miles south of Coquina Beach</li> <li>- Frisco and Hatteras Village beaches</li> </ul>	<p>Village beaches would be managed as follows (also described in the Routes and Areas Table):</p> <p><u>Seasonally Restricted ORV Routes:</u> (closed to ORVs as indicated below)</p> <ul style="list-style-type: none"> <li>- Rodanthe, Waves, Salvo, and Avon beaches (closed to ORVs May 15 - Sept 15)</li> <li>- Frisco and Hatteras Village beaches would be closed to ORVs March 1 to Nov 30</li> <li>- Ocracoke campground beach, from 0.5 miles NE to 0.5 miles SW of Ramp 68 (closed to ORVs April 1 – Oct 31)</li> <li>- Ocracoke day use area beach, from 1.2 miles NE to 0.5 miles NE of Ramp 70 (closed to ORVs April 1 – Oct 31)</li> </ul> <p><u>Non-ORV Areas year-round:</u></p> <ul style="list-style-type: none"> <li>- Bodie Island from Ramp 1 to approx. 0.5 miles south of Coquina Beach</li> <li>- Buxton beach south to 0.4 miles north of Ramp 43</li> </ul>
	ORV Access		<p><b>Oceanside Access</b></p> <p>ORV access is provided via 17 oceanside ramps and access points located off NC-12.</p> <p>Ramps are numbered and identified on the Seashore's ORV route map as official vehicle access routes.</p> <p>Seashore staff maintains ramps and signage.</p>	<p><b>Oceanside Access</b></p> <p>Same as alternative A</p>	<p><b>Oceanside Access</b></p> <p>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 the ORV Routes and Areas Table. Toilet facilities and trash receptacles would be provided at <u>high use locations</u>.</p>	<p><b>Oceanside Access</b></p> <p>Same as alternative C</p>
<p><b>Soundside Access</b></p> <p>ORV access is provided via 18 soundside access points located off NC-12.</p> <p>Seashore staff maintains ramps and signage.</p>		<p><b>Soundside Access</b></p> <p>Same as alternative A</p>	<p><b>Soundside Access</b></p> <p>Existing soundside ramps would <u>be designated as ORV routes and remain open with sufficient maintenance to provide clear passage</u>.</p> <p>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></p> <p>Same as alternative A</p>	<p><b>Soundside Access</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>- Existing Ocracoke Island access points north of village would remain open to commercial fishermen</li> </ul> <p>Signage/posts would be installed at the parking areas and boat launch areas to prevent damage to vegetation and other soundside resources.</p>

- Comment [dw7]:** R&A table says .5 miles
- Comment [dw9]:** R&A table has this area open to ORV March 15 – October14
- Comment [dw10]:** R&A table has these areas closed year round
- Comment [dw12]:** R&A table has this area closed to ORV year round
- Comment [dw8]:** Only closed to ORV from April 1 –Oct 31
- Comment [dw11]:** TRI-VILLAGE

**Comment [dw13]:** What are the "high use" areas?

**Deleted:** Existing soundside ORV access points would be designated as ORV routes and remain open with sufficient maintenance to provide clear passage and route signage to prevent impacts to vegetation, plus

**ORV Management Alternatives Matrix\* v04/03/09a**

	<p><i>Interdunal Roads</i> One lane, interdunal routes have been designated as follows:</p>	<p><i>Interdunal Roads</i> Same as alternative A</p>	<p><i>Interdunal Roads</i> Same as alternative A, plus: - Existing interdunal roads would be better maintained as needed to provide access to ORV areas. Pull-outs or road widening would be provided where appropriate to provide safe passage.</p>	<p><i>Interdunal Roads</i> Same as alternative A</p>	<p><i>Interdunal Roads</i> Same as alternative C</p>	<p><i>Interdunal Roads</i> Same as alternative C</p>
<p><i>Bodie Island Ranger District</i> None</p>	<p><i>Bodie Island Ranger District</i> Same as alternative A</p>	<p><i>Bodie Island Ranger District</i> Same as alternative A</p>	<p><i>Bodie Island Ranger District</i> Same as alternative A</p>	<p><i>Bodie Island Ranger District</i> Same as alternative A</p>	<p><i>Bodie Island Ranger District</i> Same as alternative A</p>	
<p><i>Hatteras Island Ranger District</i> - Cape Point between Ramp 44 to Ramp 45 - Hatteras Inlet from Ramp 55 to the inlet (includes Pole Road and Spur Road).</p>	<p><i>Hatteras Island Ranger District</i> Same as alternative A</p>	<p><i>Hatteras Island Ranger District</i> Same as alternative A, plus - <u>South Beach</u>: Extend interdunal road west of Ramp 45 to new Ramp 47</p>	<p><i>Hatteras Island Ranger District</i> Same as alternative A</p>	<p><i>Hatteras Island Ranger District</i> Same as alternative C, except: - <u>South Beach</u>: Extend interdunal road west of Ramp 45 to Ramp 49. Establish new Ramp 48 off of interdunal road.</p>	<p><i>Hatteras Island Ranger District</i> Same as alternative E, plus: - <u>Hatteras Inlet Spit</u>: Re-route Pole Road toward the sound west of the Overwash Fan to provide natural barrier to bird nesting area south 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><i>Ocracoke Island Ranger District</i> None</p>	<p><i>Ocracoke Island Ranger District</i> Same as alternative A</p>	<p><i>Ocracoke Island Ranger District</i> Same as alternative A</p>	<p><i>Ocracoke Island Ranger District</i> Same as alternative A</p>	<p><i>Ocracoke Island Ranger District</i> Same as alternative A</p>	<p><i>Ocracoke Island Ranger District</i> <u>North Ocracoke Spit</u>: Establish new interdunal road parallel to the beach from Ramp 59 for 0.3 miles NE toward the inlet, with parking area at the terminus.</p>	

**Comment [dw14]:** R&A table has extend interdunal road to ramp 49 and establish new ramp 48  
**Deleted:** s 47 and

**ORV Management Alternatives Matrix\* v04/03/09a**

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Hours of Allowable ORV Operation on Beach</p>	<p>All areas of the seashore open 24 hours a day year round.</p>	<p>November 16 – April 30: All beaches open to ORV use 24 hours a day.</p> <p>May 1 – November 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. – 6:00 a.m.; except that from September 16 to November 15 ORV use is allowed from 10:00 p.m. – 6:00 a.m. subject to terms and conditions of a permit.</p>	<p>November 16 – April 30: Designated ORV routes would be open to ORV use 24 hours a day.</p> <p>May 1 – November 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.</p> <p>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>November 16 – April 30: Designated ORV routes would be open to ORV use 24 hours a day.</p> <p>May 1 – November 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. "Park-and-stay" overnight would be allowed with a permit as 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>September 16 – November 15: <b>Selected</b> ORV routes with no or low density of turtle nests would re-open to ORV use between 10:00 p.m. and 6:00 a.m., subject to terms and conditions of permit.</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>November 16 - April 30: Designated ORV routes would be open to ORV use 24 hours a day.</p> <p>May 1 – November 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 approximately ½ hour after sunrise).</p> <p>September 16 – November 15: Selected ORV routes with no or low density of turtle nests remaining would re-open for <b>night driving</b>, subject to terms and conditions of an ORV permit.</p> <p>Hours of night driving prohibition would be established in the Superintendent's Compendium and subject to Periodic Review.</p>
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**Comment [dw15]:** R&A table closes some areas to ORV use altogether on March 15, so April 30 date is unnecessary...

**Comment [dw17]:** Narrative says Park and Stay

**Comment [dw16]:** R&A has them closed March 15 – October 14

**Comment [dw18]:** Are the hours same as above? May want to repeat the hours as the other alternatives do.

**ORV Management Alternatives Matrix\* v04/03/09a**

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">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 miles south of Ramp 38 to 0.4 mile north of Ramp 43.</li> <li>- Buxton to Lighthouse Beach</li> <li>- Northern boundary of Frisco to Hatteras Village</li> <li>- Hatteras Village <a href="#">Beach</a></li> <li>- 1.5 miles north of Ramp 67 to 1 mile south 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 debris on the beach, narrow beaches, and congested areas. 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 re-opening an ORV safety closure.</p>	<p>ORV Safety closures would not be established. ORV drivers would be responsible for recognizing and <u>a</u>voiding 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. 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 by-passed 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 which 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>
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**ORV Management Alternatives Matrix\* v04/03/09a**

<p><b>Pedestrian Safety</b></p>	<p>36 CFR § 4.20 Right of Way An operator of a motor vehicle shall yield the right of way to pedestrians, (saddle and pack animals, and vehicles drawn by animals). Failure to yield the right of way is prohibited.</p> <p>36 CFR § 4.22 Unsafe Operation (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.</p> <p>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(s) 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(s).</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 10 meters (30 ft) 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>Beach in front of the former site of Cape Hatteras Lighthouse is closed to ORV access.</p> <p>Buxton Woods is road 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 the Routes and Areas Table.</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 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 2-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 crosses dune line</p>	<p>Same as alternative A</p>	<p>Ramps would be 2-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: Preferably, each ORV route would have an access ramp at either end of the route.</p>

**Comment [dw19]:** Is there language somewhere about vehicle ROW and ramps?

**Comment [dw20]:** This should be common to all action, no?

**Comment [dw21]:** Consent decree has requirements for new signage at all ORV access points

**ORV Management Alternatives Matrix\* v04/03/09a**

<b>Permit Requirements</b>	No permit required.	Night driving permit required for ORV use from 10:00 p.m. – 6:00 a.m. September 16 – November 15.	ORV permit required	Same as alternative C	Same as alternative C	Same as alternative C
<b>Permit Distribution</b>	n/a	Available in-person at various locations and on-line	Available in-person at designated permit issuing stations and on-line	Same as alternative C	Same as alternative C	Same as alternative C
<b>Permit Issuance Requirements</b>	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. The owner would sign for their permit to acknowledge s/he understands the rules and regulations governing ORV use at the Seashore.	ORV owners must read an information brochure and sign the permit to acknowledge s/he understands the rules and regulations governing ORV use at the Seashore.	Same as alternative C	Same as alternative C
<b>Permit Types</b>	n/a	Night driving permit for Sept 16 – 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. In addition, a separate permit would be required for the following activities: - Park-and-stay overnight - Self-contained vehicle (SCV) camping - <u>Night driving permit required from September 16- November 15</u>	Weekly (7-day) and annual (12-month) ORV permits would be valid from date of purchase.  - <u>Night driving permit required from September 16- November 15</u>
<b>Permit Number Limits</b>	n/a	No limit on night driving permits	No limit on ORV permits	Same as alternative C	Same as alternative C, except: - Use limits would be established for Park-and-Stay and SCV camping - Use limits would be subject to Periodic Review	Same as alternative C

**Comment [dw22]:** Discuss why different from alt C, is there is difference in impact between calendar year and 12 months from purchase?

