

October 2010

Visitor Intercept Survey: Off-Road Vehicle Management, Cape Hatteras National Seashore

Final Report

Prepared for

National Park Service
Environmental Protection Specialist
National Park Service—Environmental Quality Division Academy Place
PO Box 25287
Denver, CO 80225

Prepared by

Carol Mansfield
Ross Loomis
Brian Evans
Breda Munoz
RTI International
3040 Cornwallis Road
Research Triangle Park, NC 27709

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Acknowledgments

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Introduction and Survey Goals

The National Park Service (NPS) must develop rules to manage the use of off-road vehicles (ORVs) on the beaches in Cape Hatteras National Seashore (the Seashore).

To support the required analyses and to collect information relevant to park management, NPS contracted with RTI International to conduct a survey of visitors. Out-of-town visitors are extremely important to the local economy. The questions in the visitor survey address specific knowledge gaps related to current use of the park by visitors and the impact of proposed ORV management alternatives on future visitation. In particular, out-of-town visitors who use the beaches at the Seashore were targeted for the survey. The primary goal of the survey was to assess the likelihood that out-of-town visitors will change their trip plans under different management alternatives.

A number of visitor surveys have been conducted at the Seashore in the past few years. Table 1-1 lists the known visitor surveys conducted at the Seashore starting in 2002. Each survey captured a different group of visitors to the Seashore at a different point in time. Information from the

Table 1-1. Visitor Surveys of the Cape Hatteras National Seashore

Survey/Study	Sample	Data Collection Plan	Study Period	Administration Mode	Sponsor
Cape Hatteras National Seashore Visitor Use Study (Vogelsong, 2003)	1,681 surveys completed	On-site and mail-back surveys with visitors (at 23 locations). Study also included counts of visitors (6 locations), parked vehicles (13 locations), ORVs (15 locations), and people per vehicle (2 locations) at designated locations throughout the park.	Data collection from May 2001 to May 2002.	On-site and mail-back surveys	NPS
Outer Banks Group Parks Visitor Study, Cape Hatteras National Seashore Visitors (University of Idaho, 2003)	376 groups contacted, 263 visitor groups mailed back surveys	Intercepted visitors at 8 sites, asked a few questions, distributed survey to mail back	July 12–18, 2002	Intercepted on-site and given mail survey to complete	NPS Visitor Services Project
Lower Outer Banks of NC: Survey of Residents, Nonresident Property Owners, and Visitors (Neal, 2005)	466 residents, 546 nonresident property owners, 438 visitors to Hatteras and Ocracoke islands completed surveys	Survey packets sent to random sample of addresses for residents. Various property management companies and lodging companies set out the survey packets visitors or sent out to nonresident property owners.	September 2002–August 2003	Mail	Outer Banks Preservation Association/American Sportfishing Association

(continued)

Table 1-1. Visitor Surveys of the Cape Hatteras National Seashore (continued)

Survey/Study	Sample	Data Collection Plan	Study Period	Administration Mode	Sponsor
(Strategic Marketing and Research, Inc., 2006)	5,290 completed on-site intercept survey (2,928 summer, 1,968 fall, 209 winter, 185 spring), 1,292 completed follow-up mail survey	On-site intercept of visitors with a follow-up mail survey	2006	On-site and mail-back surveys	Outer Banks Visitors Bureau
Cape Hatteras NS 2008 Visitor Survey Card Data Report (University of Idaho, 2008)	Varied between 40 and 60 respondents per question (16% response rate)	Survey cards distributed to visitors on-site	July 1–July 31, 2008	Survey cards distributed on-site	NPS Visitor Services Project

surveys conducted in 2002 (University of Idaho, 2003) and 2008 (University of Idaho, 2008) was used in the Visitor Experience section of the EIS. Controversy about the surveys conducted by Vogelsong (2003) and Neal (2005) led NPS to commission a peer review of the survey reports. In May 2008, NPS completed an external peer review of these two studies using a panel of five university experts. The panel concluded that the data from the surveys did not provide a sound scientific basis for evaluating the socioeconomic impacts of the action alternatives being considered in the draft EIS. The survey by the Outer Banks Visitors Bureau (Strategic Marketing and Research, Inc., 2006) was conducted before the EIS and the management alternatives were developed.

RTI conducted the new visitor survey between August 2009 and July 2010. To conduct the survey, NPS received an emergency clearance for the Information Collection Request from the Office of Management and Budget (OMB). The OMB clearance number is OMB #1024-0258 with an expiration date of February 28, 2013.

The rest of the report is organized as follows: Section 2 contains background information on previous surveys. Section 3 describes the sample selection process, Section 4 describes the survey instrument design, and Section 5 presents the approach to data collection. Section 6 presents the results of the survey and discussion of the results.

2 Sample Design

2.1 SAMPLE DESIGN

The potential respondent universe for the visitor interviews includes all visitors 18 years of age or older. Two sampling frames were used. The first frame covered the period between August 4, 2009, and March 29, 2010. The frame was modified for interviews conducted between June 15 and July 26, 2010. Visitor groups were intercepted using the protocols described in Section 3.2 based on sampling plans that were stratified by season, location in the park, day of the week, and time of the day. Individual visitors were selected from each group based on their birthday as described in Section 3.

The first frame was all visitors on open beaches in the Seashore from 6 a.m. to 10 p.m., between August 4, 2009, and March 29, 2010. This sampling frame included all the visitors to the ocean-side beaches, except between the hours of 10:00 p.m. and 6:00 a.m. To develop the sampling plan for the first set of interviews (the more inclusive frame), the 68 miles of ocean-side beaches were divided into 168 segments of varying lengths based on the expected number of visitors at the beach segment. To ensure that we had at least one 3-day interview trip taken during the low winter season, we created two seasonal strata out of the 34 weeks in the first sampling frame. Five trips were taken during the first seasonal strata, which consisted of the 17 weeks between August 4 and November 30, 2009. One trip was taken during the lowest visitation seasonal strata, which consisted of the 17 weeks from the beginning of December 2009 through the end of March 2010.

Visitors were sampled on the ocean-side beaches. Scheduled sampling days were based on data supplied by nine housing rental companies on Hatteras Island for occupancy rates by

week for 2007 and counts of visitors on beach sections collected as part of an ongoing effort by RTI to document baseline vehicle use and the number of visitors on different sections of the beach (RTI, 2010). The weeks of intercept surveys were sampled proportionately based on the occupancy data. The beach segments were sampled proportional to the estimated number of beach visitors using the ongoing counts of visitors on the beach, primarily by categorizing beach segments into the following categories:

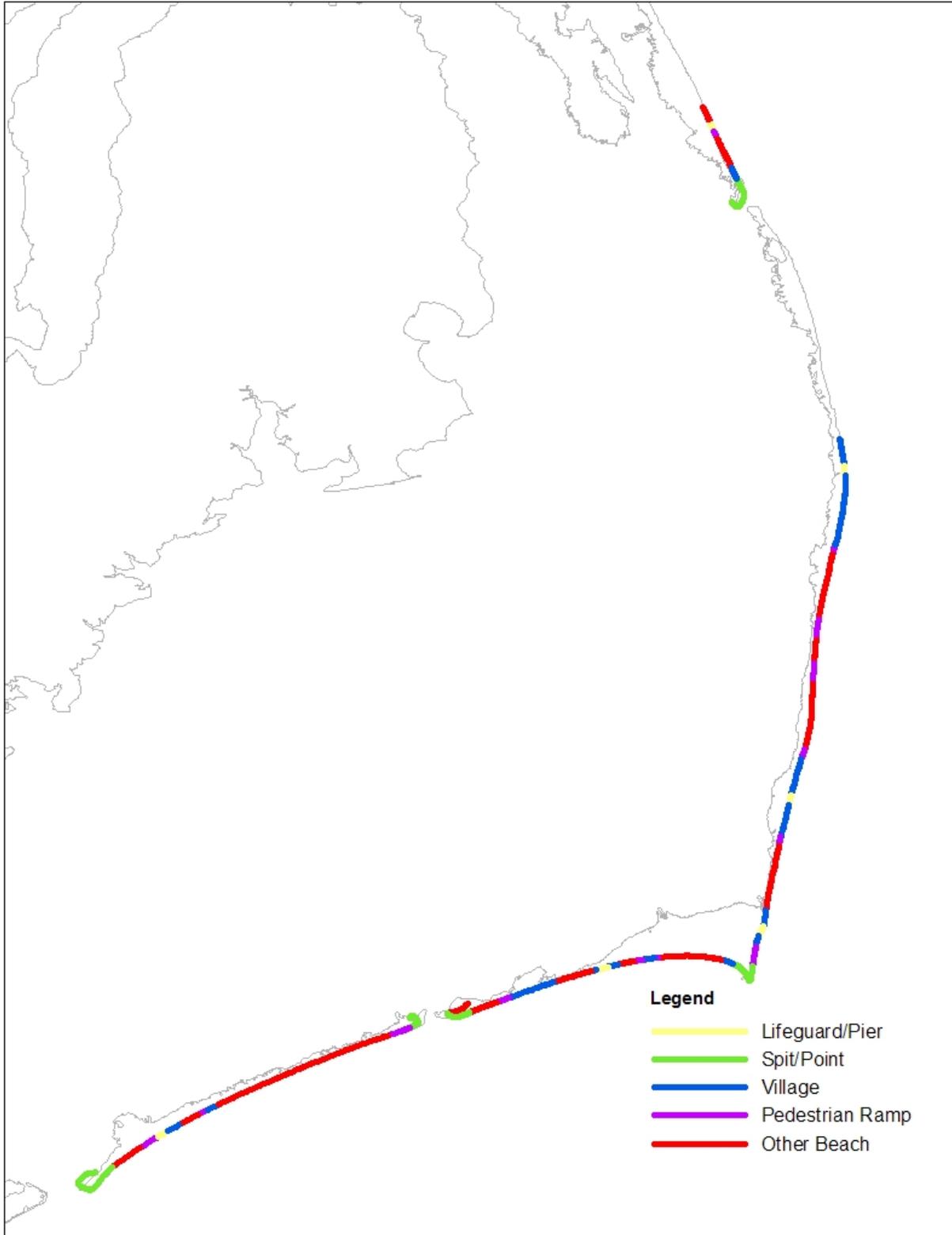
- lifeguard/pier
- village/campground
- pedestrian-friendly vehicle ramp
- spit (inlet) or point
- other beach

The locations of these beach categories are shown in Figure 2-1.

Weekends were sampled at twice the rate of weekdays because information from park staff and from counts of vehicles using the beach indicates that there are about twice as many visitors on the weekend as on weekdays. In the first sampling period, sampling days were divided into four 4-hour time periods from 6 a.m. to 10 a.m., from 10 a.m. to 2 p.m., from 2 p.m. to 6 p.m., and from 6 p.m. to 10 p.m. These time periods were given different probabilities of selection based on the ongoing beach counting data.

Two 4-hour periods were randomly selected for each day that the survey was conducted. The beaches were divided into sections varying in length from 1/16 mile to 3 miles (most of the sections were 1/8 mile) based on the expected number of groups on different sections of the beach with global positioning system (GPS) coordinates for each segment. The beach segments were clustered according to location. One cluster of beach segments was selected for each 4-hour interview time period to allow for easy driving or walking between segments. Interviews were conducted at two beach segments during each 4-hour time period. The start time for surveying on each beach segment was randomized across the 4 hours. This inclusive sampling frame resulted in a low number of interviews per segment, because it included times of day and locations on the beach that were not popular with the majority of visitors.

Figure 2-1. Beach Categories



The sampling plan for the second frame was developed in a similar way. The second sampling frame covered a more narrow set of beaches and times of day to increase the number of interviews per segment and to focus on the population of greatest interest, out-of-town visitors. The sampling frame included visitors at 12 selected beach areas in the Seashore from 10 a.m. to 6 p.m., Friday through Monday between June 15 and July 26, 2010. The 12 selected beach areas were Oregon Inlet Campground, Oregon Inlet, Hatteras Island Pier Beach, Avon Pier Beach, Lighthouse Beach, Cape Point, South Beach, Frisco Pier Beach, Hatteras Inlet (Hatteras), Hatteras Inlet (Ocracoke), Ocracoke Village Beach, and South Point Ocracoke. Interviewers conducted two 3-day trips over this period to collect data.

Similar to the first frame, weekends were sampled at twice the rate of weekdays; however, Tuesdays, Wednesdays, and Fridays were excluded from the frame. Weeks were selected proportional to the rental occupancy data, and the beach areas were selected based on the estimated beach visitors in the underlying beach segments. Since this frame included only two 4-hour segments, each time per day was selected with certainty.

3

Survey Design

The survey instrument was designed primarily to collect information about the visitor's current trip and his/her plans for future trips under two different management alternatives. Three versions of the survey instrument were created for 1) out-of-town visitors on overnight trips, 2) out-of-town visitors on day trips, and 3) local residents of the Outer Banks and Manteo, NC. Appendix A contains the survey instruments. The final versions of the survey were programmed onto a handheld computer.

To maximize response rates to the visitor survey, the instrument was based on input from a number of parties with survey research experience and members of the public and park staff familiar with visitors to the Seashore. The survey was reviewed by the NPS Social Science division, NPS staff, staff at the Seashore, and OMB staff. In addition, RTI incorporated comments received by the public during the public comment period before OMB approved the survey. The reviews and suggested revisions improved the questionnaire wording, shortened the length of the survey, and helped ensure that accurate data were collected. The interviewers were carefully trained in how to sample and make contact with visitors and how to convert initial refusals into completed interviews.

We took several steps to collect information on visitors who refused to participate in the study. The interviewer attempted to ask refusers their zip code or country of residence and also ask (or observe) if the visitor has ever driven a vehicle on the beaches at the Seashore. In addition, any easily observable traits of the visitors (such as group size and presence of children), as well as time of day, day of week, and location of interview, were recorded on a log for each contact for a later comparison of respondents with nonrespondents.

The general pattern for the surveys was as follows:

First set of questions: The interviewer approached the group and attempted to begin the interview. If the selected respondent refuses to participate in the survey, the interviewer attempted to collect information on two questions: zip code (if living in the United States) and "Have you ever driven or gone for a ride in a vehicle on the beach here in Cape Hatteras National Seashore?"

Second set of questions: For respondents who agreed to take the survey, the instrument starts with a question about their zip code and whether they are staying away from home overnight on this trip. These two questions determine the version of the survey the respondent answers. Then the respondents were asked questions about how often they visit the Seashore and whether they plan on returning next year. The questions provide information on the geographic diversity of visitors, distinguish frequent visitors from first-time or infrequent visitors, and identify day visitors and overnight visitors.

Third set of questions: The management questions start by assessing the respondent's knowledge of beach driving in the Seashore and the current restrictions on driving. Then the respondent is presented with one of two questions (randomized across respondents). These questions describe possible management approaches to ORV and pedestrian use in the Seashore and ask the visitor about their likely behavioral response. The two management plans are based on the major features of draft versions of Alternatives D and F (the survey instrument was created before the draft EIS was finalized).

After describing the alternative, respondents were first asked whether they would have made their current trip. Next, respondents were asked if they would have taken more trips, the same number of trips, or fewer trips during the whole year. The impacts of the alternatives were described in words and using maps to show how the alternatives would affect different parts of the beach.

Alternative D was described as follows, using the maps in Appendix B.

"Here is a map of Cape Hatteras National Seashore. During different times of the year, parts of the seashore may be closed

to safeguard the nesting areas of various species of protected sea turtles and shorebirds. Managing the area for visitors can be difficult because the park does not know in advance where the shore birds and sea turtles will nest and when different parts of the beach will need to be closed.

Suppose that under a new plan to manage beach driving the areas in green would be open to vehicles and pedestrians. The green areas would be managed like they currently are. If protected birds or turtles nest on the beach, part or all of the green areas could be closed. If a section of the beach is closed to protect the nests of shorebirds, which usually happens in the spring and early summer, the section of beach will stay closed until mid-July at the earliest or until the birds learn to fly. Turtle nests usually hatch from late-July until late-October. The park monitors the nests and provides weekly updates on which sections of beach are open or closed.

All the areas in blue would be open for pedestrians only. The light blue areas are resource areas designated to support protected birds. Similar to the green areas, if birds nest in these areas, the areas may close to pedestrians during parts of the spring and summer.

[if beach unaffected by alternative during season of interview]
During this season, the plan does not affect management of the area where we are currently standing. It would affect the light blue areas, which would be closed to vehicles even if there were no nests. It would also affect the dark green areas on Ocracoke, which would be open to vehicles during this season if there were no nests.

[if beach affected by the alternative during season of interview]
During this season, the plan affects the area where we are currently standing—[it would be closed to vehicles / it would be open to vehicles]. If the plan on this map had been in place *before* you made any plans or reservations and before you put down any money on deposits for this trip, how likely is it that you would still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

If the plan on this map had been in place *before* you made any plans or reservations for this trip and before you put down any money on deposits, how likely is it that you would still have

taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?" [Questions B09 and B11]

Under this plan, when no protected birds or turtles are nesting all the areas in blue would be closed to vehicles all year and all the areas in green would be open to vehicles all year. Do you think you would have taken more trips to Cape Hatteras National Seashore, fewer trips or the same number as you plan to in 2010?" [Questions B10b and B12b]

Alternative F was described as follows, using the maps in Appendix C.

"Here is a map of Cape Hatteras National Seashore. During different times of the year, parts of the seashore may be closed to safeguard the nesting areas of various species of protected sea turtles and shorebirds. Managing the area for visitors can be difficult because the park does not know in advance where the shore birds and sea turtles will nest and when different parts of the beach will need to be closed.

[THE FOLLOWING TEXT WILL DIFFER DEPENDING ON THE TIME OF YEAR]

Suppose that under a new plan to manage beach driving, the light blue areas on the map would be open to pedestrians, but not vehicles. The dark blue areas would be open to pedestrians only but no vehicles during most of the spring, summer and fall, and open to vehicles when visitation is lower. The areas in green would be open to vehicles and pedestrians year round.

If protected birds or turtles nest on the beach, part or all of an area could be closed. If a section of the beach is closed to protect the nests of shorebirds, which usually happens in the spring and early summer, the section of beach will stay closed until mid-July at the earliest or until the birds learn to fly. Turtle nests usually hatch from late-July until late-October. The park monitors the nests and provides weekly updates on whether the sections of beach are open or closed.

The purple areas will be closed in mid-March as they are under the current rules. They would be opened up to pedestrians and vehicles on August 1 or 2 weeks after the last birds learn how to fly, whichever is later, unless the park can create paths for pedestrians and/or vehicles. Under the new plan the park would work to maintain more pedestrian and vehicle access to these

areas than there is currently by building pedestrian trails, vehicle corridors, building new vehicle access ramps and allowing water taxis to service inaccessible areas. Even with these measures there is no guarantee that the purple areas would be open during the spring and summer, but with the park's actions there would be a better chance for pedestrian and/or vehicle access to parts of the areas that are under current management."

We are here. [POINT TO LOCATION ON MAP] {During this season, the plan affects the area where we are currently standing—it would be closed to vehicles / it would be open to vehicles OR During this season, the plan does not affect management of the area where we are currently standing.}

Suppose you had this information *before* you made any plans or reservations and before you put down any money on deposits for this trip. How likely would you still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely? [*Question B13*]

If the areas in purple were open for pedestrian and vehicle access more days during the spring, summer, and fall, would you have made more trips to Cape Hatteras National Seashore 2010? [*Question B14b*]

Fourth set of questions: These questions asked about the visitor's current trip and his/her uses of other beaches in the United States. There are separate survey items for out-of-town visitors on overnight trips, out-of-town visitors on day trips, and local residents. Because out-of-town visitors bring new money into the local economy, changes in their visitation patterns will have a larger impact.

Fifth set of questions: This question asked for the respondents' willingness to buy a 12-month permit to drive on the beaches at the Seashore for one of three prices (\$10, \$25, and \$100). Respondents were told that revenue from sales would be used to manage beach driving. The prices were randomly assigned so that a visitor responds to only one price. The permit was being considered as part of the action alternatives.

4 Data Collection Methods

The ORV management alternatives will affect visitor use of the beaches. Given the goals of the survey, interviewing needed to be conducted on the beach, rather than at visitor centers, the lighthouse, or other locations in the park. Data collection on beaches presents a number of challenges. There is no one entrance point where people can be intercepted in a systematic fashion following a sampling plan. In addition, the number of people on the beach varies greatly along the length of the beach across seasons.

After researching similar studies and conducting pilot tests, we determined that selecting a segment of beach and interviewing all the groups in that segment represented the most systematic approach that involved the least interviewer judgment in selecting groups to interview. However, because there may be very few visitors on some parts of the beach and during some seasons, it was difficult to set the size of the beach segment. To accommodate the chance that there would be more groups on the beach than the interviewers could interview during a 2-hour block, we determined that interviewers would interview every Nth group on the beach, where N was determined based on the number of groups within a sampled segment.

The visitor survey was conducted by teams of two interviewers using handheld devices to administer in-person computer-assisted questionnaires. The handheld computers were selected over a paper and pencil survey to minimize the amount of materials the interviewers had to carry and for ease with interviewing respondents. RTI trained the interviewers on the data collection protocol. The interviewers conducted a set of pilot interviews while being observed by the field staff manager. A scoping trip to the Seashore took place in October 2008 to

identify beaches and beach uses. This information was used to assess the feasibility of different sampling methods. A pretest took place in December and January involving nine visitors to evaluate and improve the procedures and the survey instrument. Finally, a pilot test was undertaken in August 2009 to test the final procedures and instrument.

The process was as follows:

- Use GPS receivers to identify the beginning of the sampled section of beach, and plant a flag at the start of the section.
- Interviewer 1: Start by walking along the dune line (or driving in long, ORV-accessible segments) and counting the number of groups on the beach and in the water until the end of the segment is reached. Plant a flag at the end of the segment.
- Based on the pilot test, it was determined that 12 interviews could be conducted in the 2-hour time frame by the two interviewers. If there were more than 12 groups in the segment, then the interviewers would interview every Nth group (for example, every fifth group). Based on the number of groups on the beach segment, the handheld computer calculated N and randomly selected the group where interviewing started (between 1 and N, where the first group was the group located closest to the dune line on the right side of the segment if one is facing the ocean).
- Interviewers 1 and 2: After counting, determine the sampling ratio (i.e., interview every 1 in N groups).
- Interviewers 1 and 2: Start interviewing groups based on the sampling ratio.
- To interview:
 - Stand in the approximate middle of the beach between the dune line and water on the boundary of the beach segment. Imagine a line along the boundary of the segment from the dune to the water, and approach the sampled group.
 - Approach and ask for participation.
 - Ask who is in the “group,” including members who might be in the water.
 - Ask to interview the member of the group 18 years of age or older who has the next birthday.

- Walk forward and approach the Nth group following a serpentine pattern starting with the group closest to the dune line (or back of the beach) on the right side of the segment and moving right to left (if facing the ocean) until the end of the segment is reached. Then move toward the ocean to the next row of groups and move left to right interviewing the Nth group until reaching the last group.
- If time permits and/or there are initially fewer than 12 groups in a segment, go back through the segment interviewing groups that were not present during the first pass through the segment following the same pattern as above.
- For safety reasons, do not interview individuals in moving vehicles, but do interview groups sitting near parked vehicles.

Interviewers would complete four segments per day spending approximately 2 hours in each segment. Multiple factors affected how long the interviewing team stayed in a segment, including the number of people in the segment, the weather, and the season.

As data were keyed into the handheld device, they were automatically saved in the case management system on the device itself. Upon completion of each segment, the interviewers would internally back up the case management system to save all data. The interviewers would also save the data from the case management system on a memory card, ensuring all data collected were saved multiple times.

5 Results

This section describes the results from the survey. Section 5.1 discusses the response rate and compares people who responded with those who did not. The results are presented in Section 5.2. Section 5.3 presents a summary of the survey responses and comments received from respondents. The data from the visitor survey are one source of information used to establish the range of possible values for different parameters. Other sources include publicly available secondary data on visitation and economic conditions. The visitor survey and other data sources are combined to create reasonable ranges for the parameters in the economic model. We plan to use several sources of information, because no single source provides all the data we need, and each source has positive and negative features. Concern has been expressed that the visitors may answer the survey strategically to influence the outcome of the economic analysis. The questions in the survey and comparisons with other data sources are used to identify and mitigate against the influence of strategic responses.

5.1 RESPONSE RATE

Table 5-1 provides the sample size and the response rate. The total response rate for the intercept survey is 76%. Based on the beach-type categories shown in Figure 2-1, the response rate varied between 69% on pedestrian ramp segments and 86% on lifeguard/pier segments (ORV beach segments aggregates the spits/points and other beach segments shown in Figure 2-1). Of the refusals, only four respondents provided additional demographic information, so we were unable to conduct additional nonresponse analysis.

Table 5-1. Response Rate and Sample Size by Beach Type

Segment Area	Completes	Total	Response Rate
Lifeguard/pier	95	111	86%
ORV beach	30	39	77%
Pedestrian ramp	44	64	69%
Village/campground	76	108	70%
Total	245	322	76%

5.2 RESULTS

For the economic analysis, we are primarily interested in the behavior of visitors from out of the area. However, everyone on a particular beach segment was sampled regardless of where they lived. In this section we present the results for out-of-town visitors unless otherwise specified. Appendix D contains the data collected from local residents (people living in Manteo or on the Outer Banks).

The results from the survey presented in Tables 5-2 through 5-11 represent weighted means and 95% confidence intervals using the sampling weight for each observation. The results can be generalized to the whole sampling frame but not outside the sampling frame (for example, late night hours were not included in the sampling frame and only beaches were included in the sampling frame, not the lighthouse). One caution, visitors who spend more time on the beach have a higher probability of being selected for the survey because they are physically present on the beach for more time. The results reported below have not been adjusted for this potential bias.

5.2.1 Trip and Visitor Characteristics

The survey started with questions about the visitor's trips to Cape Hatteras. Table 5-2 shows, on average, that respondents visit the Seashore more than one time a year, and they have made a trip to the Seashore in 8 of the last 10 years. Based on the responses to the question in the last row, the visitors are likely to return next year.

Table 5-3 summarizes responses to the questions about the trip the visitor was on when he/she was intercepted for the survey. Only 12% of respondents were on their first trip to the Seashore, which fits with the information presented in Table 5-2. Almost 99% of the respondents were on an overnight trip away from home. The sampling frame was

designed to capture out-of-town visitors, because their travel behavior has the biggest impact on the local economy. In general, visitors spend most of the day on the beach, with a mean of about 5 hours. Forty-three percent of the respondents said that either they or someone in their group had driven on the beach as part of the current trip, although the 95% confidence interval is large for this question. In terms of visiting other ocean beaches, only 9% had visited another beach in North Carolina (all located south of the Outer Banks), but 56% had been to an ocean beach in another state in the last year.

Table 5-4 provides information for out-of-town visitors staying overnight on the Outer Banks. The mean length of the visitors' current trips was approximately a week. Only a small percentage of visitors were staying in a village north of the Seashore, and 67% of visitors were staying in a rental house.

The survey included questions about the parts of the beach visited by out-of-town visitors, reported in Table 5-5. The most visited stretch of beach on the visitors' current trips was from Rodanthe to Buxton, followed by the beach from Buxton to Cape Point. On average, visitors had visited 4.3 of the 12 beach areas described in the survey, and had plans to visit an additional 1.2 of the beach areas. If visitors did not indicate that they had visited or planned to visit a beach area, they were also asked whether they had ever been to that stretch of beach. Over 70% had been to Ocracoke on a past trip.

The survey asked about activities that the respondent had participated in on the current trip and about the primary activity for their trip. According to the survey results in Table 5-6, the most popular activities at the Seashore were "swimming, sunbathing, or enjoying the beach" and "bird watching/wildlife watching." An estimated 41% and 38% of visitors in the sampling population, respectively, participated in the activities "driving on the beach during the day" and "beach fishing," both of which are potentially affected by new ORV management. Table 5-7 lists the weighted percentage of the sample that selected each activity as their primary activity for the trip. The most popular activities for local residents were "swimming, sunbathing, or enjoying the beach" and "driving on the beach during the day" (Table D-5). Beach fishing was the primary purpose of the trip for 23% of visitors. No one selected "bird watching/wildlife watching" as their primary activity.

Table 5-2. Trips to Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Question ^a	Response	Mean	95% Confidence	95% Confidence
			Interval	Interval
			Lower Bound	Upper Bound
How many trips have you made to the whole Outer Banks area so far this year, including parts of the Outer Banks north of Cape Hatteras National Seashore?	Value	3.23	1.14	5.32
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%
How many of these trips included a visit to some part of Cape Hatteras National Seashore?	Value	3.09	1.02	5.16
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%
How many trips did you make to Cape Hatteras National Seashore in 2008?	Value	2.51	1.32	3.70
	Don't know	0.1%	0.0%	0.2%
	Refuse	0.0%	0.0%	0.0%
How many trips did you make to Cape Hatteras National Seashore in 2007?	Value	2.54	1.28	3.81
	Don't know	1.1%	0.0%	2.7%
	Refuse	0.0%	0.0%	0.0%
Are you planning to make any more trips to Cape Hatteras National Seashore in (CURRENT YEAR)?	Yes	25.7%	16.8%	34.6%
	No	69.0%	60.2%	77.8%
	Don't know	5.2%	0.0%	11.8%
	Refuse	0.1%	0.0%	0.2%
How many more trips do you think you will make to Cape Hatteras National Seashore in (CURRENT YEAR)? ^b	Value	1.75	1.38	2.12
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%
In the last 10 years, how many years have you made at least one trip to Cape Hatteras National Seashore?	Value	7.55	6.98	8.12
	Don't know	0.1%	0.0%	0.2%
	Refuse	0.0%	0.0%	0.0%

(continued)

Table 5-2. Trips to Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Question ^a	Response	Mean	95% Confidence Interval	
			Lower Bound	Upper Bound
How likely are you to visit the Cape Hatteras National Seashore next year? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?	Very likely	82.9%	74.0%	91.9%
	Somewhat likely	9.8%	2.4%	17.3%
	Somewhat unlikely	2.2%	0.0%	5.1%
	Very unlikely	5.0%	1.8%	8.3%
	Don't know	0.1%	0.0%	0.2%
	Refuse	0.0%	0.0%	0.0%

^aSample includes all those out-of-town visitors who have visited Cape Hatteras before, unless otherwise noted.

^bSample includes out-of-town visitors who have visited Cape Hatteras before and plan to take more trips to Cape Hatteras in the current year.

Table 5-3. Trip Characteristics, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Question ^a	Response	Mean	95% Confidence	95% Confidence
			Interval	Interval
			Lower Bound	Upper Bound
What country do you live in?	United States	96.1%	91.9%	100.0%
	Canada	2.1%	0.0%	5.3%
	Other	1.8%	0.0%	4.7%
On this trip, are you staying overnight away from home?	Yes	98.7%	97.2%	100.0%
	No	1.3%	0.0%	2.8%
Is this your first trip to Cape Hatteras National Seashore?	Yes	12.1%	2.0%	22.2%
	No	87.9%	77.8%	98.0%
How many adults 18 and over are (ON THE CURRENT TRIP)?	Value	3.56	3.10	4.02
How many children are (ON THE CURRENT TRIP)?	Value	0.75	0.39	1.10
How many hours do you plan to spend on the beach today?	Value	5.23	4.70	5.75
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%
Has anyone in your group driven a vehicle on the beach during this trip?	Yes	43.2%	29.7%	56.8%
	No	56.8%	43.2%	70.3%
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%
Have you made trips to any other ocean beaches in North Carolina, south of Ocracoke Island in the last 12 months?	Yes	8.8%	4.5%	13.1%
	No	91.2%	86.9%	95.5%
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%
Have you made trips to any other ocean beaches anywhere in the U.S. in the last 12 months?	Yes	55.7%	43.0%	68.4%
	No	44.3%	31.6%	57.0%
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%

^aSample includes all out-of-town visitors.

Table 5-4. Overnight Stay Questions, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Question ^a	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
How many nights will you spend on the Outer Banks during this trip?	Value	7.98	6.54	9.41
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%
What village are you staying in?	Rodanthe	4.9%	0.0%	9.9%
	Waves	7.9%	0.0%	20.7%
	Salvo	7.9%	1.3%	14.4%
	Avon	19.3%	0.0%	39.7%
	Buxton	6.6%	0.0%	13.7%
	Frisco	6.8%	0.0%	13.9%
	Hatteras	13.8%	0.5%	27.0%
	Ocracoke	28.5%	0.0%	60.4%
	Kitty Hawk or Nags Head	2.7%	0.0%	6.4%
	Southern Shores or Duck	0.2%	0.0%	0.8%
	Corolla or Areas North of Corolla	0.0%	0.0%	0.1%
	Manteo or Roanoke Island	0.0%	0.0%	0.0%
	Other	1.3%	0.0%	3.4%
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%

(continued)

Table 5-4. Overnight Stay Questions, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Question ^a	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
What type of lodging are you staying in?	Hotel/motel/rental condo, or timeshare	10.9%	4.7%	17.0%
	Bed and breakfast	0.0%	0.0%	0.0%
	Your own vacation home	8.8%	4.1%	13.5%
	A house you rented	66.9%	58.4%	75.4%
	Campground	11.9%	3.7%	20.0%
	With friends or family who live here	0.5%	0.0%	1.6%
	In vacation house belonging to friends or family	0.7%	0.0%	1.9%
	Other	0.4%	0.0%	1.3%
	Don't know	0.0%	0.0%	0.0%
	Refuse	0.0%	0.0%	0.0%

^aSample includes all out-of-town visitors staying overnight away from home.