**Comment [dw23]:** Would there be four different permits required? Basic ORV, Park and stay, SCV, and night driving?

**ORV Management Alternatives Matrix\* v04/03/09a**

<b>Permit Fees</b>	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: - Amount of fee would be lower than alternative C due to decreased management costs under this alternative	Same as alternative C, except: - Fee for weekly ORV permit would be less than fee for annual permit. - Fees for park-and-stay and SCV permits would be determined separately.	Same as alternative C, except: - Fee for weekly ORV permit would be less than fee for annual permit.
<b>Permit Form</b>	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
<b>Permit Revocation</b>	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
<b>Beach Parking</b>	Parking within routes is allowed in any configuration.	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

### ORV Management Alternatives Matrix\* v04/03/09a

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">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 ("miles" refers to miles of beach open to ORV use):</p> <p><i>Bodie Island Ranger District</i></p> <ul style="list-style-type: none"> <li>- 260 vehicles/mile (20 feet per vehicle)</li> </ul> <p><i>Hatteras Island Ranger District</i></p> <ul style="list-style-type: none"> <li>- 260 vehicles/mile (20 feet per vehicle)</li> </ul> <p><i>Ocracoke Island Ranger District</i></p> <ul style="list-style-type: none"> <li>- 100 vehicles/mile (54 feet per vehicle)</li> </ul> <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><i>Hatteras Island Ranger District</i></p> <ul style="list-style-type: none"> <li>- Cape Point: 400 vehicles allowed within a 1 mile area centered on Cape Point</li> </ul> <p><i>Ocracoke Island Ranger District</i></p> <ul style="list-style-type: none"> <li>- 175 vehicles/mile (30 feet /vehicle)</li> </ul>	<p>Same as alternative E, except:</p> <p><del><i>Ocracoke Island Ranger District</i></del></p> <p><del>- 260 vehicles/mile (20 feet per vehicle)</del></p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Off-Road Vehicle 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 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 thirty (30') feet (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 USDOT 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</li> </ul>	<p>Same as alternative C</p>

**Deleted:** All locations except Cape Point 260 vehicles/mile (20 feet/vehicle)

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**Comment [dw24]:** 5280/100 = 52.8



### ORV Management Alternatives Matrix\* v04/03/09a

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 posted speed limit. Tire pressure of 20 <i>psi</i> 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	25 mph (unless otherwise posted) on park beaches for public and private vehicles. Speed limit in front of villages during off season (September 16 – May 14) on park beaches posted at 10 mph. Emergency vehicles exempt when responding to a call.	May 15 – Sept 15: 15 mph (unless otherwise posted) Sept 16 - May 14: 25 mph (unless otherwise posted)	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 Piping Plover, Atlantic Coast Population, Revised Recovery Plan (USFWS 1996a). To the extent practicable, emergency response vehicle operators will consult with trained resources 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

Comment [dw25]: Should we mention the 10mph speed limit when corridor < 100ft wide?

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Comment [dw26]: Verify citation

### ORV Management Alternatives Matrix\* v04/03/09a

Non-ORV Areas	None designated. ORVs are temporarily prohibited in seasonal (village) closures, safety closures, <u>administrative closures</u> , 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 the Routes and Areas Table	Same as alternative C	Same as alternative C	Same as alternative C
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	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 by-pass sections of NC Highway 12 that are closed for repairs. - Temporary non-emergency ORV use of non-ORV areas to areas traditionally used by fishing tournaments that were established prior to January 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 park lots throughout the Seashore, totaling approximately 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 ORV Routes and Areas Table. NPS would utilize environmentally appropriate design standards to minimize stormwater runoff and other resource impacts. Toilet facilities and trash receptacles would be provided at <u>high use locations</u> .	Same as alternative C	Same as alternative C	Same as alternative C

**Comment [dw27]:** Somewhat deceiving, as the closed areas are highly variable.

**Comment [dw28]:** Item 28 of the consent decree requires education/signage so is this same as A or do we need to elaborate here?

**Comment [dw29]:** Do we want to specify where these are?

**ORV Management Alternatives Matrix\* v04/03/09a**

Alternative Transportation	None	Same as alternative A	NPS would consider application(s) for commercial use authorization(s) to offer beach shuttle service(s)	Same as alternative A	Same as alternative C, plus: - 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 point (s) would be subject to closure on short notice if needed to protect park resources.	Same as alternative C
Camping and Nighttime Beach Use	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.  *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.	Same as alternative A, plus: - Night-time use of ORVs is seasonally restricted as described under the Hours of Allowable ORV Operation section	Same as alternative B, plus: - Unattended beach equipment (i.e., chairs, canopies, volleyball nets, water sports gear, etc.) is prohibited on the Seashore at night. Turtle patrol and law enforcement will tag equipment found at night. Owners have 24 hrs to remove equipment before it will be removed by NPS staff. - This policy would be subject to Periodic Review	Same as alternative C	Same as alternative C, plus: Self-Contained Vehicle (SCV) camping would be authorized as follows: - The following campgrounds and use limits would be designated for SCV camping from Nov 1 to March 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. - SCV permits would be required, in addition to an ORV permit for beach driving, and would be available in weekly or seasonal increments - There would be a 7 consecutive day/ 6 night stay limit during any one visit and a limit of one visit per month - 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 - Holding tanks must be dumped at an appropriate facility every 72 hours during a visit	Same as alternative C
Beach Fires	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: - Fires prohibited 12:00 midnight to 6:00 AM year-round - Fires prohibited within resource closures	Same as alternative A, plus: - Fires prohibited within 100 yards of turtle nest protection areas	Same as alternative B, plus: - A non-fee educational fire permit is required for any beach fire year-round - This policy would be subject to Periodic Review	Same as alternative B	Same as alternative C	Same as alternative C, except: - May 1 – November 15: Beach fires 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.

**Comment [dw30]:** Park and stay option should be mentioned

**Comment [dw31]:** Where is this language from? Didn't see it in consent decree.

**ORV Management Alternatives Matrix\* v04/03/09a**

<p><b>Pets</b></p>	<p>Per 36 CFR 2.15: The following are prohibited: Possessing a pet in an area closed to the possession of pets by the Superintendent. Failing to crate, cage, restrain on a leash which shall not exceed six feet in length, or otherwise physically confine a pet at all times.</p> <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>	<p>Same as alternative A</p>	<p>Same as alternative A, except :</p> <ul style="list-style-type: none"> <li>- Pets would be prohibited within all designated Breeding Shorebird SMAs from March 15 – October 15</li> <li>- Pets would be prohibited within all Nonbreeding Shorebird SMAs that are otherwise open to recreational use.</li> <li>- <u>Pets prohibited in ORV access corridors during pre-nesting period</u></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 Species Management Areas 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 March 15 – August 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 March 15 – July 31, or two weeks after all shorebird breeding activities has ceased or chicks have fledged in the area, which ever comes later.</li> </ul>
<p><b>Horses</b></p>	<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. 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>	<p>Same as alternative A</p>	<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 <u>after</u> ORV routes are determined.</li> <li>- Horse use would be allowed on village beaches from Sept 16 to May 14</li> <li>- This policy would be subject to Periodic Review</li> </ul>	<p>Same as alternative A</p>	<p>Same as alternative C</p>	<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>

**Comment [dw32]:** Refer to SM table

**Comment [dw33]:** SM tables has different restrictions for pets.

**ORV Management Alternatives Matrix\* v04/03/09a**

<p><b>Commercial Fishing Vehicles</b></p>	<p>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.</p>	<p>Same as alternative A, plus:                  - Are subject to night driving restriction in consent decree</p>	<p>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 thirty (30) days. Such modifications would be subject to Periodic Review.</p>	<p>Same as alternative C</p>	<p>Same as alternative C</p>	<p>Same as alternative C</p>
<p><b>Periodic Review</b></p>	<p>None</p>	<p>Same as alternative A</p>	<p>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.</p>	<p>Same as alternative A</p>	<p>Same as alternative C</p>	<p>Same as alternative C</p>
<p><b>Law Enforcement (LE)</b></p>			<p>To be determined</p>	<p>To be determined</p>	<p>To be determined</p>	<p>To be determined</p>

**ORV Management Alternatives Matrix\* v04/03/09a**

<b>Staffing</b>			To be determined	To be determined	To be determined	To be determined
<b>Materials</b>			To be determined	To be determined	To be determined	To be determined
<b>Resource Protection Measures</b>						
<b>Breeding Season Measures</b>	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 <i>Finding of No Significant Impact (FONSI)</i> .	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.	Breeding Shorebird Species Management Areas (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 the Species Management Table. Would implement SM1 measures at all locations, except implement SM2 at Bodie Island Spit, Cape Point, and South Point Ocracoke. Designated SMAs would be subject to Periodic Review.	Same as alternative C, except: - Would implement SM1 at all locations	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 the Species Management Table	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 the Species Management Table

**ORV Management Alternatives Matrix\* v04/03/09a**

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Nonbreeding Season Measures</p>	<p>As described in the Interim Strategy <i>FONSI</i>:                  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 an annual habitat assessment and monitoring.</p>	<p>Same as alternative A</p>	<p>Nonbreeding Shorebird Species Management Areas (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 the Routes &amp; Areas Table, would be managed as Nonbreeding Shorebird SMAs with recreational activity restrictions as described in the Species Management Table.                   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):</p> <ul style="list-style-type: none"> <li>- “Floating” 1.5 miles of ocean shoreline habitat between Salvo and Avon would be non-ORV (in addition to Ramp 27-30), based on habitat assessment and nonbreeding surveys</li> <li>- “Floating” 1.5 miles 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).</li> <li>- “Floating” 1.0 miles of ocean shoreline between Ramp 72 and inlet, based on annual habitat assessment and nonbreeding surveys. Upper beach ORV corridor will be used to by-pass to the 1.0 mile shoreline area.</li> </ul> <p>The “floating” Nonbreeding Shorebird SMAs would be monitored as described in the Species Management Table and subject to Periodic Review.</p>
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\*This matrix is designed to display differences among alternatives, and actions common to all alternatives are not included in it. Actions common to all alternatives can be viewed on pp. **xx-xx**.

**CAHA ORV Management Alternatives Narrative, v04/07/09****ALTERNATIVES**

Regulations from the Council on Environmental Quality 40 CFR 1502.14(d) require that the alternatives analysis in an EIS must “include the alternative of no action.” The no action alternative “sets a baseline of existing impacts continued into the future against which to compare impacts of action alternatives” (NPS Director’s Order 12, Section 2.7). Alternative A and Alternative B are the two no-action alternatives that will be analyzed in this Draft EIS. Both no action alternatives are included for analysis because management during the planning process for the plan/EIS changed part-way through the planning process in May 2008.

**ALTERNATIVE A: NO-ACTION ALTERNATIVE, CONTINUATION OF MANAGEMENT FROM THE INTERIM PROTECTED SPECIES MANAGEMENT STRATEGY**

Under this no action alternative, management of off-road vehicle use and access at the Seashore would be a continuation of management based on the 2006 interim protected species management strategy/EA, the related July 2007 Finding of No Significant Impact (FONSI), and the Superintendent’s Compendium 2006, as well as elements from the 1978 draft interim ORV management plan that were incorporated in Superintendent’s Order #7. These actions would include allowing ORV access throughout the Seashore, except in areas where temporary resource, safety or administrative closures are made. Under the no action alternative, the entire Seashore, would for purposes of the rulemaking process, be a designed route or area, subject to temporary closures. Alternative A is analyzed as a baseline for comparison with the other Alternatives in the Draft EIS following the requirements in 40CFR 1502.14(d).

**ALTERNATIVE B: NO-ACTION ALTERNATIVE, CONTINUATION OF MANAGEMENT FROM THE CONSENT DECREE SIGNED APRIL 30, 2008**

Under alternative B, management of off-road vehicle use and access at the Seashore would be a continuation of management under Alternative A, except where modified by specific species protection measures from the April 30, 2008 consent decree which are required until the ORV plan and final rule are completed. These management modifications included increasing the size of the buffers provided to various species at the Seashore, as well as added restrictions related to night driving. Alternative B is analyzed as a baseline for comparison with the other Alternatives in the Draft EIS following the requirements in 40CFR 1502.14(d).

**ALTERNATIVE C: SEASONAL MANAGEMENT**

This alternative is designed to provide visitors to the Seashore with a degree of predictability regarding areas available for ORV use, as well as vehicle-free areas, based largely on the seasonal resource and visitor use characteristics of various areas in the park. This alternative would manage ORV use by identifying areas that historically do not support sensitive resources or that historically have lower visitor use. Many of these areas would generally be designated as ORV routes year-round. Areas of high resource sensitivity and high visitor use would generally be designated as seasonal ORV routes with restrictions based on seasonal resource and visitor use or as year-round non-ORV areas. Some areas would be designated as vehicle-free year-round to provide opportunities for non-ORV users to experience the Seashore without the presence of vehicles. The establishment of ORV routes and vehicle-free areas would be based largely on seasonal resource requirements and year-round visitation patterns and would provide the public and the Seashore with a structured management approach that clearly states what areas are available for ORV use and when they are open. The public would have clear direction as to what would be open seasonally or year-round, but it would require some effort on the public’s part to be informed and to understand what areas are open and when use is permitted. Implementation would require



### CAHA ORV Management Alternatives Narrative, v04/07/09

an increase in park staff and resources for public education and enforcement, but would provide for efficient park operations with the identification of defined use areas.

Generally, most areas where there is a designated ORV route would be open to ORVs from October 15 to March 14, primarily due to concerns about resource protection and to minimize conflicts with high visitor use periods. Areas that would be seasonally designated vehicle-free would include “Species Management Areas” and some village beaches. These seasonal vehicle-free areas would primarily occur during periods of high visitation and high resource sensitivity—the summer and shoulder season months. The spits and points would be closed to ORVs from March 15 to October 14 to provide resource protection. [A pedestrian access corridor would be provided at Bodie Island Spit, Cape Point, and South Point.](#) Existing soundside ORV access areas would be retained and designated as ORV routes, including existing primitive parking and designated boat launch areas. The Seashore would maintain posts and signage defining the location of the parking areas and ORV access routes on the soundside.

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ORV routes under this alternative would still be subject to temporary resource closures established when protected species breeding behavior warrants and/or if new habitat is created. [In addition to the breeding season measures, resource closures and/or vehicle-free areas would be established, based on an annual nonbreeding habitat assessment conducted after the breeding season, to provide areas of nonbreeding shorebird habitat with reduced human disturbance while still allowing a pedestrian or pedestrian/ORV access corridor \(common to all alternatives\).](#)

Comment [dw1]: Run on, Berger to address

Designated ORV routes would be established seasonally in areas with high visitation and/or sensitive resources and year-round in some areas that historically do not support sensitive resources or that have lower visitor use. To facilitate ORV access to the designated routes, existing ramps would be improved, reconfigured and/or supplemented by new ramps, including the construction of a new Ramp 47. (Note: All action alternatives involve relocating Ramp 2, closing ramp 4 and replacing it with a new ramp 3, and building new ramps at 32.5, 62, and 64). In addition, the interdunal road network would be maintained at its current level of access in most places although an extension from Ramp 45 west to the new Ramp 47 would be provided. Pull-outs or road widening would be provided where appropriate to provide safe ORV passage on the interdunal roads. Designated ORV routes would be open to ORV use 24 hours a day from [November 16 through April 30.](#) From May 1 through November 15, all 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. This alternative also involves the addition of parking spaces at a few ramp locations.

Comment [dw2]: R&A table closes some areas to ORV use altogether on March 15. Add explanation?

ORV safety closures would be designated as conditions warrant and would be evaluated for re-opening by NPS law enforcement staff on a weekly basis. ORV safety closures would be applicable only to ORV access; pedestrian and commercial fishing access would generally be maintained through ORV safety closures.

Alternative C would include a Seashore-wide, carrying capacity element (“peak use limit”) which would be based on a physical space requirement of one vehicle per 20 linear feet for Bodie and Hatteras Island Ranger Districts and one vehicle per 54 linear feet for the Ocracoke Island Ranger District. The carrying capacity could be implemented any time that overcrowding could cause safety concerns, such as peak use periods during major summer holidays and weekends. The allowable number of vehicles in each area subject to the carrying capacity would be determined by the space requirements and the beachfront length of the area.

Alternative C would include an ORV permit system, with no limits on numbers of permits issued. Permit fees would be determined based on the recovery of NPS costs incurred in managing ORV use. Only annual permits would be available under this alternative, but these would be valid 12 months from date of purchase so they could extend over the length of a season. To obtain the permit, ORV owners would be

## CAHA ORV Management Alternatives Narrative, v04/07/09

required complete a short education program in-person or on-line and pass a basic knowledge test demonstrating their understanding of the rules and regulations governing ORV use at the seashore, beach driving safety, and resource closure requirements. Following completion of the test, the owner would need to sign for their permit to acknowledge that they understand the rules and that all drivers of the permitted vehicle will abide by the rules and regulations governing ORV use at the seashore. A violation of the rules and regulations by the owner or driver of the ORV could result in revocation of the vehicle permit, and the owner/permittee would not be allowed to obtain another permit for any vehicle for a specified period of time.

Every five years NPS would conduct a systematic review of the ORV management measures identified in this alternative as being subject to Periodic Review. This could result in changes to those management actions in order to improve effectiveness.