Table 5-5. Areas Visited at Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Areas	Statistic	Have you visited this area already on this trip and if not, do you plan to visit the area later in your trip? ^a					Have you ever been to the this area? ^b			
		Yes, I Have Visited The Area Already	No, But I Plan To Visit The Area On This Trip	No	Don't Know	Refuse	Yes	No	Don't Know	Refuse
Area north of Oregon Inlet and vehicle ramp 4?	Mean	32.8%	5.6%	61.3%	0.3%	0.0%	63.2%	36.8%	0.0%	0.0%
	Lower bound	19.3%	0.6%	50.0%	0.0%	0.0%	45.3%	18.8%	0.0%	0.0%
	Upper bound	46.3%	10.5%	72.5%	1.0%	0.0%	81.2%	54.7%	0.0%	0.0%
The point of Oregon Inlet (south of vehicle ramp 4)?	Mean	21.6%	5.0%	73.4%	0.0%	0.0%	59.5%	39.1%	1.4%	0.0%
	Lower bound	12.3%	1.9%	65.1%	0.0%	0.0%	41.5%	21.2%	0.0%	0.0%
	Upper bound	30.9%	8.0%	81.8%	0.0%	0.0%	77.5%	57.1%	3.5%	0.0%
Rodanthe to Buxton?	Mean	65.5%	5.3%	29.2%	0.0%	0.0%	59.1%	40.9%	0.0%	0.0%
	Lower bound	47.5%	1.4%	11.2%	0.0%	0.0%	35.1%	17.0%	0.0%	0.0%
	Upper bound	83.6%	9.2%	47.2%	0.0%	0.0%	83.0%	64.9%	0.0%	0.0%
Ocean side of Hatteras Island *north* of the Cape Hatteras Lighthouse to Buxton?	Mean	49.1%	10.8%	40.2%	0.0%	0.0%	70.3%	29.7%	0.0%	0.0%
	Lower bound	33.0%	2.6%	24.7%	0.0%	0.0%	48.4%	7.7%	0.0%	0.0%
	Upper bound	65.1%	18.9%	55.7%	0.0%	0.0%	92.3%	51.6%	0.0%	0.0%
Ocean side of Hatteras Island *south* of the Cape Hatteras Lighthouse to Cape Point?	Mean	44.3%	13.8%	41.5%	0.4%	0.0%	68.4%	31.6%	0.0%	0.0%
	Lower bound	28.3%	4.5%	24.4%	0.0%	0.0%	43.5%	6.7%	0.0%	0.0%
	Upper bound	60.3%	23.0%	58.6%	1.3%	0.0%	93.3%	56.5%	0.0%	0.0%
Cape Point area?	Mean	31.6%	13.8%	53.9%	0.6%	0.0%	57.8%	41.5%	0.6%	0.0%
	Lower bound	18.8%	4.2%	40.5%	0.0%	0.0%	33.8%	17.1%	0.0%	0.0%
	Upper bound	44.4%	23.4%	67.4%	1.9%	0.0%	81.8%	65.9%	1.9%	0.0%
South Beach to the last vehicle access ramp on Hatteras Island (ramp 55)?	Mean	31.3%	7.8%	59.9%	1.0%	0.0%	48.2%	51.1%	0.7%	0.0%
	Lower bound	18.7%	1.5%	46.6%	0.0%	0.0%	31.6%	34.1%	0.0%	0.0%
	Upper bound	43.9%	14.1%	73.2%	2.6%	0.0%	64.8%	68.1%	2.3%	0.0%
Hatteras Inlet at the end of Hatteras Island	Mean	32.5%	8.2%	58.7%	0.6%	0.0%	49.3%	50.0%	0.8%	0.0%
	Lower bound	18.8%	1.7%	45.8%	0.0%	0.0%	30.8%	31.2%	0.0%	0.0%
	Upper bound	46.1%	14.7%	71.7%	1.9%	0.0%	67.7%	68.7%	2.4%	0.0%

(continued)

Table 5-5. Areas Visited at Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Areas	Statistic	Have you visited this area already on this trip and if not, do you plan to visit the area later in your trip? ^a					Have you ever been to the this area? ^b			
		Yes, I Have Visited The Area Already	No, But I Plan To Visit The Area On This Trip	No	Don't Know	Refuse	Yes	No	Don't Know	Refuse
North Ocracoke Spit, which is the south side of Hatteras Inlet on Ocracoke Island?	Mean	36.7%	16.6%	46.7%	0.0%	0.0%	72.1%	26.9%	0.9%	0.0%
	Lower bound	15.7%	5.3%	29.3%	0.0%	0.0%	59.3%	14.5%	0.0%	0.0%
	Upper bound	57.6%	28.0%	64.1%	0.0%	0.0%	84.9%	39.4%	2.9%	0.0%
Ocracoke from vehicle ramp 59 south to vehicle ramp 72?	Mean	42.5%	16.6%	40.9%	0.0%	0.0%	70.0%	25.8%	4.2%	0.0%
	Lower bound	17.6%	5.1%	21.2%	0.0%	0.0%	55.6%	13.8%	0.0%	0.0%
	Upper bound	67.4%	28.2%	60.6%	0.0%	0.0%	84.4%	37.8%	9.5%	0.0%
Ramp 72 to South Point at the end of Ocracoke Island?	Mean	40.6%	16.3%	43.0%	0.0%	0.0%	68.8%	30.1%	1.1%	0.0%
	Lower bound	16.6%	4.9%	24.0%	0.0%	0.0%	54.8%	17.2%	0.0%	0.0%
	Upper bound	64.7%	27.7%	62.1%	0.0%	0.0%	82.8%	43.0%	3.2%	0.0%
The Sound side of Cape Hatteras?	Mean	32.1%	12.6%	55.0%	0.0%	0.0%	59.8%	40.2%	0.0%	0.0%
	Lower bound	17.1%	4.1%	43.6%	0.0%	0.0%	39.0%	19.4%	0.0%	0.0%
	Upper bound	47.0%	21.0%	66.5%	0.0%	0.0%	80.6%	61.0%	0.0%	0.0%
Any other parts of the National Seashore?	Mean	0.0%	0.0%	99.7%	0.2%	0.0%				
	Lower bound	0.0%	0.0%	99.3%	0.0%	0.0%				
	Upper bound	0.1%	0.0%	100.0%	0.7%	0.0%				

^a Sample includes all out-of-town visitors

^b Sample includes out of town visitors who have not visited or plan to visit the area this trip.

Table 5-6. What Activities Have You Done So Far This Trip? Mean Estimate and 95% Confidence Interval

Activity	Mean	95% Confidence Interval Low	95% Confidence Interval High
Pier fishing	5.5%	0.4%	10.6%
Beach fishing	37.5%	25.6%	49.4%
Charter (offshore) fishing	1.8%	0.0%	4.4%
Swimming, sunbathing, or enjoying the beach	99.4%	98.0%	100.0%
Surfing or kite-surfing	17.2%	4.2%	30.3%
Birdwatching/wildlife-viewing	70.7%	63.2%	78.2%
Take a ferry	38.5%	10.7%	66.2%
Visit the Cape Hatteras Lighthouse or Bodie Island Lighthouse	22.6%	9.0%	36.2%
Visit historic sites in Cape Hatteras National Seashore	18.4%	9.3%	27.4%
Canoeing, kayaking, or sailing	6.2%	1.8%	10.7%
Driving on the beach during the day?	40.7%	27.2%	54.2%
Driving on the beach at night after 10 p.m.	4.5%	0.7%	8.3%
Other	12.4%	2.0%	22.8%

Table 5-7. What Is Your Primary Activity for This Trip? Mean Estimate and 95% Confidence Interval

Activity	Mean	Low	High
Beach fishing	22.8%	7.3%	38.2%
Swimming, sunbathing, or enjoying the beach	63.2%	48.8%	77.6%
Surfing or kite-surfing	6.9%	0.0%	16.5%
Visit the Cape Hatteras Lighthouse or Bodie Island Lighthouse	0.5%	0.0%	1.3%
Driving on the beach during the day	0.7%	0.0%	1.9%
Other	6.0%	0.0%	13.0%

5.2.2 ORV Management Question Results

The survey contained questions specifically about driving on the beach and management of beach driving. Table 5-8 shows that awareness of beach driving among visitors to the Seashore is high, with 92% aware that some Seashore beaches are open to vehicles. However, fewer visitors (59%) were aware that some

Table 5-8. Knowledge and Impact of Current Management Mean Estimate and 95% Confidence Interval

Question	Answer	Mean	Low	High
Before you arrived at Cape Hatteras National Seashore for this trip, did you know that some beaches at Cape Hatteras National Seashore were open to vehicles?	Yes	91.6%	84.0%	99.3%
	No	8.1%	0.5%	15.8%
	Don't know	0.2%	0.0%	0.6%
Before you arrived at Cape Hatteras National Seashore for this trip, did you know that certain parts of the seashore that have been open to vehicles in the past are now closed to vehicles during parts of the spring, summer and fall?	Yes	58.7%	47.3%	70.0%
	No	40.1%	28.4%	51.9%
	Don't know	1.2%	0.0%	2.7%
How would you say the uncertainty about whether specific parts of the seashore would be open to vehicles affected when you started planning for this trip?	Didn't affect	93.4%	88.1%	98.7%
	Farther in advance	1.8%	0.0%	3.9%
	Made plans closer to the time of the trip	4.2%	0.2%	8.2%
	Don't know	0.6%	0.0%	1.5%

beaches previously open to vehicles were now closed at some point during the year. Current management of ORVs did not affect the planning of trips for 93% of visitors, although this includes visitors who did not know that beaches that had been open to driving in the past might now be closed.

As described in Section 4, the interviewers described some of the main features of a draft of Alternative D with a map to show the affected areas. When asked if they would have made their current trip if Alternative D had been in place, 33% of visitors reported that it is very or somewhat unlikely that they would have taken their current trip to the Seashore, although the 95% confidence interval ranges from 14% to 51%. Out of this 33%, 12% of visitors reported they would have gone to a different beach outside of North Carolina, while 8% would have stayed home (Table 5-9). Eleven percent of local residents reported that it is very or somewhat unlikely that they would have taken their current trip to the Seashore. Fourteen percent of local residents reported that they would have taken fewer trips to the Seashore in the current year under this plan (Table D-3).

Table 5-9. Reported Impact of Alternative D

Question	Answer	Mean	Low	High
If the plan on this map had been in place *before* you made any plans or reservations for this trip and before you put down any money on deposits, how likely is it that you would still have taken this trip?	Very likely/somewhat likely	67.3%	49.1%	85.6%
	Somewhat unlikely/very unlikely	32.7%	14.4%	50.9%
What do you think you most likely would have done instead? ^a	Go to another part of the Outer Banks	4.8%	0.0%	12.5%
	Go to a different beach in North Carolina	0.8%	0.0%	1.9%
	Go to a different Beach outside North Carolina	12.0%	2.3%	21.7%
	Go to somewhere else, but not an ocean beach	0.5%	0.0%	1.5%
	Stay home	7.9%	0.0%	16.9%
	Don't know	6.7%	0.0%	18.8%

^aSample includes all respondents who answered somewhat or very unlikely to previous question.

When presented with a description of ORV management under a draft version of Alternative F (a draft of Alternative F before the Draft EIS was published), 94% of visitors reported that they would likely still have taken their current trip to the Seashore (Table 5-10). If the plan were successful in providing vehicle access for more days during the spring, summer, and fall, 79% of local residents reported they would have made more trips to the Seashore (Table D-3).

Finally, Table 5-11 reports responses to a question about whether the visitor would buy a permit to drive on the beach at a given cost. The cost was randomly varied between \$10, \$25, and \$100. Respondents were asked:

As part of new proposals for managing beach driving, the park may institute a permit system for beach driving. Drivers could purchase a 12-month permit for {Cost}. The money collected from the permits would be used to manage beach driving. If required for beach driving, would you have paid {Cost} to buy a 12-month permit for this trip?

As expected, the percentage of visitors who said they would purchase a permit declined from 74% to 28% as the cost increased from \$10 to \$100. Among visitors who reported driving on the beach during their current trip, the percentage willing to buy a permit was higher. Even among visitors who did

Table 5-10. Reported Impact of Draft Alternative F

Question	Answer	Mean	Low	High
If the plan on this map had been in place *before* you made any plans or reservations for this trip and before you put down any money on deposits, how likely is it that you would still have taken this trip?	Very likely/somewhat likely	93.5%	86.2%	100.0%
	Somewhat unlikely/very unlikely	6.3%	0.0%	13.6%
	Don't know	0.2%	0.0%	0.4%
What do you think you most likely would have done instead?	Go to another part of the Outer Banks	0.1%	0.0%	0.2%
	Go to a different beach in North Carolina	0.2%	0.0%	0.5%
	Go to a different beach outside North Carolina	0.5%	0.0%	1.1%
	Go to somewhere else, but not an ocean beach	2.3%	0.0%	7.2%
	Stay home	3.3%	0.0%	8.3%
	Don't know	0.0%	0.0%	0.1%

not report driving a vehicle on the beach on their current trip, 62% said they would buy a permit for \$10.

5.3 SUMMARY

Conducting interviews on a beach with no defined entry and exit points creates a number of challenges. For this survey, RTI created a data collection plan designed to yield a representative sample of visitors for the locations and times included in the sampling frames. The sampling plans were stratified by season, location in the park, day of the week, and time of the day. Individual visitors were selected from each group based on their birthday as described in Section 3.

As described in Section 2, the first frame included all visitors on all open beaches in the Seashore from 6 a.m. to 10 p.m., between August 4, 2009, and March 29, 2010. The first frame included areas of the Seashore and times of the day and week when few visitors were on the beaches. For the final 2 months of interviews, June 15 and July 26, 2010, the frame was modified to focus on more crowded times of day (10 a.m. to 6 p.m., Friday through Monday). In addition, the set of beaches was narrowed to 12 selected beach areas in the Seashore that included any beaches open to ORVs, village beaches, and lifeguarded beaches. Although the second frame includes fewer

Table 5-11. Responses to Driving Permit Question by Value and Sample, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Sample	Response	Mean	\$10		Mean	\$25		Mean	\$100	
			95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound		95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound		95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
All out-of-town visitors	Yes	73.8%	52.3%	95.3%	54.1%	39.1%	69.2%	27.5%	10.7%	44.3%
	No	25.4%	4.1%	46.8%	39.7%	26.7%	52.7%	71.6%	54.8%	88.3%
	Don't know	0.8%	0.0%	2.4%	6.1%	0.0%	15.1%	0.9%	0.0%	2.3%
	Refuse	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Out-of-town visitors reporting driving on beach this trip	Yes	84.7%	70.7%	98.7%	70.2%	46.6%	93.8%	44.6%	22.9%	66.2%
	No	15.3%	1.3%	29.3%	25.3%	1.3%	49.4%	53.1%	31.4%	74.8%
	Don't know	0.0%	0.0%	0.0%	4.5%	0.0%	13.5%	2.3%	0.0%	7.2%
	Refuse	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Out of town visitors not reporting driving on beach this trip	Yes	61.9%	32.2%	91.6%	43.1%	30.8%	55.4%	21.7%	0.0%	44.2%
	No	36.4%	6.9%	66.0%	49.6%	35.2%	64.0%	77.8%	55.4%	100.0%
	Don't know	1.7%	0.0%	5.0%	7.3%	0.0%	22.5%	0.4%	0.0%	1.3%
	Refuse	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

locations and hours during the day, counts of vehicle trips and visitors on different segments of the beach, combined with comments from park staff and the public indicate that the frame includes the great majority of visitors to the Seashore's ocean-side beaches.

The results presented in Section 5 represent the weighted means and 95% confidence intervals. The observations were weighted by the probability of inclusion in the sample (the probability that a particular season, location, day, and time were selected). The estimates can be generalized to visitors on the beaches and at the times of day included in the combined sampling frames. The 95% confidence intervals capture the uncertainty in the mean estimates.