### ALTERNATIVE D: INCREASED PREDICTABILITY AND SIMPLIFIED MANAGEMENT

This alternative is designed to provide visitors to the Seashore with the maximum amount of predictability regarding routes available for ORV use and vehicle-free areas for pedestrian use, which means establishing year-round ORV route and non-ORV area designations consistent with approved use patterns over the course of the year. Under this alternative, ORV routes would be determined by identifying areas that historically do not support sensitive resources and areas of lower visitor use. These areas would be designated ORV routes year-round. Areas of historically high resource sensitivity or high visitor use would not be designated as ORV routes. The establishment of ORV routes and vehicle-free areas on a year-round (rather than seasonal) basis would provide the public and the Seashore with a simplified management approach that would increase predictability and reduce confusion about what areas are available for ORV use and when, and reduce the need for staff resources on the beach. Because of the relative simplicity of the elements of this alternative, implementation would require a reduced level of park staff and resources and would maximize the efficiency of park operations.

Year-round vehicle-free areas would include the area in front of villages and lifeguarded beaches as well as designated "Species Management Areas." These vehicle-free areas would provide for visitor safety during periods of high visitation, particularly in the summer months, and would also provide a vehicle free experience for visitors during the off-season. Soundside access would continue as currently provided under the no action alternatives. Vehicle-free areas would also be established year-round at Cape Point and the spits to provide a simplified approach to sensitive species management for Seashore operations, maximizing contiguous protected areas and eliminating seasonal changes in designated ORV routes and the associated demands on enforcing those changes. Other uses would still be allowed in these vehicle-free areas outside of any identified resource closures.

ORV routes under this alternative would still be subject to temporary resource closures established when protected species breeding behavior warrants and/or if new habitat is created. In addition to the breeding season measures, resource closures within some vehicle-free areas would be established, based on an annual nonbreeding habitat assessment conducted after the breeding season, to provide areas of nonbreeding shorebird habitat with reduced human disturbance (common to all alternatives).

To facilitate access to designated ORV routes, existing ORV ramps would be improved, reconfigured and/or supplemented by new ramps. (Note: All action alternatives involve relocating ramp 2, closing ramp 4 and building new ramp 3, and building new ramps 32.5, 62 and 64). Designated ORV routes would be open to ORV use 24 hours a day from November 16 through April 30. From May 1 through November 15, all potential sea turtle nesting habitat (ocean intertidal zone, ocean backshore, and dunes)

**Comment [dw3]:** Matrix says "Minimum"

**Comment [dw4]:** This is noted as common to all but language differs in C?

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## CAHA ORV Management Alternatives Narrative, v04/07/09

would be closed to non-essential ORV use from 7:00 p.m. to 7:00 a.m. to provide for sea turtle protection and allow enforcement to concentrate their resources during the daytime hours.

ORV safety closures would not be designated; ORV users would drive at their own risk and would be expected to rely on their knowledge of beach driving to determine if an area is safe to access based on their assessment of current conditions.

Alternative D would not include a carrying capacity requirement, but would include parking restrictions that would limit vehicles to a one vehicle-deep configuration, so that areas would not become overcrowded such that a safety concern would occur.

Alternative D would include a simple vehicle permit system, with no limit on the numbers of permits issued. Permit fees would be based on the recovery of NPS costs incurred in managing ORV use, but the fee should be lower than fees under alternatives C, E or F due to the decreased management costs under this alternative. Only annual (calendar year, as opposed to 12-month period) permits would be available under this alternative. To obtain the permit, ORV drivers would be required to read the rules and regulations governing ORV use at the seashore including beach driving safety and resource closure requirements. The owner would need to sign for their permit to acknowledge that they understand the rules and that all drivers of the permitted vehicle will abide by the rules and regulations governing ORV use at the seashore. Special consideration would be paid to providing beach safety information due to the lack of safety closures under this alternative. A violation of the rules and regulations by the owner or driver of the ORV could result in revocation of the vehicle permit, and the owner/permittee would not be allowed to obtain another permit for any vehicle for a specified period of time.

### ALTERNATIVE E: VARIABLE ACCESS AND MAXIMUM MANAGEMENT

This alternative is designed to provide visitors to the Seashore with a wide variety of access opportunities for both ORV and pedestrian users, including to the spits and points, but often with controls or restrictions in place to limit impacts on sensitive resources. During the shorebird breeding season some ORV routes may be open to use for longer periods of time by providing ORV pass-through zones at some spits and points, and by improving interdunal road and ramp access. More pedestrian access would be provided through substantial additions to parking capacity at various key locations that lend themselves well to walking on the beach. Vehicle-free areas would be provided during all seasons for non-ORV users to experience the park without the presence of vehicles. Like the other action alternatives, this alternative would manage ORV use by identifying areas that historically do not support sensitive resources and areas of lower visitor use. Most of these areas would be designated as ORV routes year-round. Areas of high resource sensitivity and high visitor use would either be designated as seasonal ORV routes with restrictions based on seasonal resource and visitor use or as year-round non-ORV areas. In addition, the "Species Management Areas" would be re-opened to ORV use approximately six weeks earlier than under alternative C (September 1 vs. October 15).

During the shorebird breeding season, ORV pass-through zones would be designated at Bodie Island Spit, Cape Point, and South Point. The pass-through zones would use standard resource protection buffers and would not allow pedestrians, pets, ORV stopping, parking, or disembarking passengers. These pass-through zones would be established to provide for an increased possibility of access during the pre-nesting and incubation periods only, and would be subject to resource closures. Once through the pass-through zone, recreation would be allowed outside any existing resource closures. Both Bodie Island Spit and South Point would have "pedestrian only" areas, when it can be allowed, to extend access beyond the end of the ORV route. When unfledged chicks are present, the probability of being able to provide this access would decrease. Therefore, in addition to the pass-through zones, the park would promote the use

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### CAHA ORV Management Alternatives Narrative, v04/07/09

of water taxis as alternative transportation to the points and spits, subject to designated landing zones and resource closures.

**Comment [dw5]:** Alts matrix only references landing zones at Bodie Island Spit and South Point.

The variety of access possible under alternative E, based on the establishment of ORV routes, seasonal vehicle-free areas, designation of ORV pass-through zones, and the promotion of water taxi service to designated points and spits, would provide the public with ORV and pedestrian access to a greater number of areas within the Seashore, even during the shorebird breeding season. However, this alternative would afford less predictability than alternatives C and D regarding areas available for use and would require a greater amount of oversight and management. Implementation would perhaps be difficult for the public to understand and would require a greater number of park staff and resources than the other alternatives.

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Areas that would be seasonally designated vehicle-free would include the areas in front of villages and most of the "Species Management Areas." The ORV open season in front of the villages would be defined as November 1 to March 31 and in most "Species Management Areas" from September 1 through March 14, with some lower-level ORV access to Bodie Island Spit, Cape Point and South Point Ocracoke from March 15 through August 31. Soundside access would remain open at currently designated boat launch areas, on Hatteras Inlet Spit from Pole Road to Cable Crossing and Spur Road, and on Ocracoke Island soundside areas where commercial fishing access is currently allowed. The remaining soundside access points would be closed to ORV use and small parking areas would be constructed to provide pedestrian access to the water. Signage/posts would be installed at the parking areas and boat launch areas to prevent damage to vegetation and other soundside resources.

**Comment [dw6]:** Frisco and Hatteras because are always closed to ORV

**Comment [dw7]:** However, the matrix allows motorcycles to be driven on all soundside access points. Need to clarify where these are, if they're different from the boat launch areas.

ORV routes under this alternative would still be subject to temporary resource closures established when protected species breeding behavior warrants and/or if new habitat is created. In addition to the breeding season measures, resource closures and/or vehicle-free areas would be established, based on an annual nonbreeding habitat assessment conducted after the breeding season, to provide areas of nonbreeding shorebird habitat with reduced human disturbance while still allowing a pedestrian or pedestrian/ORV access corridor (common to all alternatives).

To facilitate access to ORV routes, this alternative would extend the existing interdunal road west of ramp 45 all the way to ramp 49 and construct new ramps 47 and 48. (Note: All action alternatives involve relocating ramp 2, closing ramp 4 and building new ramp 3, and building new ramps 32.5, 62 and 64). Designated ORV routes would be open to ORV use 24 hours a day from November 16 through April 30. From May 1 through September 15, all 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. to provide for sea turtle protection and allow enforcement to concentrate their resources during the daytime hours. A limited number of ORV users would be permitted to "park-and-stay" overnight at selected spits and points, under the terms and conditions of a special use permit, when such areas are not otherwise closed to protect sensitive resources. From September 16 through November 15, ORV routes with no or a low density of turtle nests remaining (as determined by NPS) would be open between 10:00 pm and 6:00 am subject to the terms and conditions of a required permit. This alternative also involves the addition of parking spaces at several ramp locations.

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ORV safety closures could be designated as conditions warrant and would be evaluated for re-opening by NPS law enforcement staff on a weekly basis. ORV safety closures would be applicable only to ORV access; pedestrian and commercial fishing access would generally be maintained through ORV safety closures. 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.

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## CAHA ORV Management Alternatives Narrative, v04/07/09

Alternative E would include a carrying capacity requirement for all areas based on a physical space requirement of one vehicle per 20 linear feet for Bodie and Hatteras Island Ranger Districts, except 400 vehicles would be allowed within a 1 mile area centered on Cape Point, and one vehicle per 30 linear feet for the Ocracoke Island Ranger District. The carrying capacity would be implemented any time that overcrowding could cause safety concerns, such as peak use periods during major summer holidays and weekends. The allowable number of vehicles in each area would be determined by the space requirements and the beachfront length of the area.