Overall, the sample included mostly visitors who live outside the Outer Banks and Manteo. The mean estimates describe a population of visitors who mostly come for a week and stay in a rental house, although the sample certainly contained visitors on day-trips and who stayed in other types of lodging. The pattern varies across the seasons; however, the mean estimates reflect the fact that most visitors come during the summer months. Visitors intercepted on the beaches tended to stay in the villages adjacent to the Seashore.

While over 90% of visitors knew that vehicles were allowed on the beach, 40% did not know that some beaches that had been open to vehicles in the past might be closed in the spring, summer, or fall under current management. Just over 40% of the respondents reported that they or someone in their group drove on the beach during their current trip.

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Appendix A: Survey Instrument

Cape Hatteras Study

Visitor Intercept Survey

Specs Version for Full Study

March 10, 2010

Version 5.1

Specification Key

Instructions to the interviewer are enclosed in square brackets "[" and "]". Text within these brackets should not be read aloud and is always capitalized.

Programming instructions are enclosed with angle brackets "<" and ">". These are instructions used for programming the instrument. They include skip patterns, ranges, field lengths, field types, and other instructions.

Question text can include fills. Fills are variables that are set earlier in the questionnaire and used to complete later questions. Fills are enclosed with "{" and "}".

Status Codes

Each interview must have a final status code (record of call(ROC)). Final codes start with a "2". Records with a final status code cannot be reopened.

102 – pending breakoff (this is an interim code, interview may be reopened)

200 – completed interview

201 – completed refusal questions

202 – break-off: not complete (this would be if they were doing an interview, it starting raining, and they never got back with the person, for example)

203 – break-off: refused (this would be if the person decided they didn't want to do anymore)

204 – Other (interviewer should clarify in the ROC notes.)

PreSurvey Questions

PreWeather

[ENTER CURRENT WEATHER CONDITIONS]

- 1 SUNNY
- 2 PARTLY CLOUDY
- 3 OVERCAST
- 4 RAINY
- 5 T'STORM
- 6 WINDY

PreTemperature

PreTemperature

[ENTER CURRENT TEMPERATURE]

- 1 <30
- 2 30-40
- 3 40-50
- 4 50-60
- 5 60-70
- 6 70-80
- 7 80-90
- 8 90-100
- 9 100+

PreGroupCount

PreGroupCount

[ENTER NUMBER OF GROUPS IN CURRENT SEGMENT]

```
<set {SegSize} = {PreGroupCount};  
set {Interval} = Int((({SegSize}-1)/12) + 1);  
Set {Rnum} = Rnd();  
Set {Rnum} = {Rnum}/100;  
Set {RandStart} = {Rnum}*{Interval};  
Set {RandStart} = Int({RandStart})+1;  
OutputVars(SegSize, Interval, Rnum, RandStart);
```

PreGroupDisplay

PreComp

<

```
SET {RANDVERSION} = "{PARM4}";
```

```
If {RANDVERSION} = "1" and {AffectedA} = "1" then SET {D10Fill} = "it would be closed to vehicles";
```

```
If {RANDVERSION} = "1" and {AffectedA} = "2" then SET {D10Fill} = " ";
```

```
If {RANDVERSION} = "1" and {AffectedA} = "3" then SET {D10Fill} = "it would be open to vehicles";
```

```
If {RANDVERSION} = "2" and {AffectedB} = "1" then SET {D10Fill} = "During this season, the plan affects the area where we are currently standing -- it would be closed to vehicles";
```

```
If {RANDVERSION} = "2" and {AffectedB} = "2" then SET {D10Fill} = " During this season, the plan would not affect the area where we are currently standing ";
```

```
If {RANDVERSION} = "2" and {AffectedB} = "3" then SET {D10Fill} = " During this season, the plan affects the area where we are currently standing – it would be open to vehicles";
```

```
SET {CostFill} = " ";
```

```
IF {PARM3} = "1" THEN SET {CostFill} = "$10 ";
```

```
IF {PARM3} = "2" THEN SET {CostFill} = "$25 ";
```

```
IF {PARM3} = "3" THEN SET {CostFill} = "$100";
```

```
set {IntStart}=now();
```

```
set {CurrentMonth} = DatePart("m", "{IntStart}");
```

```
OutputVars(IntStart, CurrentMonth, CostFill, RANDVERSION, PARM3, PARM4);
```

INTRO00

Intro

INTRO00

Hi, my name is {FINAME}. I work for Research Triangle Institute, a nonprofit research institute located in Raleigh, North Carolina. We are conducting an interview to help the National Park Service understand how different park management decisions affect people's visits to Cape Hatteras National Seashore.

INTRO01

INTRO01

According to my instructions, I need to interview the person in your group who is at least 18 years old and has the next birthday. Who is that?

[NEXT BIRTHDAY IS DETERMINED BY...]

INTRO02

INTRO02

The interview should take about 10 minutes. All of your answers are completely voluntary and you can stop at any time. However, since we are only talking to a sample of visitors, each survey is very important.

We do not need your name or any other personal information that could identify you, so your answers will be anonymous. Here is a card with the telephone number for the study manager and the people at RTI's office who protect the rights of people who participate in research studies if you have any questions.

Also, I need to make you aware that the Paperwork Reduction Act requires approval of all federal government surveys by the Office of Management and Budget. This survey has been approved under this Act. The Office of Management and Budget control number and expiration date are available at your request. Additional information about this survey and its approval is available at your request.

IntroA01

IntroA01

Okay, let's get started.

[CHECK YES IF THEY ALLOW THE INTERVIEW TO START, CHECK NO IF THEY REFUSE]

- 1 YES <if {IntroA01} = "1" then goto A01;>
2 NO

IntroB01

IntroB01

Even a few questions would help us make sure we have a representative sample. For our records, do you currently live in the United States?

- 1 YES
- 2 NO <IF INTROB01 = 2 THEN SKIP TO INTROB03>
- 9 DON'T KNOW <IF INTROB01 = -9 THEN SKIP TO INTROB03>
- 7 REFUSE <IF INTROB01 = -7 THEN SKIP TO E01>

INTROB02**IntroB02**

What is your primary residence zip code?

<RANGE: 00001 TO 99999, -7, -9>

INTROC01**IntroB03**

What country do you live in?

- 1 UNITED STATES <if {IntroB03} = "1" then goto IntroB02;>
- 2 CANADA
- 99 OTHER <if {IntroB03} = "99" then goto IntroB03Specify;>
- 9 DON'T KNOW
- 7 REFUSE

INTROC01**IntroB03Specify**

(What country do you live in?)

[SPECIFY COUNTRY]

<TEXT >

IntroC01**IntroC01**

And one more question -- have you ever driven or gone for a ride in a vehicle on the beach here in Cape Hatteras National Seashore?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

E01

SECTION A. DETERMINE APPROPRIATE SURVEY

A01

Do you live in the United States?

- 1 YES <IF A01 = 1 THEN SKIP TO A01a>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

A01b

A01a

What is your primary residence zip code?

< IF {#A01a} = 27915 or {#A01a} = 27920 or {#A01a} = 27927 or {#A01a} = 27936 or {#A01a} = 27943 or {#A01a} = 27948 or {#A01a} = 27949 or {#A01a} = 27953 or {#A01a} = 27954 or {#A01a} = 27959 or {#A01a} = 27960 or {#A01a} = 27968 or {#A01a} = 27972 or {#A01a} = 27978 or {#A01a} = 27981 or {#A01a} = 27982 THEN GOTO D01Years; INTEGER, RANGE: 00001 – 99999, -7 -9>

A02

A01b

What country do you live in?

- 1 UNITED STATES < IF A01b = 1 THEN GOTO A01a>
- 2 CANADA
- 99 OTHER <IF A01b = 99 THEN GOTO A01bSpecify>
- 9 DON'T KNOW
- 7 REFUSE

A02

A01bSpecify

(What country do you live in?)

[SPECIFY COUNTRY]

<TEXT >

A02

A02

On this trip, are you staying overnight away from home? (Home is defined as your primary residence.)

[IF DON'T KNOW OR REFUSED YOU MAY ASK (The survey questions are a little different for people staying overnight and people on day trips. Are you staying overnight away from your primary residence?)]

1 YES

2 NO <NO SKIP NEEDED >

<IF {A02} = "1" THEN SET {B15Fill} = "staying with you in the same house, campsite, or hotel room";

IF {A02} = "2" THEN SET {B15Fill} = "traveling with you on this trip today ";>

B03

SECTION B. OUT-OF-TOWN VISITORS ON AN OVERNIGHT TRIP SURVEY \ OUT-OF-TOWN RESIDENTS ON A DAY TRIP SURVEY

B03

Is this your first trip to Cape Hatteras National Seashore?

- 1 YES <IF A01 = 1 THEN SKIP TO B08>
2 NO
-9 DON'T KNOW
-7 REFUSE

B04

B04

How many trips have you made to the whole Outer Banks area so far this year, including parts of the Outer Banks north of Cape Hatteras National Seashore?

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER, RANGE: 01 – 150,-7, -9, IF {B04} = "-9" OR {B04} = "-7" THEN GOTO B06;>

B05

B05

How many of these trips included a visit to some part of Cape Hatteras National Seashore? Only count visits to the National Seashore, not visits to other beaches on the Outer Banks.

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

QxQ – CAPE HATTERAS NATIONAL SEASHORE INCLUDES THE LAND SOUTH OF WHALEBONE JUNCTION AND NAGS HEAD, BETWEEN RAMP 2 AND RAMP 72.

<INTEGER, RANGE: 00 – 150, -7, -9.
IF {#B05} > {#B04} THEN GOTO B05ERROR>

B06

B05ERROR

[ERROR, THE RESPONSE TO B05 MUST BE LESS THAN OR EQUAL TO B04]

B04

B06

How many trips did you make to Cape Hatteras National Seashore in 2008?

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER, RANGE: 00 – 150, -7, -9>

B06b**B06b**

How many trips did you make to Cape Hatteras National Seashore in 2007?

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER, RANGE: 00 – 150, -7, -9>

B06d**B06d**

Are you planning to make any more trips to Cape Hatteras National Seashore in 2010?

- 1 YES <IF B06d = 1 THEN SKIP TO B06e>
2 NO
-9 DON'T KNOW
-7 REFUSE

B07**B06e**

How many more trips do you think you will make to Cape Hatteras National Seashore in 2010?

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER RANGE: 00 – 150, -7, -9>

B07**B07**

In the last 10 years, how many years have you made at least one trip to Cape Hatteras National Seashore? Again, only count visits to the National Seashore, not visits to other beaches on the Outer Banks.

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER, RANGE: 00 – 10, -7, -9>

B08

B08

How likely are you to visit the Cape Hatteras National Seashore next year? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

- 1 VERY LIKEY
- 2 SOMEWHAT LIKELY
- 3 SOMEWHAT UNLIKELY
- 4 VERY UNLIKELY
- 9 DON'T KNOW
- 7 REFUSE

B08a**B08a**

Now we want to describe some plans to manage vehicles on the beach in Cape Hatteras National Seashore.

Before you arrived at Cape Hatteras National Seashore for this trip, did you know that some beaches at Cape Hatteras National Seashore were open to vehicles?

- 1 YES <if {B08a} = "1" then goto B08b;>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B08Comp**B08b**

Before you arrived at Cape Hatteras National Seashore for this trip, did you know that certain parts of the seashore that have been open to vehicles in the past are now closed to vehicles during parts of the spring, summer and fall?

- 1 YES <if {B08b} = "1" then goto B08c;>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B08Comp

B08c

How would you say the uncertainty about whether specific parts of the seashore would be open to vehicles affected when you started planning for this trip? Would you say that because of the uncertainty you made plans farther in advance, the uncertainty did not affect your planning for this trip, or you made your plans closer to the time of your trip?

- 1 FARTHER IN ADVANCE
- 2 DIDN'T AFFECT
- 3 MADE PLANS CLOSER TO THE TIME OF THE TRIP
- 9 DON'T KNOW
- 7 REFUSE

B08d**B08d**

Did you get any information on beach closings before you made this trip?

- 1 YES <IF B08b = 1 THEN GOTO B08e>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B08Comp**B08e**

Did you get your information about beach closings from the Cape Hatteras National Seashore website, by calling the National Seashore, from another website, from friends, or from another source?

- 1 CAPE HATTERAS WEBSITE
- 2 CALLING CAPE HATTERAS PARK OFFICE
- 3 ANOTHER WEBSITE
- 4 FRIENDS
- 5 ANOTHER SOURCE
- 9 DON'T KNOW
- 7 REFUSE

B08Comp**B08Comp**

< IF {RANDVERSION} = "2" THEN GOTO B13INFO;>

Respondents randomly assigned either Version A (#9 - 12) or Version B (#13-14)

B08INFO

B08INFO

Here is a map of Cape Hatteras National Seashore. During different times of the year, parts of the seashore may be closed to safeguard the nesting areas of various species of protected sea turtles and shorebirds. Managing the area for visitors can be difficult because the park does not know in advance where the shore birds and sea turtles will nest and when different parts of the beach will need to be closed.

Suppose that under a new plan to manage beach driving the areas in green would be open to vehicles and pedestrians. The green areas would be managed like they currently are. If protected birds or turtles nest on the beach, part or all of the green areas could be closed. If a section of the beach is closed to protect the nests of shorebirds, which usually happens in the spring and early summer, the section of beach will stay closed until mid-July at the earliest or until the birds learn to fly. Turtle nests usually hatch from late-July until late-October. The park monitors the nests and provides weekly updates on which sections of beach are open or closed.

All the areas in blue would be open for pedestrians only. The light blue areas are resource areas designated to support protected birds. Similar to the green areas, if birds nest in these areas, the areas may close to pedestrians during parts of the spring and summer.

(The dark blue areas are high visitation areas.)

We are here [POINT TO MAP].

[WE ARE ASKING ABOUT THIS TRIP ONLY SO THE MAPS REPRESENT WHAT THE BEACH WOULD LOOK LIKE RIGHT NOW]

QxQ - If people want to know if the beach would be closed all year, tell them that we are only asking about this trip, we are not asking about trips later in the year.

<IF {AFFECTEDA} = "1" or {AFFECTEDA} = "3" THEN GOTO B11>

B09

B09

During this season, the plan does not affect management of the area where we are currently standing. It would affect the light blue areas, which would be closed to vehicles even if there were no nests. It would also affect the dark green areas on Ocracoke, which would be open to vehicles during this season if there were no nests.

If the plan on this map had been in place *before* you made any plans or reservations for this trip and before you put down any money on deposits, how likely is it that you would still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

- 1 VERY LIKEY
- 2 SOMEWHAT LIKELY
- 3 SOMEWHAT UNLIKELY
- 4 VERY UNLIKELY
- 9 DON'T KNOW
- 7 REFUSE

<IF B09 = 1 OR 2 OR -9 OR -7 THEN GOTO B10b>

B10**B10**

What do you think you most likely would have done instead? Would you go to another part of the Outer Banks, go to a different beach in North Carolina, go to a different beach outside North Carolina, go somewhere else-but not an ocean beach, or stay home?

- 1 GO TO ANOTHER PART OF THE OUTER BANKS
- 2 GO TO A DIFFERENT BEACH IN NORTH CAROLINA
- 3 GO TO A DIFFERENT BEACH OUTSIDE NORTH CAROLINA
- 4 GO SOMEWHERE ELSE, BUT NOT AN OCEAN BEACH
- 5 STAY HOME
- 9 DON'T KNOW
- 7 REFUSE

B10b**B10b**

Under this plan, when no protected birds or turtles are nesting all the areas in blue would be closed to vehicles all year and all the areas in green would be open to vehicles all year. Do you think you would have taken more trips to Cape Hatteras National Seashore, fewer trips or the same number as you plan to in 2010?

- 1 I WOULD HAVE TAKEN MORE TRIPS
- 2 I WOULD HAVE TAKEN THE SAME NUMBER
- 3 I WOULD HAVE TAKEN FEWER TRIPS
- 9 DON'T KNOW
- 7 REFUSE

B15Adults

B11

During this season, the plan affects the area where we are currently standing – {D10Fill}. If the plan on this map had been in place *before* you made any plans or reservations and before you put down any money on deposits for this trip, how likely is it that you would still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

- 1 VERY LIKEY
- 2 SOMEWHAT LIKELY
- 3 SOMEWHAT UNLIKELY
- 4 VERY UNLIKELY
- 9 DON'T KNOW
- 7 REFUSE

<if {B11} = "1" or {B11} = "2" or {B11} = "-9" or {B11} = "-7" then goto B12b;>

B12**B12**

What do you think you most likely would have done instead? Would you go to another part of the Outer Banks, go to a different beach in North Carolina, go to a different beach outside North Carolina, go somewhere else-but not an ocean beach, or stay home?