Alternative E would include an ORV permit system, with no limits on numbers of permits issued. Permit fees would be determined based on the recovery of NPS costs incurred in managing ORV use. Expected permit fees would be higher under this alternative due to the intense level of management required for implementation. Both annual and weekly permits would be available under this alternative. To obtain the permit, ORV owners would be required complete a short education program in-person or on-line and pass a basic knowledge test demonstrating their understanding of the rules and regulations governing ORV use at the seashore, beach driving safety, and resource closure requirements. Following completion of the test, the owner would need to sign for their permit to acknowledge that they understand the rules and that all drivers of the permitted vehicle will abide by the rules and regulations governing ORV use at the seashore. A violation of the rules and regulations by the owner or driver of the ORV could result in revocation of the vehicle permit and the owner/permittee would not be allowed to obtain another permit for any vehicle for a specified period of time. The “park-and-stay” provision would be managed under a separate special use permit. Alternative E would also include a self-contained vehicle (SCV) camping opportunity from November 1 to March 31, at three NPS campgrounds (one in each district), with a separate permit requirement and use limits.

Every five years NPS would conduct a systematic review of the ORV management measures identified in this alternative as being subject to Periodic Review. This could result in changes to those management actions in order to improve effectiveness.

### ALTERNATIVE F: MANAGEMENT BASED ON ADVISORY COMMITTEE INPUT

In December 2007, DOI established a regulatory negotiation advisory committee (Committee) to assist NPS in the development of an ORV regulation for the Seashore. The Committee met eleven times from January 2007 through February 2009, and conducted numerous subcommittee and work group meetings and conference calls. The Committee discussed and explored options for the full spectrum of ORV management issues covered in this plan. Although the Committee did not reach a consensus on a recommended alternative, NPS has used the Committee’s input to create this action alternative. In cases of conflicting advice from Committee members about any particular issue, NPS has made a management judgment as to what approaches would make an effective overall ORV management alternative. In some cases, NPS has included under alternative E some ORV management approaches identified by the Committee that would require more intensive management (such as “park-and-stay” and self-contained vehicle camping), in keeping with the “maximum management” theme of that alternative.

This alternative is designed to provide visitors to the Seashore with a wide variety of access opportunities for both ORV and pedestrian users, including access to the spits and points, but often with controls or restrictions in place to limit impacts on sensitive resources. This means that some areas may be open longer periods of time to ORV users by reopening some ORV corridors at the spits and points earlier than in alternatives C or E after shorebird breeding activity is completed and by improving interdunal road and ORV ramp access. Pedestrian access would be enhanced by providing increased parking capacity at various points of access to vehicle-free areas. Such areas would be provided during all seasons for non-ORV users to experience the park without the presence of vehicles. Like the other action alternatives, this

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### CAHA ORV Management Alternatives Narrative, v04/07/09

alternative would manage ORV use by identifying areas that historically do not support sensitive resources and areas of lower visitor use. Many of these areas would generally be designated as ORV routes year-round. Areas of high resource sensitivity and high visitor use would generally be designated as seasonal ORV routes with restrictions based on seasonal resource and visitor use or as year-round non-ORV areas. In addition, the “Species Management Areas” could re-open to ORV use as early as July 31, which is up to four weeks earlier than under alternative E (September 1), when the shorebird breeding season is completed at each site (typically in August).

During the shorebird breeding season, a pedestrian access route would be established at Bodie Island Spit, and ORV access routes would be established at Cape Point and South Point. These routes would use standard resource protection buffers and would be subject to resource closures. When unfledged chicks are present, the probability of being able to provide this access would decrease.

The variety of access possible under alternative F, based on the establishment of year-round and seasonal ORV routes and vehicle-free areas, and increased interdunal roads and parking to support access, would provide the public with ORV and pedestrian access to a greater number of areas within the Seashore. However, this alternative would afford less predictability than alternative C or D, but somewhat more predictability than alternative E, regarding areas available for use and would require a comparable level of oversight and management.

Areas that would be seasonally designated vehicle-free would include the areas in front of villages and some “Species Management Areas” that would have seasonal restrictions on ORV use. The ORV open season in front of the villages would be varied with northern Hatteras village beaches open September 16 – March 14, southern Hatteras village beaches open December 1 to February 28/29, and Ocracoke campground and day use area beaches open November 1 – March 31. “Species Management Areas” (that are designated as ORV routes) would generally be closed to ORV use March 15 through July 31, or until two weeks after all chicks have fledged and breeding activity has ceased, whichever comes later. ORV access would be allowed to Cape Point and South Point during the breeding season, subject to resource closures using the standard buffer distances. New interdunal roads on South Beach from Ramp 45 to Ramp 49, on Hatteras Inlet Spit extending NE and SW from the southern terminus of Pole Road, and on North Ocracoke Spit from Ramp 59 extending NE toward the inlet would facilitate access to locations that have either seasonal or year-round restrictions on ORV use. Existing soundside access points would remain open with better maintenance than currently occurs. Signage/posts would be installed at the soundside parking areas and boat launch areas to prevent damage to vegetation and other soundside resources. This alternative also involves the addition of parking spaces at several ramp locations.

ORV routes under this alternative would still be subject to temporary resource closures established when protected species breeding behavior warrants and/or if new habitat is created. In addition to the breeding season measures, resource closures and/or vehicle-free areas would be established, based on an annual nonbreeding habitat assessment conducted after the breeding season, to provide areas of nonbreeding shorebird habitat with reduced human disturbance while still allowing a pedestrian or pedestrian/ORV access corridor (common to all alternatives). This would include three “floating” nonbreeding shorebird habitat areas located between Ramps 23 and 34, between Ramps 45 and 49, and south of Ramp 72.

To facilitate access to ORV routes, this alternative would add a new Ramp 39 near Haulover Beach, and extend the existing interdunal road west of ramp 45 all the way to ramp 49 and construct new ramps 47 and 48. A new interdunal road would be constructed on Hatteras Inlet Spit near the southern terminus of the Pole Road with southwesterly and northeasterly extensions parallel to the beach and a new interdunal road on North Ocracoke Spit from Ramp 59 northeasterly toward the inlet. (Note: All action alternatives involve relocating ramp 2, closing ramp 4 and building new ramp 3, and building new ramps 32.5, 62 and 64). Designated ORV routes would be open to ORV use 24 hours a day from November 16 through April

Comment [dw8]: R&A table discusses a trail

Comment [dw9]: Except Buxton

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Comment [dw10]: Need to define northern vs. southern

Comment [dw11]: R&A table says May 14, not March 14.

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Comment [dw12]: Do we need more detail on this?

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Comment [dw13]: R&A table says this area would be between 30-34.

Comment [dw14]: Mentioned in previous paragraph – Berger to address

Comment [dw15]: Global: should ramp be capitalized? To discuss with Sandy and park.

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## CAHA ORV Management Alternatives Narrative, v04/07/09

30. From May 1 through September 15, all 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 NPS turtle patrol has checked the beach in the morning (by approximately ½ hour after sunrise) to provide for sea turtle protection and allow enforcement to concentrate their resources during the daytime hours. From September 16 through November 15, selected ORV routes with no or a low density of turtle nests remaining (as determined by NPS) would re-open to night driving subject to the terms and conditions of a required permit.

ORV safety closures could be designated as conditions warrant and would be evaluated for re-opening by NPS law enforcement staff on a weekly basis. ORV safety closures would be applicable only to ORV access; pedestrian and commercial fishing access would generally be maintained through safety closures. Additional ORV driving requirements would be implemented to provide for increased pedestrian safety in all areas open to ORV use.

**Comment [dw16]:** This is the only alternative that contains specific safety closure requirements

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Alternative F would include a carrying capacity requirement (“peak use limit”) for all areas based on a physical space requirement of one vehicle per 20 linear feet for Bodie Island, Hatteras Island and Ocracoke Island Ranger Districts, except that 400 vehicles would be allowed within a 1 mile area centered on Cape Point. The carrying capacity would be implemented any time that overcrowding could cause safety concerns, such as peak use periods during major summer holidays and weekends. The allowable number of vehicles in each area would be determined by the space requirements and the beachfront length of the area.

Alternative F would include an ORV permit system, with no limits on numbers of permits issued. Permit fees would be determined based on the recovery of NPS costs incurred in managing ORV use. Expected permit fees would be similar to alternative E due to the level of management required for implementation. Both annual and short-term permits would be available under this alternative. To obtain the permit, ORV owners would be required complete a short education program in-person or on-line and pass a basic knowledge test demonstrating their understanding of the rules and regulations governing ORV use at the seashore, beach driving safety, and resource closure requirements. Following completion of the test, the owner would need to sign for their permit to acknowledge that they understand the rules and that all drivers of the permitted vehicle will abide by the rules and regulations governing ORV use at the seashore. A violation of the rules and regulations by the owner or driver of the ORV could result in revocation of the vehicle permit and the owner/permittee would not be allowed to obtain another permit for any vehicle for a specified period of time. In addition to the mandatory education program for ORV users, NPS would establish a voluntary resource education program targeted toward non-ORV beach users.

Every five years NPS would conduct a systematic review of the ORV management measures identified in this alternative as being subject to Periodic Review. This could result in changes to those management actions in order to improve effectiveness.