- 1 GO TO ANOTHER PART OF THE OUTER BANKS
- 2 GO TO A DIFFERENT BEACH IN NORTH CAROLINA
- 3 GO TO A DIFFERENT BEACH OUTSIDE NORTH CAROLINA
- 4 GO SOMEWHERE ELSE, BUT NOT AN OCEAN BEACH
- 5 STAY HOME
- 9 DON'T KNOW
- 7 REFUSE

B12b

B12b

Under this plan, when no protected birds or turtles are nesting all the areas in blue would be closed to vehicles all year and all the areas in green would be open to vehicles all year. Do you think you would have taken more trips to Cape Hatteras National Seashore, fewer trips or the same number as you plan to in 2010?

- 1 I WOULD HAVE TAKEN MORE TRIPS
- 2 I WOULD HAVE TAKEN THE SAME NUMBER
- 3 I WOULD HAVE TAKEN FEWER TRIPS
- 9 DON'T KNOW
- 7 REFUSE

B15Adults**B13Info**

Here is a map of Cape Hatteras National Seashore. During different times of the year, parts of the seashore may be closed to safeguard the nesting areas of various species of protected sea turtles and shorebirds. Managing the area for visitors can be difficult because the park does not know in advance where the shore birds and sea turtles will nest and when different parts of the beach will need to be closed.

[THE FOLLOWING TEXT WILL DIFFER DEPENDING ON THE TIME OF YEAR]

Suppose that under a new plan to manage beach driving, the light blue areas on the map would be open to pedestrians, but not vehicles. The dark blue areas would be open to pedestrians only but no vehicles during most of the spring, summer and fall, and open to vehicles when visitation is lower. The areas in green would be open to vehicles and pedestrians year round.

If protected birds or turtles nest on the beach, part or all of an area could be closed. If a section of the beach is closed to protect the nests of shorebirds, which usually happens in the spring and early summer, the section of beach will stay closed until mid-July at the earliest or until the birds learn to fly. Turtle nests usually hatch from late-July until late-October. The park monitors the nests and provides weekly updates on whether the sections of beach are open or closed.

The purple areas will be closed in mid-March as they are under the current rules. They would be opened up to pedestrians and vehicles on August 1 or 2 weeks after the last birds learn how to fly, which ever is later, unless the park can create paths for pedestrians and/or vehicles. Under the new plan the park would work to maintain more pedestrian and vehicle access to these areas than there is currently by building pedestrian trails, vehicle corridors, building new vehicle access ramps and allowing water taxis to service inaccessible areas. Even with these measures there is no guarantee that the purple areas would be open during the spring and summer, but with the park's actions there would be a better chance for pedestrian and/or vehicle access to parts of the areas that are under current management.

B13

B13

We are here. [POINT TO LOCATION ON MAP] {D10Fill}.

Suppose you had this information *before* you made any plans or reservations and before you put down any money on deposits for this trip. How likely would you still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

- 1 VERY LIKEY
- 2 SOMEWHAT LIKELY
- 3 SOMEWHAT UNLIKELY
- 4 VERY UNLIKELY
- 9 DON'T KNOW
- 7 REFUSE

<if {B13} = "1" or {B13} = "2" or {B13} = "-7" or {B13} = "-9" then goto B14b;>

B14**B14**

What do you think you most likely would have done instead? Would you go to another part of the Outer Banks, go to a different beach in North Carolina, go to a different beach outside North Carolina, go somewhere else-but not an ocean beach, or stay home?

- 1 GO TO ANOTHER PART OF THE OUTER BANKS
- 2 GO TO A DIFFERENT BEACH IN NORTH CAROLINA
- 3 GO TO A DIFFERENT BEACH OUTSIDE NORTH CAROLINA
- 4 GO SOMEWHERE ELSE, BUT NOT AN OCEAN BEACH
- 5 STAY HOME
- 9 DON'T KNOW
- 7 REFUSE

B14b**B14b**

If the areas in purple were open for pedestrian and vehicle access more days during the spring, summer, and fall, would you have made more trips to Cape Hatteras National Seashore 2010?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B15Adults

B15Adults

Now we have a few questions about your current trip.

How many adults 18 and over are {B15Fill}?

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER, RANGE: 00 – 99, -7, -9>

B15Children**B15Children**

How many children are {B15Fill}

[PEOPLE 17 AND UNDER ARE CONSIDERED CHILDREN
FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER, RANGE: 00 – 99, -7, -9>

B15Comp**B15Comp**

< If {A02} = "2" then goto B19a; >

B16**B16**

How many nights will you spend on the Outer Banks during this trip?

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER, RANGE: 00 – 99, -7, -9>

B16Month**B16Month**

What date did this trip start?

[ENTER MONTH ON THIS SCREEN AND DAY ON THE NEXT SCREEN

FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER 1-12>

B16Day

B16Day

(What date did this trip start?)

[ENTER DAY ON THIS SCREEN
FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<INTEGER 1-31>

B17**B17**

What village are you staying in? [READ LIST CHECK ONLY ONE RESPONSE]

Is it Rodanthe, Waves, Salvo, Avon, Buxton, Frisco, Hatteras, Ocracoke, Kitty Hawk or Nags Head, Southern Shores or Duck, Corolla or areas north of Corolla, Manteo or Roanoke Island, or other?

- 1 RODANTHE
- 2 WAVES
- 3 SALVO
- 2 AVON
- 5 BUXTON
- 6 FRISCO
- 7 HATTERAS
- 8 OCRACOKE
- 9 KITTY HAWK OR NAGS HEAD
- 10 SOUTHER SHORES OR DUCK
- 11 COROLLA OR AREAS NORTH OF COROLLA
- 12 MANTEO OR ROANOKE ISLAND
- 99 OTHER <If {B17} = "99" then goto B17Specify; >
- 9 DON'T KNOW
- 7 REFUSE

B18**B17Specify**

(What village are you staying in?)

[SPECIFY VILLAGE]

<TEXT >

B18

B18

What type of lodging are you staying in? [READ LIST, CHECK ONLY ONE RESPONSE]

Is it a Hotel/motel/rental condo, or timeshare, Bed and breakfast, Your own vacation home, A house you rented, Campground, With friends or family who live here, In vacation house belonging to friends or family, or Other?

- 1 HOTEL/MOTEL/RENTAL CONDO, OR TIMESHARE
- 2 BED AND BREAKFAST
- 3 YOUR OWN VACATION HOME
- 4 A HOUSE YOU RENTED
- 5 CAMPGROUND
- 6 WITH FRIENDS OR FAMILY WHO LIVE HERE
- 7 IN VACATION HOUSE BELONGING TO FRIENDS OR FAMILY
- 99 OTHER < If {B18} = "99" then goto B18Specify;>
- 9 DON'T KNOW
- 7 REFUSE

< ATextFSize=(07,10);>

B19a**B18Specify**

(What lodging are you staying in?)

[SPECIFY LODGING]

<TEXT >

B19a**B19a**

Now we have some questions about places you have visited or plan to visit on this trip or have visited in the past.

Have you visited the area north of Oregon Inlet and vehicle ramp 4 already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH, READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

< If {B19a} = "1" OR {B19a} = "2" then goto B19B;>

B20a

B20a

Have you ever been to the ...

Area north of Oregon Inlet and vehicle ramp 4?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19b**B19b**

Have you visited the point of Oregon Inlet (south of vehicle ramp 4) already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

< If {B19b} = "1" OR {B19b} = "2" then goto B19c;>

B20b**B20b**

Have you ever been to ...

The point of Oregon Inlet (south of vehicle ramp 4)?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19c

B19c

Have you visited the Rodanthe to Buxton area already on this trip and if not, do you plan to visit the area later in your trip?

[PRONOUNCED "ROW DAN THEE"]

SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH, READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

< If {B19c} = "1" OR {B19c} = "2" then goto B19d;>

B20c**B20c**

Have you ever been to ...

Rodanthe to Buxton?

[PRONOUNCED "ROW DAN THEE"]

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19d**B19d**

Have you visited the ocean side of Hatteras Island *north* of the Cape Hatteras Lighthouse to Buxton already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH, READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

< If {B19d} = "1" OR {B19d} = "2" then goto B19e;>

B20d

B20d

Have you ever been to ...

Ocean side of Hatteras Island *north* of the Cape Hatteras Lighthouse to Buxton?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19e**B19e**

Have you visited the Ocean side of Hatteras Island *south* of the Cape Hatteras Lighthouse to Cape Point already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

<IF B19e = 1 OR 2 THEN SKIP TO B19f>

B20e**B20e**

Have you ever been to ...

Ocean side of Hatteras Island *south* of the Cape Hatteras Lighthouse to Cape Point?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19f

B19f

Have you visited the Cape Point area already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

<IF B19f = 1 OR 2 THEN SKIP TO B19g>

B20f**B20f**

Have you ever been to ...

Cape Point area?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19g**B19g**

Have you visited the area from South Beach to the last vehicle access ramp on Hatteras Island (ramp 55) already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

<IF B19g = 1 OR 2 THEN SKIP TO B19h>

B20g

B20g

Have you ever been to ...

South Beach to the last vehicle access ramp on Hatteras Island (ramp 55)?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19h**B19h**

Have you visited Hatteras Inlet at the end of Hatteras Island already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

<IF B19h = 1 OR 2 THEN SKIP TO B19i>

B20h**B20h**

Have you ever been to ...

Hatteras Inlet at the end of Hatteras Island

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19i

B19i

Have you visited North Ocracoke Spit, which is the south side of Hatteras Inlet on Ocracoke Island already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

<IF B19i = 1 OR 2 THEN SKIP TO B19j>

B20i**B20i**

Have you ever been to ...

North Ocracoke Spit, which is the south side of Hatteras Inlet on Ocracoke Island?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19j**B19j**

Have you visited Ocracoke from vehicle ramp 59 south to vehicle ramp 72 already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

<IF B19j = 1 OR 2 THEN SKIP TO B19k>

B20j

B20j

Have you ever been to ...

Ocracoke from vehicle ramp 59 south to vehicle ramp 72?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19k**B19k**

Have you visited the area from Ramp 72 to South Point at the end of Ocracoke Island already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
- 2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
- 3 NO
- 9 DON'T KNOW
- 7 REFUSE

<IF B19k = 1 OR 2 THEN SKIP TO B19l>

B20k**B20k**

Have you ever been to ...

Ramp 72 to South Point at the end of Ocracoke Island?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B19l

B19l

Have you visited The Sound side of Cape Hatteras already on this trip and if not, do you plan to visit the area later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED THE AREA ALREADY
2 NO, BUT I PLAN TO VISIT THE AREA ON THIS TRIP
3 NO
-9 DON'T KNOW
-7 REFUSE

<IF B19l = 1 OR 2 THEN SKIP TO B19m>

B20l**B20l**

Have you ever been to ...

The Sound side of Cape Hatteras?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

B19m**B19m**

Are there any other parts of the National Seashore that you have already visited on this trip or that you plan to visit later in your trip?

[SHOW PICTURE OF PLACES LABELED INCLUDING SECTIONS OF BEACH,
READING THROUGH LIST WHILE POINTING TO MAP]

- 1 YES, I HAVE VISITED OTHER AREAS ALREADY
2 NO, BUT I PLAN TO VISIT OTHER AREAS ON THIS TRIP
3 NO
-9 DON'T KNOW
-7 REFUSE

<IF B19m = 1 OR 2 THEN SKIP TO B19Specify >

B21a

B19Specify

(On this trip have you visited any other parts of the National Seashore?)

[SPECIFY PLACES ON THE OUTER BANKS WHERE THEY HAVE VISITED SO FAR]

<TEXT >

B21a

B21a

What activities have you done so far on this trip?

Pier fishing?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B21b

B21b

(What activities have you done so far on this trip?)

Beach fishing?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B21c

B21c

(What activities have you done so far on this trip?)

Charter (offshore) fishing?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B21d

B21d

(What activities have you done so far on this trip?)

Swimming, sunbathing, or enjoying the beach?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

B21e**B21e**

(What activities have you done so far on this trip?)

Surfing or kite-surfing?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

B21f**B21f**

(What activities have you done so far on this trip?)

Birdwatching/wildlife-viewing?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

B21g**B21g**

(What activities have you done so far on this trip?)

Take a ferry?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

B21h

B21h

(What activities have you done so far on this trip?)

Visit the Cape Hatteras Lighthouse or Bodie Island Lighthouse?

- 1 YES
 2 NO
 -9 DON'T KNOW
 -7 REFUSE

B21i**B21i**

(What activities have you done so far on this trip?)

Visit historic sites in Cape Hatteras National Seashore?

- 1 YES
 2 NO
 -9 DON'T KNOW
 -7 REFUSE

B21j**B21j**

(What activities have you done so far on this trip?)

Canoeing, kayaking, or sailing?

- 1 YES
 2 NO
 -9 DON'T KNOW
 -7 REFUSE

B21k**B21k**

(What activities have you done so far on this trip?)

Driving on the beach during the day?

- 1 YES
 2 NO
 -9 DON'T KNOW
 -7 REFUSE

< SET B22Fill = " ";

IF B21k =1 THEN SET B22Fill = " else " >

B21l

B21l

(What activities have you done so far on this trip?)

Driving on the beach at night after 10pm?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

<IF B21L =1 THEN SET B22Fill = " else " >

B21m**B21m**

Have you done any other beach\recreational activities so far on this trip?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

< SET {ActivitySpecify} = " ";
IF {B21m} = "1" THEN GOTO B21Specify;>

B21n**B21Specify**

(Have you done any other beach\recreational activities so far on this trip?)

[ENTER OTHER BEACH\RECREATIONAL ACTIVITIES DONE SO FAR ON THIS TRIP]

<TEXT set {ActivitySpecify} = {B21Specify};>

B21n

B21n

Of the activities you just mentioned, what is your primary activity for *this* trip?

- 1 PIER FISHING
- 2 BEACH FISHING
- 3 CHARTER (OFFSHORE) FISHING
- 4 SWIMMING, SUNBATHING, OR ENJOYING THE BEACH
- 5 SURFING OR KITE-SURFING
- 6 BIRDWATCHING/WILDLIFE-VIEWING
- 7 TAKE A FERRY
- 8 VISIT THE CAPE HATTERAS LIGHTHOUSE OR BODIE ISLAND LIGHTHOUSE
- 9 VISIT HISTORIC SITES IN CAPE HATTERAS NATIONAL SEASHORE
- 10 CANOEING, KAYAKING, OR SAILING
- 11 DRIVING ON THE BEACH DURING THE DAY
- 12 DRIVING ON THE BEACH AT NIGHT AFTER 10PM
- 99 OTHER - { ActivitySpecify }
- 9 DON'T KNOW
- 7 REFUSE

B22a

B22a

How many hours do you plan to spend on the beach today?

[USE DECIMALS TO ENTER PARTIAL HOURS
.75 = 45 MINUTES, .50 = 30 MINUTES, .25 = 15 MINUTES
FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<DECIMAL 0 – 24, -7, -9>

B22b

B22b

Has anyone{B22Fill} in your group driven a vehicle on the beach during this trip?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B23

B23

As part of new proposals for managing beach driving, the park may institute a permit system for beach driving. Drivers could purchase a 12-month permit for {CostFill}. The money collected from the permits would be used to manage beach driving. If required for beach driving, would you have paid {CostFill} to buy a 12-month permit for this trip?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B24a**B24a**

Have you made trips to any other ocean beaches in North Carolina, south of Ocracoke Island in the last 12 months?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B24b**B24b**

Have you made trips to any other ocean beaches anywhere in the U.S. in the last 12 months?

- 1 YES < If {B24b} = "1" then goto B25;>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

B26

B25

Which other states did you visit for ocean beach trips in the last 12 months?

- 1 ALABAMA
- 2 ALASKA
- 4 CALIFORNIA
- 8 CONNECTICUT
- 16 DELAWARE
- 32 FLORIDA
- 64 GEORGIA
- 128 HAWAII
- 256 LOUISIANA
- 512 MAINE
- 1024 MARYLAND
- 2048 MASSACHUSETTS
- 4096 MISSISSIPPI
- 8192 NEW JERSEY
- 16384 NEW HAMPSHIRE
- 32768 NEW YORK
- 65536 OREGON
- 131072 PENNSYLVANIA
- 262144 RHODE ISLAND
- 524288 SOUTH CAROLINA
- 1048576 TEXAS
- 2097152 VIRGINIA
- 4194304 WASHINGTON
- 8388608 DON'T KNOW
- 16777216 REFUSED
- 33554432 NONE OF THE ABOVE

<ATA question type>

B26**B26**

How would you rate this trip so far? Would you say it is very good, good, average, poor, or very poor?