# CAHA Species Management Table v04/01/09

## Common to All Action Alternatives

CAHA Species Management Table Common to All Action Alternatives	
<b>Definitions</b>	<p><b>Breeding Behavior:</b> Shorebird behavior that includes, but is not limited to, territorial behavior, courtship, mating, scraping, confirmed scrapes, and other breeding or nest building activities.</p> <p><b>Human Disturbance:</b> 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.</p> <p><b>Periodic Review:</b> 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.</p> <p><b>Pre-Nesting Closure:</b> 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.</p> <p><b>Research Area:</b> 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.</p> <p><b>Resource Closure:</b> 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.</p> <p><b>Species Management Area (SMA):</b> 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 one (i.e., two or more) of the past five 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.</p> <ul style="list-style-type: none"> <li>- <b>Breeding Shorebird SMA:</b> 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 one (i.e., two or more) of the past five years <u>and</u> 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.</li> <li>- <b>Nonbreeding Shorebird SMA:</b> Area of suitable nonbreeding habitat that has had concentrated foraging by migrating/wintering shorebirds in more than one (i.e., two or more) of the past five years <u>and</u> is managed to <u>reduce</u> 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</li> </ul>

**Comment [dw1]:** Define "essential vehicle" – Berger to do in glossary

**Comment [dw2]:** Should add sentence about NPS monitoring not being a source of human disturbance, like the Consent Decree did, so as to avoid buffer enlargements from monitoring – to discuss

**Comment [dw3]:** Page 7 says "based on last 3 years" for PIPL



## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

with the opportunity for a natural beach experience.

**Species Management 1 (SM1):** 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.

**Species Management 2 (SM2):** An approach to shorebird protection during the breeding season that will use smaller buffers and require more frequent monitoring and fencing changes when an ORV or pedestrian access corridor is open at designated locations during the breeding season.

Shorebirds			
Management Activity	Piping Plover (PIPL)	American Oystercatcher (AMOY) and Wilson's Plover (WIPL)	Colonial Waterbirds (CWB) include - Least Terns (LETE) - Common Terns (COTE) - Gull-billed Terns (GUTE) - Black Skimmers (BLSK)
<b>Pre-Nesting Surveys</b>	By March 1: NPS staff will evaluate all potential breeding habitat and recommend PIPL pre-nesting closures based on that evaluation.  March 15 – July 15: Survey pre-nesting closures 3 times per week. Outside of pre-nesting closures, survey suitable habitat 2 times per week; increase to 3 times per week once birds are present.	March 15 – July 15 Survey pre-nesting closures 3 times per week.  Outside of pre-nesting closures, survey suitable habitat 2 times per week; increase to 3 times per week once breeding pairs are present.	May 1 – July 15 Survey pre-nesting closures 3 times per week.  Outside of pre-nesting closures, survey suitable habitat 2 times per week; increase to 3 times per week once breeding pairs are present.
<b>Pre-Nesting Closures</b>	<p><u>All Species:</u> All designated Breeding Shorebird SMAs will be posted as pre-nesting closures using symbolic fencing by <b>March 15</b> at sites involving PIPL, WIPL, and/or AMOY; and by <b>April 15</b> at sites involving only CWB. 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>July 31</b>, or two 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><u>SM1:</u> SMAs designated as SM1 would not allow ORV or pedestrian access during the pre-nesting period.</p> <p><u>SM2:</u> The Bodie Island Spit, Cape Point, and South Point Ocracoke SMAs are designated as SM2 in Action Alternatives C, E, and F.</p>		

**Comment [dw4]:** Alt-E has a ped corridor at North Ocracoke Spit

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

	<p>Once pre-nesting closures are implemented at these sites, a narrow ORV access corridor (where ORV use is permitted) or a pedestrian access corridor (<del>where ORV use is not permitted</del>) would be established. Upon the first observation of breeding activity, the standard buffers (Table 1) will apply, which depending upon the circumstances 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 miles 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 and 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 in no case greater than 10 m above the high tide line. Pets, kite flying, ball and Frisbee tossing, or similar activities will be prohibited in the access corridors or pass-through zone while the pre-nesting closure is in effect.</p>
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- Deleted:** where ORV use is not permitted
- Comment [dw5]:** Need to specify where this table is, and label it. – Berger to do
- Deleted:** the
- Comment [dw6]:** Only alternative E has a pass-through zone
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- Comment [dw7]:** Pets are treated differently in each alternative, especially the dates when they are allowed/prohibited

<b>Courtship/Mating Surveys:</b>	Survey pre-nesting closures 3 times per week. Outside of pre-nesting closures, survey suitable habitat 3 times per week once breeding pairs are present.		
<b>Courtship/Mating Buffers:</b>	<p><u>SM1/SM2:</u> If breeding activity is observed outside of an existing closure, establish or expand buffer to ensure 75 m buffer for the observed birds.</p> <p>Buffers will be increased in 50 m increments if human disturbance occurs.</p> <p>Outside of pre-nesting areas, remove closure if no breeding activity is observed for a 2-week period, or when associated breeding activity has concluded.</p>	<p><u>SM1:</u> If breeding activity is observed outside of an existing closure, establish or expand buffer to ensure 300 m buffer for the observed birds.</p> <p><u>SM2:</u> If breeding activity is observed outside of an existing closure, establish or expand buffer to ensure 150 m buffer for the observed birds.</p> <p>Buffers will be increased in 50 m increments if human disturbance occurs.</p> <p><u>All:</u> Outside of pre-nesting areas, remove closure if no breeding activity is observed for a 2-week period, or when associated breeding activity has concluded.</p>	<p><u>SM1:</u> If scraping is observed outside of an existing closure, establish or expand buffer to ensure 300 m buffer for the observed birds.</p> <p><u>SM2:</u> If scraping is observed outside a resource closure, establish a 100 m buffer around the scrape location for LETE (if only LETE are present), or a 200 m buffer when other CWB species are present.</p> <p>Buffers will be increased in 50 m increments if human disturbance occurs.</p> <p><u>All:</u> 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, remove <del>buffer?</del> if no breeding activity is observed for a 2-week period, or when associated breeding activity has concluded.</p>
<b>Nest Surveys:</b>	Conduct “walk through” to look for nests every 3 days.	Conduct “walk through” to look for nests when observations suggest a	Colonies will be surveyed by foot during the “peak” nesting period which generally is during the last week of May and the first week of June,

- Comment [dw8]:** Again, make sure NPS monitoring does not increase buffers
- Comment [dw9]:** Closure establishment is discussed on the previous page
- Deleted:** Closure
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## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

	<p>Once nests are found, observe nests daily from a distance that does not disturb the birds, based on professional judgment. Approach nests once per week to observe and record data.</p>	<p>nest is present.  <u>SM1</u>: Observe nests at least 3 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, check nests on a weekly basis (or as staff is available).  <u>SM2</u>: Observe nests daily from a distance that does not disturb the birds, based on professional judgment. For incubating birds that cannot be observed from a distance, check nests every three days.</p>	<p>but could be later, especially for BLSK.  <u>SM1</u>: Observe colonies at least 3 times per week from a distance that does not disturb the birds. For incubating birds that cannot be observed from a distance, check colonies on a weekly basis.  <u>SM2</u>: Observe nests daily from a distance that does not disturb the birds, based on professional judgment. For incubating birds that cannot be observed from a distance, check colonies every 3 days.</p>
<p><b>Nest Buffers:</b></p>	<p><u>All Species</u>: The park retains the discretion to expand nest buffers under SM1 and SM2 depending on staffing and bird behavior. In unprotected areas, a closure 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, closures will be removed if no breeding activity is seen in the area for two weeks, or 2 weeks after all chicks have fledged, whichever comes later.</p>		
	<p><u>SM1 &amp; SM2</u>: Establish 75 m buffer/closure around nest(s). Buffer will be increased in 50 m increments if human disturbance occurs. If the buffer falls within the intertidal zone a full-beach closure will result.</p>	<p><u>SM1</u>: Establish 300 m buffer/closure around nest(s).  <u>SM2</u>: Establish 150 m buffer/closure around nest(s). Buffer will be increased in 50 m increments if human disturbance occurs. If the buffer falls within the intertidal zone a full-beach closure will result. For nests that occur inside a pre-nesting closure and 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</p>	<p><u>SM1</u>: Buffer will be the same as for courtship and mating – 300 meters.  <u>SM2</u>: Establish 100 m buffer/closure around a LETE nest or colony; or 200 m buffer/closure around nest or colony if any COTE, GUTE, or BLSK are present. Buffer will be increased in 50 m increments if human disturbance occurs. If the buffer falls within the intertidal zone a full-beach closure will result. For a colony that occurs inside a pre-nesting closure and requires a buffer expansion of the pre-nesting area, the buffer expansion may be removed after 2 weeks with no breeding activity</p>

**Comment [dw10]:** Why would you expand a buffer based on staffing? Expand explanation.

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**Comment [dw11]:** What is a "pre-nesting area"? Define? – Berger to do in glossary