- 1 VERY GOOD
- 2 GOOD
- 3 AVERAGE
- 4 POOR
- 5 VERY POOR
- 9 DON'T KNOW
- 7 REFUSED

B27

B27

Thank you. We're finished with the interview. Is there anything else you would like to add?

E01

SECTION D. LOCAL RESIDENTS OF THE OUTER BANKS AND MANTEO ON DAY TRIPS

D01Years

How long have you lived at the Outer Banks?

[ENTER NUMBER OF YEARS ON THIS SCREEN AND THE NUMBER OF MONTHS ON THE NEXT SCREEN
FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

_____ <INTEGER, 2 DIGITS, RANGE: 00 – 99, -7, -9>

D01Months

D01Months

(How long have you lived at the Outer Banks?)

[ENTER NUMBER OF MONTHS
FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

_____ <INTEGER, 2 DIGITS, RANGE: 00 – 11, -7, -9>

D01b

D01b

Is this your first trip to Cape Hatteras National Seashore?

- 1 YES <IF D01b = 1 THEN SKIP TO D09a>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D02

D02

How many days did you visit the National Seashore in the months of January and February?
Only count visits to the National Seashore, not visits to other beaches on the Outer Banks. Please give us your best estimate.

- 1 1 TIME A WEEK OR MORE
- 2 2-3 TIMES A MONTH
- 3 ONCE A MONTH
- 4 LESS THAN ONCE A MONTH
- 5 NONE
- 9 DON'T KNOW
- 7 REFUSE

D03Fill

D03Fill

SET MONTH FILL FOR D03, D04, D05, D06 HERE – NEED ADDITIONAL INFO OR SKIPS.

How many days have you visited [“did you visit” if past May 31] the National Seashore in the months of March, April, and May [only mention months that have passed, plus the month of the interview. Do not mention future months]?

<

IF {CurrentMonth} = "1" OR {CurrentMonth} = "2" THEN GOTO D07;

IF {CurrentMonth} = "3" THEN set D03Fill = " have you visited the National Seashore in the month of March?";

IF {CurrentMonth} = "4" THEN set D03Fill = " have you visited the National Seashore in the months of March and April?";

IF {CurrentMonth} = "5" THEN set D03Fill = " have you visited the National Seashore in the months of March, April, and May?";

IF {CurrentMonth} = "6" OR {CurrentMonth} = "7" OR {CurrentMonth} = "8" OR

{CurrentMonth} = "9" OR {CurrentMonth} = "10" OR {CurrentMonth} = "11" OR

{CurrentMonth} = "12" THEN

set D03Fill = " did you visit the National Seashore in the months of March, April, and May?";

>

D03**D03**

How many days {D03Fill}?

- 1 1 TIME A WEEK OR MORE
- 2 2-3 TIMES A MONTH
- 3 ONCE A MONTH
- 4 LESS THAN ONCE A MONTH
- 5 NONE
- 9 DON'T KNOW
- 7 REFUSE

D04Fill

D04Fill

SET MONTH FILL FOR D04, D05, D06 HERE – NEED ADDITIONAL INFO OR SKIPS.
How many days have you visited ["did you visit" if past August 31] the National Seashore in the months of June, July, and August [only mention months that have passed, plus the month of the interview. Do not mention future months]?

<

IF {CurrentMonth} = "01" OR {CurrentMonth} = "02" OR {CurrentMonth} = "03" OR
{CurrentMonth} = "04" OR {CurrentMonth} = "05" THEN GOTO D07;

IF {CurrentMonth} = "06" THEN set D04Fill = " have you visited the National Seashore in the month of June?";

IF {CurrentMonth} = "07" THEN set D04Fill = " have you visited the National Seashore in the months of June and July?";

IF {CurrentMonth} = "08" THEN set D04Fill = " have you visited the National Seashore in the months of June, July, and August?";

IF {CurrentMonth} = "09" OR {CurrentMonth} = "10" OR {CurrentMonth} = "11" OR
{CurrentMonth} = "12" OR MONTH = "05" THEN

set D04Fill = " did you visit the National Seashore in the months of June, July, and August?";>

D04**D04**

How many days {D04Fill}?

- 1 1 TIME A WEEK OR MORE
- 2 2-3 TIMES A MONTH
- 3 ONCE A MONTH
- 4 LESS THAN ONCE A MONTH
- 5 NONE
- 9 DON'T KNOW
- 7 REFUSE

D05Fill

D05Fill

*SET FILL FOR D05 -How many days have you visited ["did you visit" if past October 31] the National Seashore in the months of September and October? [only mention months that have passed, plus the month of the interview. Do not mention future months]

<

IF {CurrentMonth} = "01" OR {CurrentMonth} = "02" OR {CurrentMonth} = "03" OR {CurrentMonth} = "04" OR {CurrentMonth} = "05" OR {CurrentMonth} = "06" OR {CurrentMonth} = "07" OR {CurrentMonth} = "08" THEN GOTO D07;

IF {CurrentMonth} = "09" THEN set D05Fill = " have you visited the National Seashore in the month of September?";

IF {CurrentMonth} = "10" THEN set D05Fill = " have you visited the National Seashore in the months of September and October? ";

IF {CurrentMonth} = "11" OR {CurrentMonth} = "12" THEN set D05Fill = " did you visit the National Seashore in the months of September and October? ";

>

D05**D05**

How many days {D05Fill}

- 1 1 TIME A WEEK OR MORE
- 2 2-3 TIMES A MONTH
- 3 ONCE A MONTH
- 4 LESS THAN ONCE A MONTH
- 5 NONE
- 9 DON'T KNOW
- 7 REFUSE

D06Fill**D06Fill**

SET D06 FILL - How many days have you visited ["did you visit" if past December 31] the National Seashore in the months of November and December? [only mention months that have passed, plus the month of the interview. Do not mention future months]

<

IF {CurrentMonth} = "01" OR {CurrentMonth} = "02" OR {CurrentMonth} = "03" OR {CurrentMonth} = "04" OR {CurrentMonth} = "05" OR {CurrentMonth} = "06" OR {CurrentMonth} = "07" OR {CurrentMonth} = "08" OR {CurrentMonth} = "09" OR {CurrentMonth} = "10" THEN GOTO D07;

IF {CurrentMonth} = "11" THEN set D06Fill = " have you visited the National Seashore in the month of November?";

IF {CurrentMonth} = "12" THEN set D06Fill = " have you visited the National Seashore in the months of November and December? ";

>

D06

D06

How many days {D06Fill}

- 1 1 TIME A WEEK OR MORE
- 2 2-3 TIMES A MONTH
- 3 ONCE A MONTH
- 4 LESS THAN ONCE A MONTH
- 5 NONE
- 9 DON'T KNOW
- 7 REFUSE

D07**D07**

Thinking back to 2008, on average over the whole year how often did you use the beach in Cape Hatteras National Seashore in 2008? Only count visits to the National Seashore, not visits to other beaches on the Outer Banks.

- 1 1 TIME A WEEK OR MORE
- 2 2-3 TIMES A MONTH
- 3 ONCE A MONTH
- 4 LESS THAN ONCE A MONTH
- 5 NONE
- 9 DON'T KNOW
- 7 REFUSE

D08**D08**

Comparing 2008 and 2010, would you say you will probably spend more days in the National Seashore in 2010, about the same number days in the National Seashore in 2010, or fewer days in the National Seashore in 2010 than in 2008?

- 1 MORE
- 2 ABOUT THE SAME
- 3 FEWER
- 9 DON'T KNOW
- 7 REFUSE

D08b

D08b

Thinking back to 2007, on average over the whole year how often did you use the beach in Cape Hatteras National Seashore in 2007? Only count visits to the National Seashore, not visits to other beaches on the Outer Banks.

- 1 1 TIME A WEEK OR MORE
- 2 2-3 TIMES A MONTH
- 3 ONCE A MONTH
- 4 LESS THAN ONCE A MONTH
- 5 NONE
- 9 DON'T KNOW
- 7 REFUSE

D08c**D08c**

Comparing 2007 and 2010, would you say you will probably spend more days in the National Seashore in 2010, about the same number days in the National Seashore in 2010, or fewer days in the National Seashore in 2010 than in 2007?

- 1 MORE
- 2 ABOUT THE SAME
- 3 FEWER
- 9 DON'T KNOW
- 7 REFUSE

D09a**D09a**

How often have you made trips this year to the rest of the Outer Banks, north of Cape Hatteras?

- 1 1 TIME A WEEK OR MORE
- 2 2-3 TIMES A MONTH
- 3 ONCE A MONTH
- 4 LESS THAN ONCE A MONTH
- 5 NONE
- 9 DON'T KNOW
- 7 REFUSE

D09b

D09b

How likely are you to permanently move away from the Outer Banks in the next 12 months?
 Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

- 1 VERY LIKEY
- 2 SOMEWHAT LIKELY
- 3 SOMEWHAT UNLIKELY
- 4 VERY UNLIKELY
- 9 DON'T KNOW
- 7 REFUSE

D09INFO**D09INFO**

Here is a map of Cape Hatteras National Seashore. During different times of the year, parts of the seashore may be closed to safeguard the nesting areas of various species of protected sea turtles and shorebirds. Managing the area for visitors can be difficult because the park does not know in advance where the shore birds and sea turtles will nest and when different parts of the beach will need to be closed.

Suppose that under a new plan to manage beach driving the areas in green would be open to vehicles and pedestrians. The green areas would be managed like they currently are. If protected birds or turtles nest on the beach, part or all of the green areas could be closed. If a section of the beach is closed to protect the nests of shorebirds, which usually happens in the spring and early summer, the section of beach will stay closed until mid-July at the earliest or until the birds learn to fly. Turtle nests usually hatch from late-July until late-October. The park monitors the nests and provides weekly updates on which sections of beach are open or closed.

All the areas in blue would be open for pedestrians only. The light blue areas are resource areas designated to support protected birds. Similar to the green areas, if birds nest in these areas, the areas may close to pedestrians during parts of the spring and summer.

We are here [POINT TO MAP].

[WE ARE ASKING ABOUT THIS TRIP ONLY SO THE MAPS REPRESENT WHAT THE BEACH WOULD LOOK LIKE RIGHT NOW]

QxQ - If people want to know if the beach would be closed all year, tell them that we are only asking about this trip, we are not asking about trips later in the year.

< IF {AffectedA} = "1" or {AffectedA} = "3" then goto D11c; >

D10

D10

During this season, the plan does not affect management of the area where we are currently standing. It would affect the light blue areas, which would be closed to vehicles even if there were no nests. It would also affect the dark green areas on Ocracoke, which would be open to vehicles during this season if there were no nests.

If the plan on this map had been in place *before* you made any plans or reservations for this trip and before you put down any money on deposits, how likely is it that you would still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

- 1 VERY LIKEY
- 2 SOMEWHAT LIKELY
- 3 SOMEWHAT UNLIKELY
- 4 VERY UNLIKELY
- 9 DON'T KNOW
- 7 REFUSE

< if {D10} = "3" or {D10} = "4" then goto D11; >

D11B**D11**

What do you think you most likely would have done instead? Would you go to another part of the Outer Banks, go to a different beach in North Carolina, go to a different beach outside North Carolina, go somewhere else-but not an ocean beach, or stay home?

- 1 GO TO ANOTHER PART OF THE OUTER BANKS
- 2 GO TO A DIFFERENT BEACH IN NORTH CAROLINA
- 3 GO TO A DIFFERENT BEACH OUTSIDE NORTH CAROLINA
- 4 GO SOMEWHERE ELSE, BUT NOT AN OCEAN BEACH
- 5 STAY HOME
- 9 DON'T KNOW
- 7 REFUSE

D11B**D11B**

Under this plan, when no protected birds or turtles are nesting all the areas in blue would be closed to vehicles all year and all the areas in green would be open to vehicles all year. Do you think you would have taken more trips to Cape Hatteras National Seashore, fewer trips or the same number as you plan to in 2010?

- 1 I WOULD HAVE TAKEN MORE TRIPS
- 2 I WOULD HAVE TAKEN THE SAME NUMBER
- 3 I WOULD HAVE TAKEN FEWER TRIPS
- 9 DON'T KNOW
- 7 REFUSE

D12C

D11C

The plan affects the area where we are currently standing – {D10Fill}. If the plan on this map had been in place *before* you made any plans or reservations and before you put down any money on deposits for this trip, how likely would you still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

- 1 VERY LIKEY
- 2 SOMEWHAT LIKELY
- 3 SOMEWHAT UNLIKELY
- 4 VERY UNLIKELY
- 9 DON'T KNOW
- 7 REFUSE

< if {D11c} = "3" or {D11c} = "4" then goto D12;>

D12B**D12**

What do you think you most likely would have done instead? Would you go to another part of the Outer Banks, go to a different beach in North Carolina, go to a different beach outside North Carolina, go somewhere else-but not an ocean beach, or stay home?

- 1 GO TO ANOTHER PART OF THE OUTER BANKS
- 2 GO TO A DIFFERENT BEACH IN NORTH CAROLINA
- 3 GO TO A DIFFERENT BEACH OUTSIDE NORTH CAROLINA
- 4 GO SOMEWHERE ELSE, BUT NOT AN OCEAN BEACH
- 5 STAY HOME
- 9 DON'T KNOW
- 7 REFUSE

D12b**D12b**

Under this plan, when no protected birds or turtles are nesting all the areas in blue would be closed to vehicles all year and all the areas in green would be open to vehicles all year. Do you think you would have taken more trips to Cape Hatteras National Seashore, fewer trips or the same number as you plan to in 2010?

- 1 I WOULD HAVE TAKEN MORE TRIPS
- 2 I WOULD HAVE TAKEN THE SAME NUMBER
- 3 I WOULD HAVE TAKEN FEWER TRIPS
- 9 DON'T KNOW
- 7 REFUSE

D12c

D12C

Now I would like to ask you about a different plan. [show map] The purple areas will be managed as they are under the current rules. They would close in mid-March and open up to pedestrians and vehicles on August 1 or 2 weeks after the last birds learn how to fly, which ever is later. But under the new plan the park would work to maintain more pedestrian and vehicle access to these areas than there is currently by building pedestrian trails and vehicle corridors, building new vehicle access ramps and allowing water taxis to service inaccessible areas. If the areas in purple were open for pedestrian and vehicle access more days during the spring, summer, and fall, would you have made more trips to Cape Hatteras National Seashore during 2010?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D13Adults**D13Adults**

Now we have a few questions about your current trip.

How many adults 18 and over you are with you on this trip today?

[FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

____ <INTEGER, 2 DIGITS, RANGE: 00 – 99, -7, -9>

D13Children**D13Children**

How many children are with you on this trip today?

[PEOPLE 17 AND UNDER ARE CONSIDERED CHILDREN
FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

____ <INTEGER, 2 DIGITS, RANGE: 00 – 99, -7, -9>

D14a

D14a

What other parts of the National Seashore have you visited between the start of 2007 and now?

Area north of Oregon Inlet and vehicle ramp 4

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D14b

D14b

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

The point of Oregon Inlet (south of vehicle ramp 4)

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D14c

D14c

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

Rodanthe to Buxton

[PRONOUNCED "ROW DAN THEE"]

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D14d

D14d

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

Ocean side of Hatteras Island *north* of the Cape Hatteras Lighthouse to Buxton?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D14e

D14e

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

Ocean side of Hatteras Island *south* of the Cape Hatteras Lighthouse to Cape Point?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D14f**D14f**

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

Cape Point area

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D14g**D14g**

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

South Beach to last vehicle access ramp on Hatteras Island (ramp 55)

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D14h**D14h**

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

Hatteras Inlet at the end of Hatteras Island

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D14i

D14i

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

North Ocracoke Spit, which is the south side of Hatteras Inlet on Ocracoke Island?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D14j**D14j**

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

Ocracoke from vehicle ramp 59 south to vehicle ramp 72

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D14k**D14k**

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

Ramp 72 to South Point at the end of Ocracoke Island

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D14l**D14l**

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

The Sound side of Cape Hatteras

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D14m

D14m

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

Other

- 1 YES < if {D14m} = "1" then goto D14Specify; >
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D15a

D14Specify

(What other parts of the National Seashore have you visited between the start of 2007 and now?)

[SPECIFY OTHER PARTS OF THE NATIONAL SEASHORE YOU HAVE VISITED SINCE THE START OF 2007 AND NOW]

<TEXT >

D15a

D15a

What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?

Pier fishing?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D15b

D15b

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Beach fishing?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D15c

D15c

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Charter (offshore) fishing?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D15d**D15d**

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Swimming, sunbathing, or enjoying the beach?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D15e**D15e**

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Surfing or kite-surfing?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D15f**D15f**

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Birdwatching/wildlife-viewing?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D15g

D15g

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Take a ferry?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D15h**D15h**

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Visit the Cape Hatteras Lighthouse or Bodie Island Lighthouse?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D15i**D15i**

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Visit historic sites in Cape Hatteras National Seashore?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D15j**D15j**

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Canoeing, kayaking, or sailing?

- 1 YES
2 NO
-9 DON'T KNOW
-7 REFUSE

D15k

D15k

(What activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

Driving on the beach during the day?

- 1 YES
 2 NO
 -9 DON'T KNOW
 -7 REFUSE

D15m**D15m**

What other activities have you done today or do you plan to do today in Cape Hatteras National Seashore?

- 1 YES <IF D15m = "1" THEN GOTO D15Specify>
 2 NO
 -9 DON'T KNOW
 -7 REFUSE
 < set {ActivitySpecify} = " ";>

D15n**D15Specify**

(What other beach\recreational activities have you done today or do you plan to do today in Cape Hatteras National Seashore?)

[SPECIFY OTHER BEACH\RECREATIONAL ACTIVITIES]

<TEXT set {ActivitySpecify} = {D15Specify}; >

D15n

D15n

Of the activities you just mentioned, what is your primary activity for *this* trip?

- 1 PIER FISHING
- 2 BEACH FISHING
- 3 CHARTER (OFFSHORE) FISHING
- 4 SWIMMING, SUNBATHING, OR ENJOYING THE BEACH
- 5 SURFING OR KITE-SURFING
- 6 BIRDWATCHING/WILDLIFE-VIEWING
- 7 TAKE A FERRY
- 8 VISIT THE CAPE HATTERAS LIGHTHOUSE OR BODIE ISLAND LIGHTHOUSE
- 9 VISIT HISTORIC SITES IN CAPE HATTERAS NATIONAL SEASHORE
- 10 CANOEING, KAYAKING, OR SAILING
- 11 DRIVING ON THE BEACH DURING THE DAY
- 99 OTHER - {ActivitySpecify}
- 9 DON'T KNOW
- 7 REFUSE

D16a**D16a**

How many hours do you plan to spend on the beach today?

[USE DECIMALS TO ENTER PARTIAL HOURS
.75 = 45 MINUTES, .50 = 30 MINUTES, .25 = 15 MINUTES
FOR DON'T KNOW, ENTER -9
FOR REFUSED, ENTER -7]

<DECIMAL 0 – 24, -7, -9>

D16b**D16b**

As part of new proposals for managing beach driving, the park may institute a permit system for beach driving. Drivers could purchase a 12-month permit for {CostFill}. The money collected from the permits would be used to manage beach driving. If required for beach driving, would you have paid {CostFill} to buy a 12-month permit for this trip?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D17a

D17a

Have you made trips to any other ocean beaches in North Carolina, south of Ocracoke Island in the last 12 months?

- 1 YES
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D17b**D17b**

Have you made trips to any other ocean beaches anywhere in the U.S. in the last 12 months?

- 1 YES < if {D17b} = "1" then goto D18;>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D19

D18

Which other states did you visit for beach trips in the last 12 months?

- 1 ALABAMA
- 2 ALASKA
- 4 CALIFORNIA
- 8 CONNECTICUT
- 16 DELAWARE
- 32 FLORIDA
- 64 GEORGIA
- 128 HAWAII
- 256 LOUISIANA
- 512 MAINE
- 1024 MARYLAND
- 2048 MASSACHUSETTS
- 4096 MISSISSIPPI
- 8192 NEW JERSEY
- 16384 NEW HAMPSHIRE
- 32768 NEW YORK
- 65536 OREGON
- 131072 PENNSYLVANIA
- 262144 RHODE ISLAND
- 524288 SOUTH CAROLINA
- 1048576 TEXAS
- 2097152 VIRGINIA
- 4194304 WASHINGTON
- 8388608 DON'T KNOW
- 16777216 REFUSED
- 33554432 NONE OF THE ABOVE

<ATA question type>

D19**D19**

Do you own a business on the Outer Banks?

- 1 YES 2 <IF D19 = 1 THEN GOTO D20>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D21

D20

What type of business do you own on the Outer Banks?

- 1 LODGING (HOTELS, BED AND BREAKFAST, ETC.)
- 2 REALTY/HOUSING RENTALS
- 3 RETAIL (RECREATION SUPPLIES, GIFT SHOPS, CLOTHING GROCERY STORES, ETC.)
- 4 RESTAURANTS/SNACK BARS, ETC.
- 5 SERVICES (RESIDENTIAL, COMMERCIAL, CONSULTING, ETC.)
- 6 RECREATION (MARINAS, CHARTER BOATS, PARASAILING, KAYAK TOURS)
- 7 COMMERCIAL FISHING
- 8 PARK EMPLOYEE
- 9 GOVERNMENT
- 99 OTHER <IF D20 = 99 THEN GOTO D20Specify>
- 9 DON'T KNOW
- 7 REFUSED

< ATextFSize=(07,10);>

D23**D20Specify**

(What type of business do you own on the Outer Banks?)

[SPECIFY OTHER TYPE OF BUSINESS OWNED ON THE OUTER BANKS]

<TEXT>

D23**D21**

Do you currently work full- or part-time?

- 1 YES <IF D21 = 1 THEN SKIP TO D22>
- 2 NO
- 9 DON'T KNOW
- 7 REFUSE

D23

D22

What type of business(es) do you work for?

- 1 LODGING (HOTELS, BED AND BREAKFAST, ETC.)
- 2 REALTY/HOUSING RENTALS
- 3 RETAIL (RECREATION SUPPLIES, GIFT SHOPS, CLOTHING GROCERY STORES, ETC.)
- 4 RESTAURANTS/SNACK BARS, ETC.
- 5 SERVICES (RESIDENTIAL, COMMERCIAL, CONSULTING, ETC.)
- 6 RECREATION (MARINAS, CHARTER BOATS, PARASAILING, KAYAK TOURS)
- 7 COMMERCIAL FISHING
- 8 PARK EMPLOYEE
- 9 GOVERNMENT
- 99 OTHER < if {D22} = "99" then goto D22Specify; >
- 9 DON'T KNOW
- 7 REFUSED

< ATextFSize=(07,10)>

D23**D22Specify**

(What type of business(es) do you work for?)

[SPECIFY OTHER TYPE OF BUSINESS YOU WORK FOR]

<TEXT>

D23**D23**

How would you rate this trip so far? Would you say it is very good, good, average, poor, or very poor?

- 1 VERY GOOD
- 2 GOOD
- 3 AVERAGE
- 4 POOR
- 5 VERY POOR
- 9 DON'T KNOW
- 7 REFUSED

D24**D24**

Thank you. We're finished with the interview. Is there anything else you would like to add?

<TEXT >

E01

END INDIVIDUAL QUESTIONNAIRE	
E01	
Thank you for your time and enjoy the rest of your day.	E02
E02	
[RECORD ANY NOTES ABOUT INTERVIEW:]	PostComp
PostComp	
< set {IntEnd}=now(); OutputVars(IntStart,IntEnd); If {IntroA01} = "1" then GOTO Post003>	Post002
Post002	
[ENTER NUMBER IN GROUP]	
<INTEGER, RANGE 01-99>	Post003
Post003	
[CHILDREN PRESENT?]	
1 <input type="checkbox"/> YES	
2 <input type="checkbox"/> NO	Post004
Post004	
[FISHING?]	
1 <input type="checkbox"/> YES	
2 <input type="checkbox"/> NO	Post005
Post005	
[NEAR A VEHICLE?]	
1 <input type="checkbox"/> YES	
2 <input type="checkbox"/> NO	End
End	

**Appendix B:
Map Based on
Features of Draft
Alternative D**

The survey contained questions about alternative ORV management plans. The interviewer described one of two different ORV management plans using a set of maps to illustrate the plan. Each respondent was randomly assigned to one of the two alternative ORV management plans. The survey instrument was designed before the alternatives in the DEIS were finalized, and the plan described in this appendix is based on a preliminary version of Alternative D. The management plans in the EIS have many complicated details that would have been very difficult to describe in a short survey, especially to visitors unfamiliar with the Seashore and ORV management. We simplified the description of the management plans to include only the major changes.

The interviewer read the following text and referred to the maps while she read the text.

“Here is a map of Cape Hatteras National Seashore. During different times of the year, parts of the seashore may be closed to safeguard the nesting areas of various species of protected sea turtles and shorebirds. Managing the area for visitors can be difficult because the park does not know in advance where the shore birds and sea turtles will nest and when different parts of the beach will need to be closed.

Suppose that under a new plan to manage beach driving the areas in green would be open to vehicles and pedestrians. The green areas would be managed like they currently are. If protected birds or turtles nest on the beach, part or all of the green areas could be closed. If a section of the beach is closed to protect the nests of shorebirds, which usually happens in the spring and early summer, the section of beach will stay closed until mid-July at the earliest or until the birds learn to fly. Turtle nests usually hatch from late-July until late-October. The park monitors the nests and provides weekly updates on which sections of beach are open or closed.

All the areas in blue would be open for pedestrians only. The light blue areas are resource areas designated to support protected birds. Similar to the green areas, if birds nest in these areas, the areas may close to pedestrians during parts of the spring and summer.

[if beach unaffected by alternative during season of interview] During this season, the plan does not affect management of the area where we are currently standing. It would affect the light blue areas, which would be closed to vehicles even if there were no nests. It would also affect the dark green areas on Ocracoke, which would be open to vehicles during this season if there were no nests.

[if beach affected by the alternative during season of interview] During this season, the plan affects the area where we are currently standing—[it would be closed to vehicles / it would be open to vehicles]. If the plan on this map had been in place *before* you made any plans or reservations and before you put down any money on deposits for this trip, how likely is it that you would still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?

If the plan on this map had been in place *before* you made any plans or reservations for this trip and before you put down any money on deposits, how likely is it that you would still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?" *[Questions B09 and B11]*

Under this plan, when no protected birds or turtles are nesting all the areas in blue would be closed to vehicles all year and all the areas in green would be open to vehicles all year. Do you think you would have taken more trips to Cape Hatteras National Seashore, fewer trips or the same number as you plan to in 2010?" *[Questions B10b and B12b]*

The maps used in the interviews were printed on 11 x 17 size paper and laminated. Figures B-1a and b show how the maps were laid out on the paper. Larger versions of each map are presented on the following pages in Figures B-2 to B-8.