**Comment [dw12]:** Should this be "buffer"? If not, should it be under "closure" section?

**Deleted:** to the original pre-nesting closure

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

		nest is lost to overwash or predation.	if the nest is lost to overwash or predation.	
<b>Adult Foraging Surveys &amp; Buffer:</b>	Survey suitable breeding habitat 3 times per week to monitor for adults with an associated scrape or nest territory foraging outside of an existing closure. If observe foraging outside an existing closure, survey the site daily. If observe foraging outside of a closure on 2 consecutive surveys, establish or expand the buffer using flexible increments based on observed bird behavior to include foraging site. These closures are intended to provide foraging opportunities close to breeding sites. Remove closure if no foraging observed for a 2-week period during the breeding season, or when associated breeding activity has concluded.	No additional buffers/closures.	No additional buffers/closures.	<b>Comment [dw13]:</b> How does this differ from the language/intent of the "nest buffer" section for all species?
<b>Unfledged Chicks Surveys:</b>	<p><b>SM1:</b> Observe brood once daily.</p> <p><b>SM2:</b> Observe brood at least 1 hour each in <b>am and pm</b> daily. Have monitor(s) present during periods of ORV or pedestrian access.</p> <p><b>All:</b> Observations end once chicks have fledged. Chicks are considered fledged at 35 days <b>of age</b> or are observed in sustained flight of <b>&gt;15 m</b>.</p>	<p><b>SM1:</b> Observe brood every other day.</p> <p><b>SM2:</b> Observe brood once daily for at least ½ hour.</p> <p><b>All:</b> Observations end once the chicks have fledged. AMOY chicks are considered fledged if they have been observed to be proficient in flying or observed in sustained flight of &gt;30 m. WIPL chicks are considered fledged if they are observed in sustained flight of &gt;15 m.</p>	<p><b>SM1:</b> Observe colony every other day.</p> <p><b>SM2:</b> Observe colony daily.</p> <p><b>All:</b> Colonies will be surveyed by-foot during the "peak" hatching period which should fall 21 days after initial nest observations.</p> <p>A follow-up survey (perimeter count) should be conducted during the "peak" fledge which should fall 20 days after hatch counts.</p> <p>Observations end after no unfledged chicks have been observed on three consecutive surveys.</p>	<b>Comment [dw14]:</b> Should probably use "morning" and "evening" – discuss use of terms
<b>Unfledged Chick Buffers:</b>	<b>SM1:</b> Establish a minimum <b>1000 m buffer</b> on either side of the nest when unfledged chicks are present.	<b>SM1:</b> Establish a <b>300 m buffer</b> around nest when unfledged chicks are present. If chicks move outside of the buffer, it will	<b>SM1:</b> Establish 300 m buffer around nests or colony. If chicks move outside of the buffer, it will be adjusted to include provide a standard	<p><b>Comment [dw15]:</b> Global. Use text instead of symbol. – Berger to address</p> <p><b>Comment [dw19]:</b> Again, ORV and/or ped buffer?</p> <p><b>Comment [dw16]:</b> Does this apply to peds and ORV? Might need to elaborate on buffers.</p>

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

	<p><b>SM2:</b> Establish a 1000 m ORV buffer and where permitted a 300 m pedestrian buffer on either side of the nest when unfledged chicks are present. Buffer moves with chicks.</p> <p><b>All:</b> The buffer should extend 1000 m for ORV (or 300 m for pedestrians <b>under SM2?</b>) on each side of a line drawn through the nest site and perpendicular to the long axis of the beach. The resulting area (2000 m wide for ORV or 600 m wide area for pedestrians) of protected habitat for PIPL chicks <b>would</b> extend from the ocean-side low water line to the sound-side low water line or to the farthest extent of dune habitat if no sound-side intertidal habitat exists.</p>	<p>be adjusted to include an additional 200 m from the chick(s) location. Closure will be removed 2 weeks after fledging.</p> <p><b>SM2:</b> Establish a 200 m buffer around the unfledged chick(s) location. Include foraging and roosting habitat from the ocean (low water line) to the dune (or sound shoreline, if accessible). Adjust/increase buffer as needed when chicks are mobile. Buffer moves with chicks.</p> <p><b>ORV access</b> will not be allowed until WIPL chicks have fledged or 2 weeks after AMOY chicks have fledged (observed flight of 30 meters); a pedestrian corridor may be established prior to <b>the end of the 2 week waiting period</b>, for <b>permitting</b> access to the points and spits.</p>	<p>buffer of 200 m from the chick(s) location.</p> <p><b>SM2:</b> Establish a 200 m buffer around the chick(s) location. Adjust buffer as needed when chicks are mobile.</p>	<p><b>Comment [dw17]:</b> Where what permitted?</p> <p><b>Comment [dw18]:</b> Does "all" mean SM1 and SM2? Not clear.</p> <p><b>Comment [dw20]:</b> ORV access to where?</p> <p><b>Deleted:</b> sh</p> <p><b>Deleted:</b> requirement</p>
	<p><b>All Species:</b> Vehicles and/or pedestrians may be allowed to pass through portions of the <b>protected area</b> that are considered inaccessible to chicks because of steep topography, dense vegetation, or other naturally-occurring obstacles. Reopen access corridor outside of pre-nesting area after chicks fledge (except for AMOYs where the area will remain closed for an additional 2 weeks). Closures can be removed after July 31 or 2 weeks after all breeding activity has ceased or chicks have fledged, whichever is later.</p>			<p><b>Comment [dw21]:</b> This should only apply to SM2 areas, right?</p> <p><b>Comment [dw22]:</b> What is a protected area? Define or reword.</p>
<p><b>Breeding Data Collected/Reported</b></p>	<p>Record the following data:</p> <ul style="list-style-type: none"> <li>- Date, time, location of breeding pairs, courtship behavior, foraging, scrapes, nests 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. Use GPS to</li> </ul>	<p>Record the following data:</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 #; 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,</li> </ul>	<p>Record the following data:</p> <ul style="list-style-type: none"> <li>- Date, time, location, and species of nest/colony observation; identity of observer</li> <li>- Number and location of birds, nests, chicks, and fledglings. Use GPS 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> </ul>	

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

	<p>document nest location.</p> <ul style="list-style-type: none"> <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> <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/<u>nesting pair</u>)</li> </ul>	<p>lost, abandoned, hatching, hatched)</p> <ul style="list-style-type: none"> <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/<u>nesting pair</u>)</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> </ul>
<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. Record the following information: 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 [record source], other); site management in effect where birds are seen; number of pedestrians, pets, ORVs and other potential disturbances.</p>		
<p><b>Nonbreeding Shorebird SMAs</b></p>	<p><u>All Species</u>: Nonbreeding Shorebird SMAs will be established for migrating/wintering shorebirds at <u>various locations throughout the Seashore</u>. Such closures will be installed no later than when breeding season closures are removed at the same location(s). Pets will be prohibited within Nonbreeding Shorebird SMAs.</p> <p><u>Points and Spits</u>: 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 PIPLs in the past <u>3 years</u>, 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 <u>inlet shoreline</u> where permitted will be maintained by a corridor TBD by NPS staff based on the annual habitat assessment.</p> <p><u>Ocean Shoreline Areas</u>: In addition to the <u>nonbreeding</u> 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 <u>shorebirds</u>. These may include wider sections of beach with an upper beach ORV corridor that has a <u>boundary that is</u></p>		

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Comment [dw23]: Is this interchangeable with breeding pair? Need to define or use consistent terminology throughout EIS.

Comment [dw24]: Should we be more specific here?

Comment [dw25]: Page 1 gives a different basis for establishing these areas.

Comment [dw26]: What inlet?

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## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

	<p>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, kite boarding, paddle boarding, photography, picnicking, sailing, shelling, stargazing, sunbathing, surfing, swimming, wildlife viewing and wind surfing. 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><b>Comment [dw27]:</b> Reworded this. Not clear on what the intent/result of the buffer language is. Work with park for new language.</p> <p><b>Deleted:</b> monitoring</p> <p><b>Deleted:</b> uses.</p>
<p><b>Adaptive Management Initiatives</b></p>	<p>NPS would 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 related to shorebirds or shorebird habitat have been identified:</p> <ul style="list-style-type: none"> <li>- <u>PIPL chick fledge rate</u>: Develop an adaptive management study to evaluate the short-term performance target of one (1) 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, determine what management actions (e.g., frequency of monitoring, size or timing of buffers, etc.) need to be changed in order to achieve the desired results.</li> <li>- <u>PIPL chick buffer distance</u>: As stated in the PIPL recovery plan, where several years of data documents that piping plovers on a particular site feed in only certain habitat types, FWS may provide written concurrence that vehicles pose no danger to plovers in other specified habitats on that site. Develop an adaptive management study 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 two weeks after chicks have hatched, would be adequate to prevent disturbance of PIPL chicks by ORVs and/or pedestrians using adjacent areas during daylight hours.</li> <li>- <u>Pass-through buffers during the incubation period</u>: Develop an adaptive management study or studies to evaluate whether a reduced buffer distance is adequate to prevent disturbance caused by ORVs driving past PIPL, AMOY, or CWB nest sites, if all other recreation (e.g., pedestrians, pets, etc.) is prohibited within the reduced buffer; and to determine if a reduced buffer is adequate to prevent disturbance caused by pedestrians walking below the high tide line past PIPL, AMOY, or CWB nest sites.</li> <li>- <u>CWB social attraction</u>: As a pilot project, develop an adaptive management study to evaluate the effectiveness of using CWB decoys and audio-attraction to establish or re-establish CWB colonies in suitable habitat.</li> <li>- <u>Vegetation management</u>: As a pilot project, develop an adaptive management study to evaluate methods for managing vegetation and improving habitat and wildlife access to available habitat in the Cape Point dredge pond area. Determine the applicability and potential effectiveness of such measures at other locations.</li> <li>- <u>Habitat management</u>: As a pilot project, develop an adaptive management study 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</li> </ul>	<p><b>Comment [dw28]:</b> Note: Habitat creation is currently on the Considered But Dismissed list. Is this considered creation?</p> <p>Note to Berger: Discussions have included this, confirm with the park that habitat creation is to be removed from the considered but dismissed list.</p>

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

	<p>water at the site. Determine the applicability and potential effectiveness of such measures at other locations.</p> <ul style="list-style-type: none"> <li>- <u>Enhanced Predator Management</u>: Develop an adaptive management study 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>- <u>Change in Protected Species Status</u>: 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>
<b>Research</b>	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 Area(s) may be authorized under such a permit.
<b>Implementation of Adaptive Management &amp; Research Initiatives</b>	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.
<b>Management Activity</b>	<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 CAHA will follow the direction of NCWRC. Patrol will continue until September 15, or two weeks after the last sea turtle nest or crawl is found, whichever is later.</p> <p>Conduct daily surveys by ATV/UTVs and possibly ORVs for crawls and nests on all beaches generally <u>in the morning</u> before onset of public ORV use. Daily surveys for nests end September 15, or two weeks after the last sea turtle nest or crawl was found, whichever is later. Periodic monitoring (e.g., every two to three days) for unknown nesting and emerging hatchlings will continue, especially in areas of high visitation from that date until November 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 stop when all nests have hatched or excavation indicates that the nest was not viable.</p> <p>Once a light filter fence is installed, monitor nests daily for signs of hatchling emergence.</p>
<b>Sea Turtle Data</b>	<p>As a minimum, follow the North Carolina Wildlife Resources Commission Handbook and record:</p> <ul style="list-style-type: none"> <li>- Date, location, and species of nests and false crawls; identity of observer</li> </ul>

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## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

<b>Collected/Reported</b>	<ul style="list-style-type: none"> <li>- If nest needs 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 nest and hatchlings</li> <li>- Information regarding any post hatching nest excavation and analysis</li> <li>- Examine all nests after hatching to determine productivity rates. Excavate nests in the evening a minimum of 72 hours after hatching event. In cases where hatching events or dates were unknown, unearth nest cavities 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.</li> <li>- 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.</li> </ul>
<b>Nest Closures/ Buffers</b>	<p>Establish a buffer approximately 10 meters by 10 meters with symbolic fencing and signage around nest. Closure size may be modified due to environmental conditions at the nest site.</p> <p>Approximately 50– 55 days into incubation, closures will be expanded to the <u>surf line</u>. 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>a. Vehicle-free areas with little or no pedestrian traffic – 25 meters wide (total width);</li> <li>b. Village <u>beaches</u>, or other areas with high levels of <u>day use</u> – 50 meters wide (total width);</li> <li>c. Areas with ORV traffic – 105 meters wide (total width).</li> </ol> <p>On the landward side of the nest, expand the closed area to 15 meters from the nest where possible, but no less than 10 meters 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 150 feet), 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>Establish a cadre of trained volunteers 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. Due to 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 April 15th, areas deemed unsuitable for turtle nests (i.e. high erosion rate) will be identified by <u>Park staff</u>. 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 will assess need for nest relocation and follow relocation guidance identified in the NCWRC handbook.</p>

**Comment [dw29]:** Define? Low tide line? Average?

**Comment [dw30]:** Is this just ped use, because if there was ORV use, option c would apply.

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**Comment [dw31]:** Do we want to use Seashore instead of Park throughout the EIS? To discuss with park and Sandy.

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

	<p>If it is determined the nest will not be relocated, it will be immediately protected with symbolic fencing and signs and will measure approximately 10 meters by 10 meters in size. Closure size may vary at the discretion of NPS staff due to 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>Respond to sea turtle strandings in a timely manner, and report all information, pictures, and signs of human interaction to NCWRC. Necropsies of strandings will be done when possible.</p>
<b>Light Restrictions</b>	<p>From May 1 through November 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>
<b>Night Driving Restrictions</b>	<p>From May 1 to November 15, all non-essential vehicle use is restricted or prohibited as described in the respective alternatives</p>
<b>Light Management</b>	<p>By May 1, 2012, install <del>turtle-friendly</del> lighting fixtures on all Seashore (NPS) 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>Develop educational material to inform visitors about their impact on the success of sea turtle nests.</p> <p>Work with FWS, NCWRC, and <del>Dare County</del> to encourage development of a turtle friendly lighting ordinance and/or turtle friendly lighting education program for villages within the Seashore on Hatteras Island.</p>

**Comment [dw32]:** Define? Berger to define in Glossary

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**Comment [dw33]:** Do we also want to include Hyde county?

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

<b>Adaptive Management Initiatives</b>	<p>NPS would 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>- Develop an assessment tool to measure ambient artificial lighting along the length of the Seashore, which can be used to re-assess conditions after any management actions (such as a lighting ordinance) are implemented to reduce artificial lighting. After light management actions are implemented, reassess levels of lighting and monitor and evaluate impacts on sea turtle nesting success. If supported by the findings, work toward an incremental adjustment (i.e., increase) in night access to limited select locations where not in conflict with turtle nesting activity.</li> <li>- Develop an adaptive management study to evaluate the level of human disturbance, if any, that might be caused by designating night driving routes to select points and spits, and to develop management tools to minimize impacts to an acceptable level. If supported by the findings, work toward an incremental adjustment (i.e., increase) in night access to limited select locations where not in conflict with turtle nesting activity.</li> <li>- Develop an adaptive management study to determine ways to increase the number of hatchlings that emerge and reach the water</li> </ul>	<p><b>Comment [dw34]:</b> How could findings from light measurements lead to an increase in night driving?</p> <p><b>Deleted:</b> significant</p> <p><b>Deleted:</b> , if any,</p> <p><b>Comment [dw35]:</b> Park and Stay program already provides access to these areas under alternative E.</p> <p><b>Deleted:</b> significant</p>
<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 turtle species that will add to the existing knowledge of sea turtles or improve resource protection within the Seashore. Establishment of Research Area(s) could be authorized under such a permit.</p>	<p><b>Deleted:</b> the respective</p> <p><b>Deleted:</b> may</p>
<b>Implementation of Adaptive Management &amp; 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.</p>	
<b>Management Activity</b>	<b>Seabeach Amaranth (SBA)</b>	
<b>Survey Time and Frequency</b>	<p>July – September: Before removing any shorebird closure or identifying alternate ORV corridors, survey for SBA seedlings/plants.</p> <p>August: Conduct a Seashore-wide annual survey for SBA in all potential habitats. Some shorebird closures may not be surveyed until just prior to re-opening an area to ORV traffic to minimize of disturbance of nesting birds or chicks.</p> <p>End observations when all known SBA plants have died back.</p>	<p><b>Comment [dw36]:</b> What's an alternate ORV corridor?</p> <p><b>Deleted:</b> re-opening</p> <p><b>Deleted:</b> parkwide</p>
<b>Data Collected</b>	<p>Record location of all individual plants or plant clusters using a GPS and note if the plant is located in an area open or closed to recreational use.</p>	

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

<p><b>Buffers</b></p>	<p>June 1 – November 30</p> <p>Prior to June 1, identify suitable SBA habitat at points and spits and delineate with symbolic fencing by June 1 if such areas are not already protected within existing shorebird resource closure(s).</p> <p>If a plant/seedling is found outside of an existing closure, erect symbolic fencing with signage creating a 10 meter by 10 meter buffer around the plant. If plants are located next to each other, the area will be expanded to create one enclosure protecting several plants.</p> <p>If an SBA 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 SBA plants do not exist.</p> <p>If SBA is not present by September 1, SBA buffers will be removed. If SBA is present, buffers will remain until after the plants have senesced, which is typically around December 1.</p>
<p><b>All Species</b></p>	
<p><b>Periodic Review</b></p>	<p>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.</p>

**Comment [dw37]:** Buffer around what? Is this a closure?

**Comment [dw38]:** Add a new row for closures

#### Shorebird / Waterbird Buffer Summary

Species	Breeding Behavior/ Nest Buffer	Unfledged Chicks
	SM1 / SM2	SM1 / SM2
Piping Plover	75 m / 75 m	1000 m / 1000 m (ORV); 300m (Pedestrian)
Wilson's Plover	300 m / 150 m	300 m / 200 m
American Oystercatcher	300 m / 150 m	300 m / 200 m
Least Terns	300 m / 100 m	300 m / 200 m
Other Species CWB	300 m / 200 m	300 m / 200 m

**Comment [dw39]:** Table 1?

**Comment [dw40]:** This is the only one that calls out peds. Are we to assume that all the other buffers are for ORVs only?

## CAHA Species Management Table v04/01/09

### Common to All Action Alternatives

#### Common to All Action Alternatives

**Designated Breeding Shorebird SMAs (as of March 2009). Will be subject to the Periodic Review process, as described above:**

- Bodie Island Spit: 0.2 miles south of Ramp 4 to inlet (est. 1.9 miles)
- Ramp 27 to Ramp 30 (est. 2.1 miles)
- Ramp 32.5 to Ramp 34 (est. 1.5 miles)
- Approximately 2.0 miles south of Ramp 38 to north boundary of Buxton (est. 1.7 miles)
- Cape Point: 0.2 miles south of Ramp 44 to Ramp 45 (est. 2.2 miles)
- South Beach: Ramp 45 to Ramp 47 (est. 1.7 miles)
- Hatteras Inlet Spit: Ocean shoreline south of Pole Road to sound-side of inlet (est. 0.8 miles)
- North Ocracoke Spit: Ramp 59 to inlet (est. 1.4 miles)
- 0.5 miles south of Ramp 68 to 1.2 miles north of Ramp 70 (est. 1.0 mile)
- South Point Ocracoke: 0.5 miles south of Ramp 72 to inlet (est. 2.6 miles)