Figure B-1a. Lay Out of Interview Maps Page 1

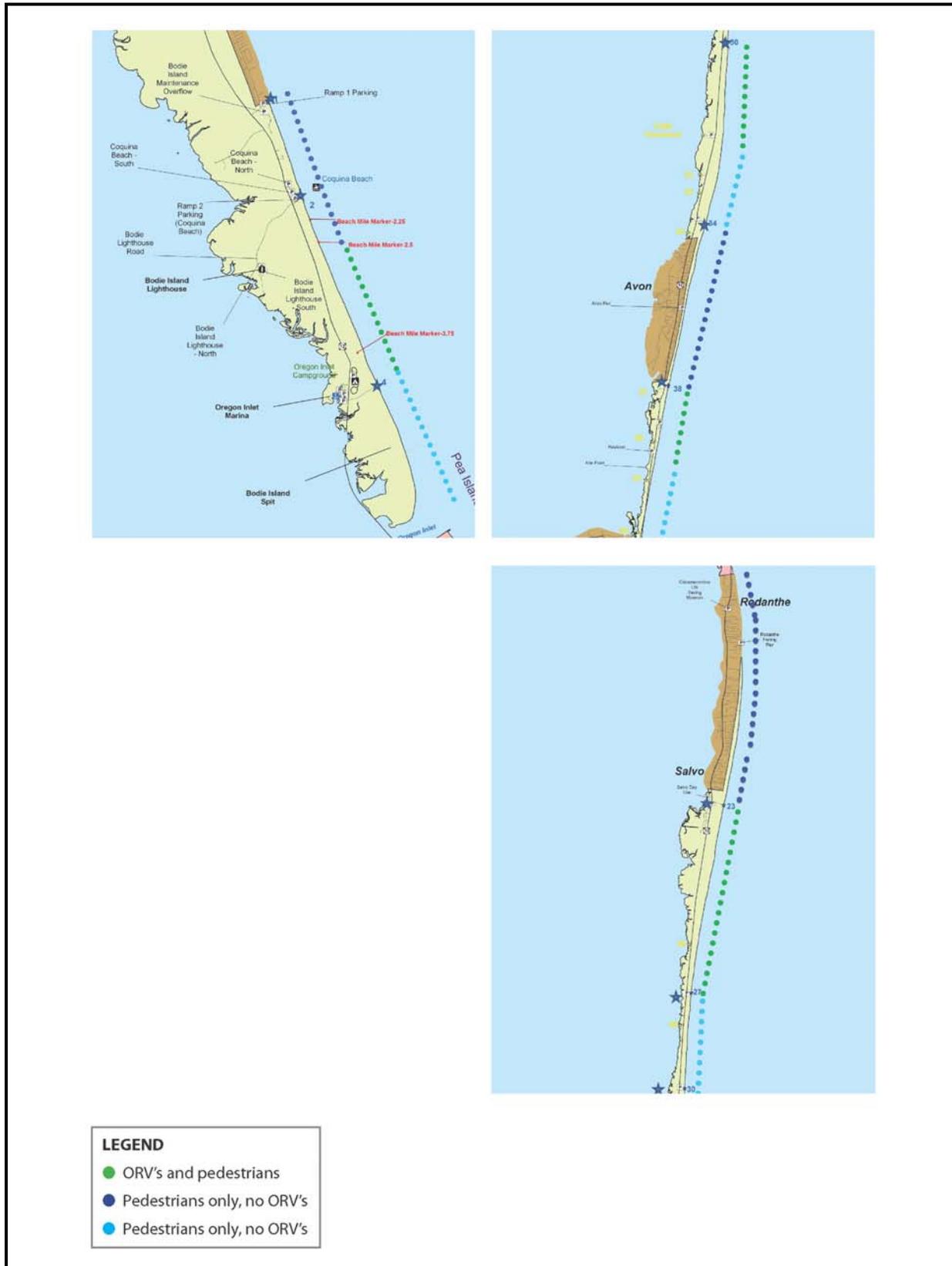


Figure B-1b. Lay Out of Interview Maps Page 2



Figure B-2. Map 1

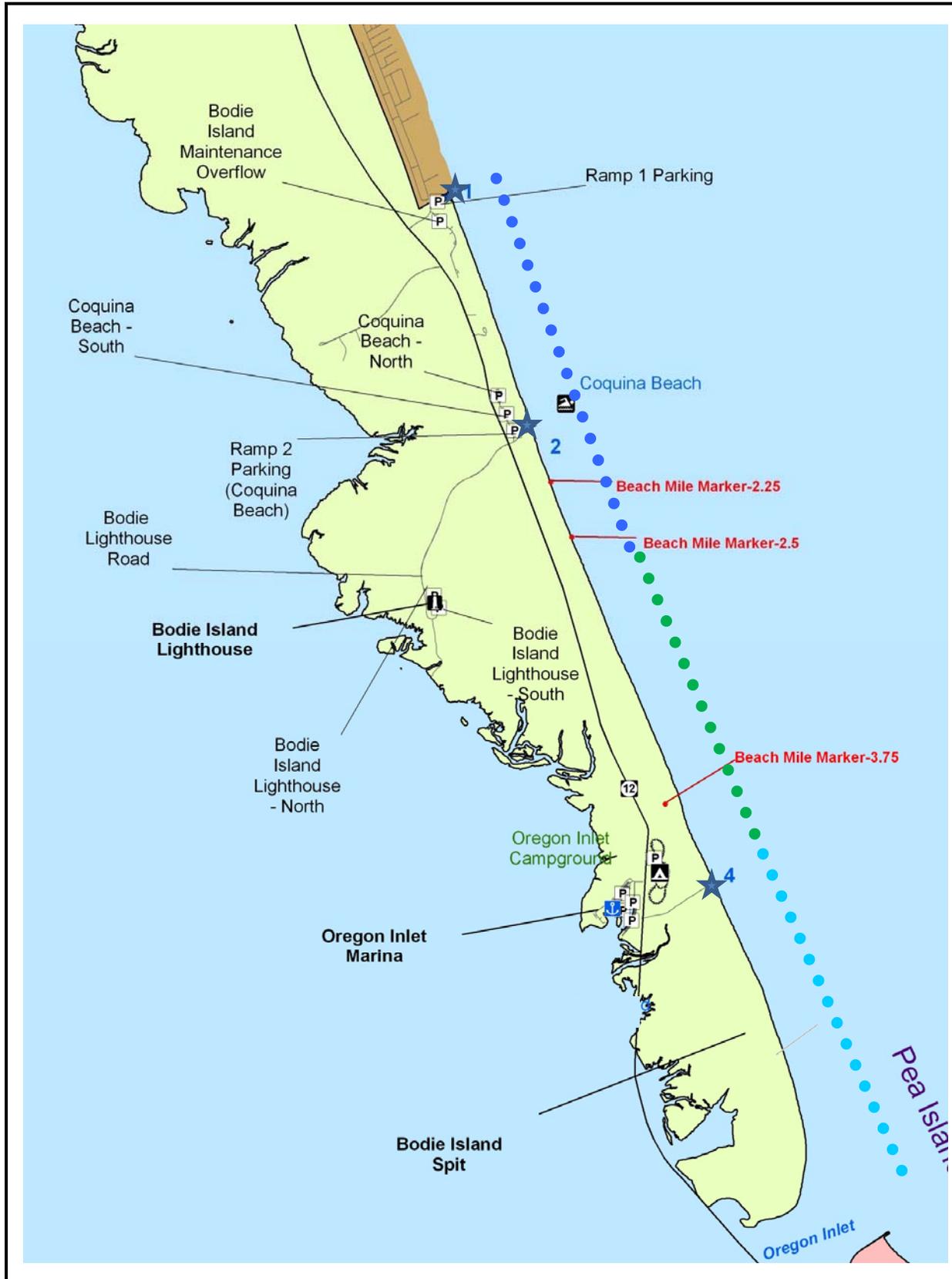


Figure B-3. Map 2

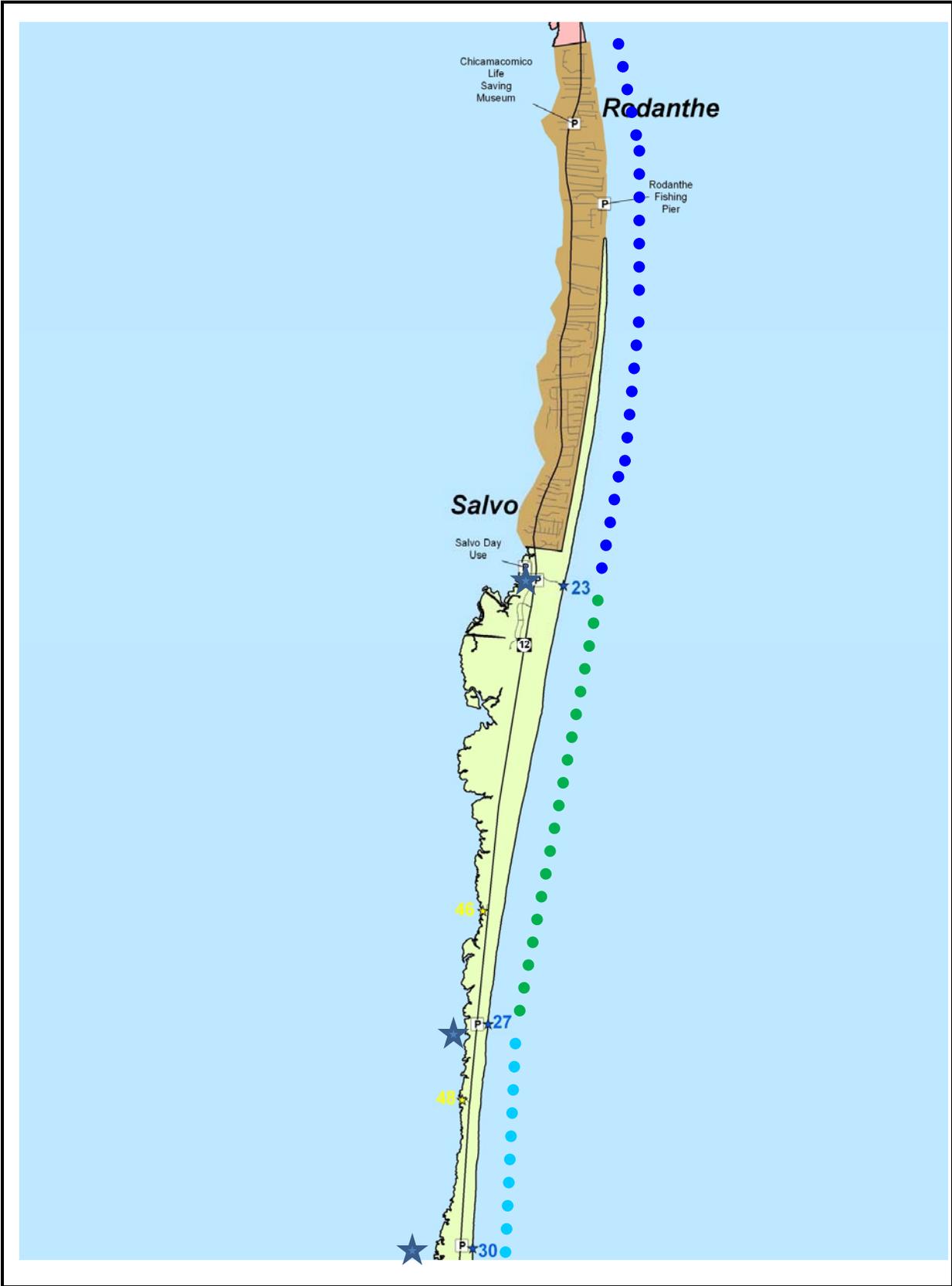


Figure B-4. Map 3



Figure B-5. Map 4

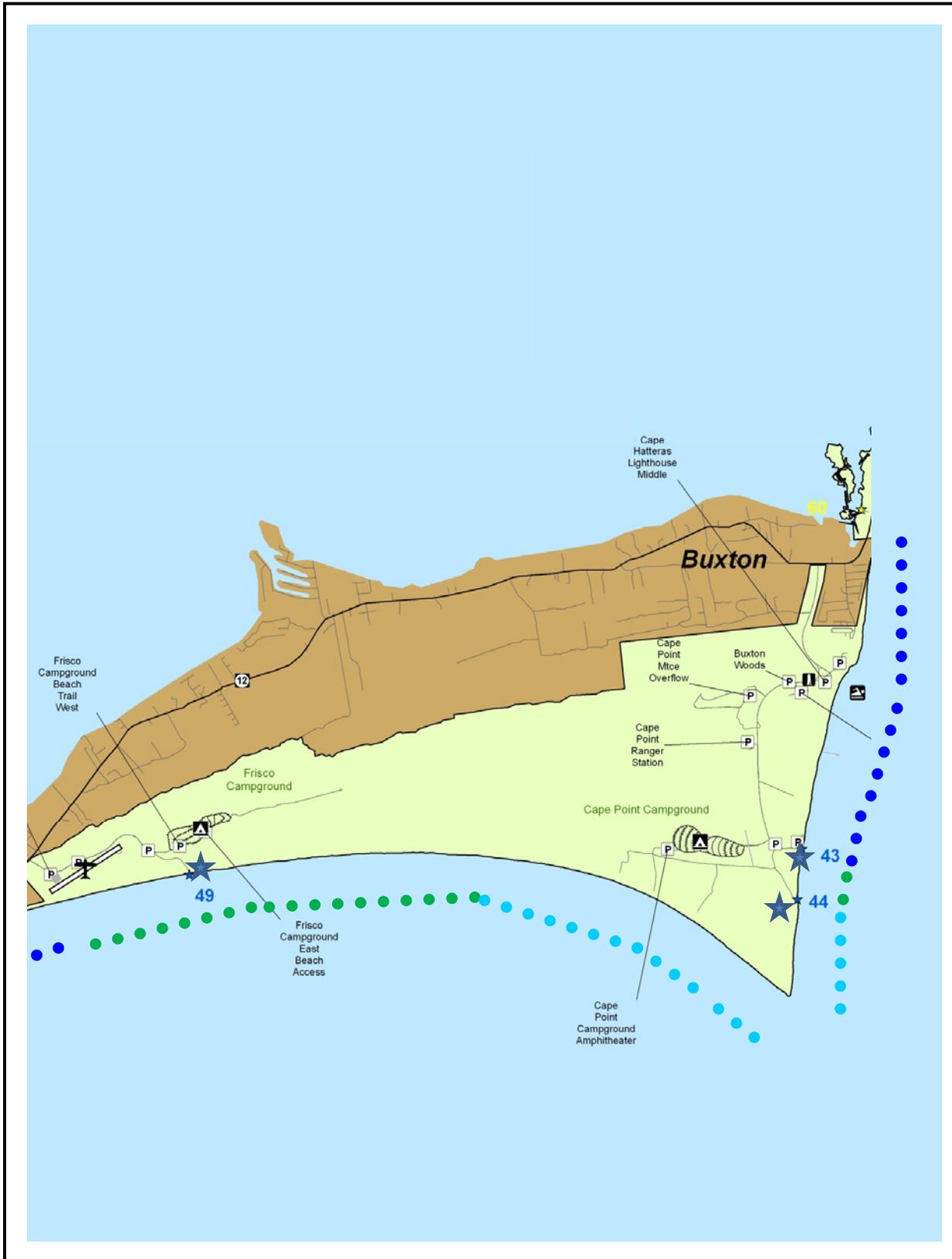


Figure B-6. Map 5



Figure B-7. Map 6

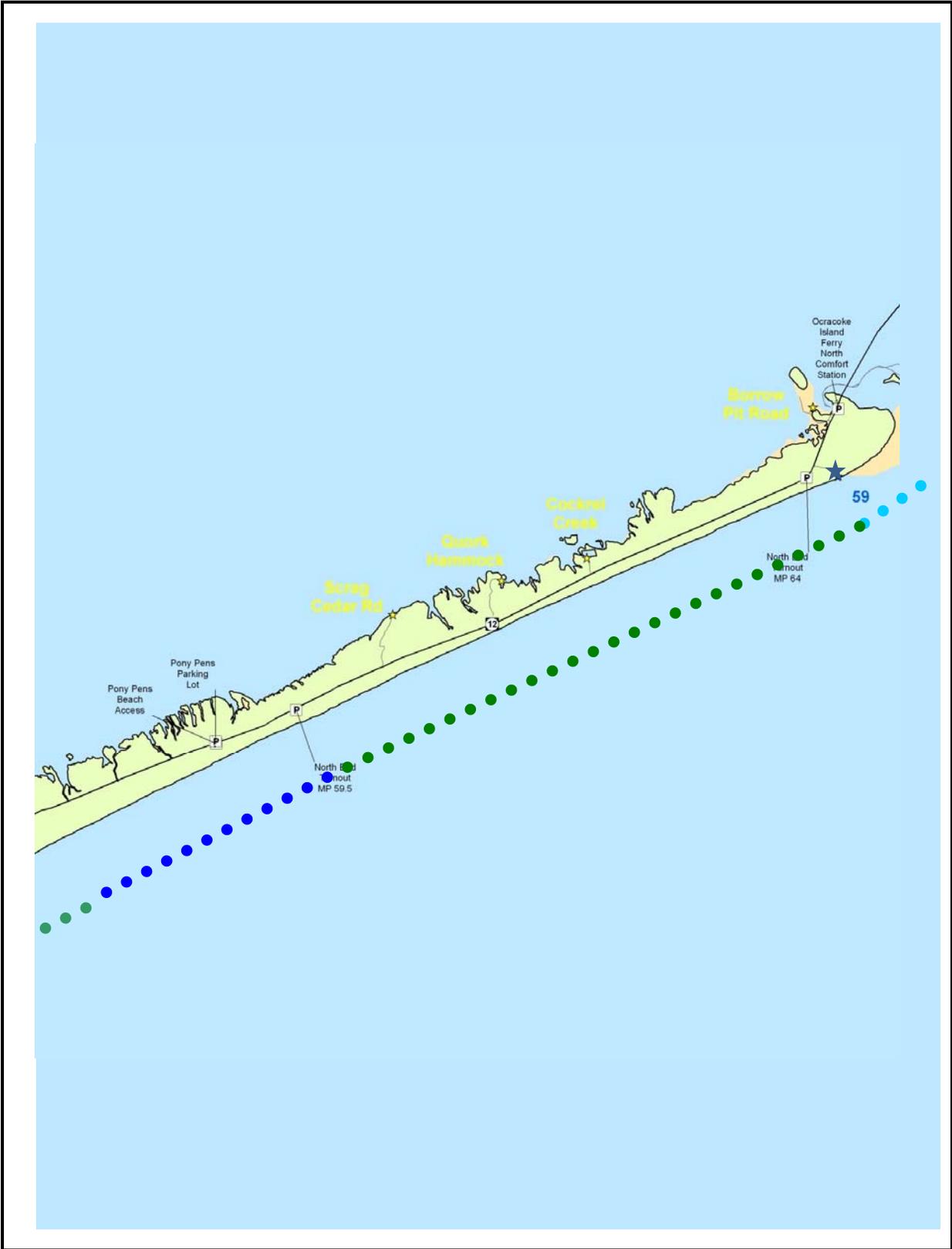


Figure B-8. Map 7



**Appendix C:
Map Based on
Features of Draft
Alternative F**

The survey contained questions about alternative ORV management plans. The interviewer described one of two different ORV management plans using a set of maps to illustrate the plan. Each respondent was randomly assigned to one of the two alternative ORV management plans. The survey instrument was designed before the alternatives in the DEIS were finalized, and the plan described in this appendix is based on a preliminary version of Alternative F. The management plans in the EIS have many complicated details that would have been very difficult to describe in a short survey, especially to visitors unfamiliar with the Seashore and ORV management. We simplified the description of the management plans to include only the major changes. The final version of Alternative F in the FEIS (NPS, 2010) differed slightly from the draft version on which we based the survey.

The interviewer read the following text and referred to the maps while she read the text.

“Here is a map of Cape Hatteras National Seashore. During different times of the year, parts of the seashore may be closed to safeguard the nesting areas of various species of protected sea turtles and shorebirds. Managing the area for visitors can be difficult because the park does not know in advance where the shore birds and sea turtles will nest and when different parts of the beach will need to be closed.

[THE FOLLOWING TEXT WILL DIFFER DEPENDING ON THE TIME OF YEAR]

Suppose that under a new plan to manage beach driving, the light blue areas on the map would be open to pedestrians, but not vehicles. The dark blue areas would be open to pedestrians only but no vehicles during most of the spring, summer and fall, and open to vehicles when visitation is lower. The areas in green would be open to vehicles and pedestrians year round.

If protected birds or turtles nest on the beach, part or all of an area could be closed. If a section of the beach is closed to protect the nests of shorebirds, which usually happens in the spring and early summer, the section of beach will stay closed until mid-July at the earliest or until the birds learn to fly. Turtle nests usually hatch

from late-July until late-October. The park monitors the nests and provides weekly updates on whether the sections of beach are open or closed.

The purple areas will be closed in mid-March as they are under the current rules. They would be opened up to pedestrians and vehicles on August 1 or 2 weeks after the last birds learn how to fly, whichever is later, unless the park can create paths for pedestrians and/or vehicles. Under the new plan the park would work to maintain more pedestrian and vehicle access to these areas than there is currently by building pedestrian trails, vehicle corridors, building new vehicle access ramps and allowing water taxis to service inaccessible areas. Even with these measures there is no guarantee that the purple areas would be open during the spring and summer, but with the park's actions there would be a better chance for pedestrian and/or vehicle access to parts of the areas that are under current management."

We are here. [POINT TO LOCATION ON MAP] { During this season, the plan affects the area where we are currently standing—it would be closed to vehicles / it would be open to vehicles OR During this season, the plan does not affect management of the area where we are currently standing. }

Suppose you had this information *before* you made any plans or reservations and before you put down any money on deposits for this trip. How likely would you still have taken this trip? Would you say very likely, somewhat likely, somewhat unlikely, or very unlikely?
[Question B13]

If the areas in purple were open for pedestrian and vehicle access more days during the spring, summer, and fall, would you have made more trips to Cape Hatteras National Seashore 2010? [Question B14b]

The maps used in the interviews were printed on 11 x 17 size paper and laminated. Figures C-1a and b show how the maps were laid out on the paper. Larger versions of each map are presented on the following pages in Figures C-2 to C-8.

Figure C-1a. Lay Out of Interview Maps Page 1

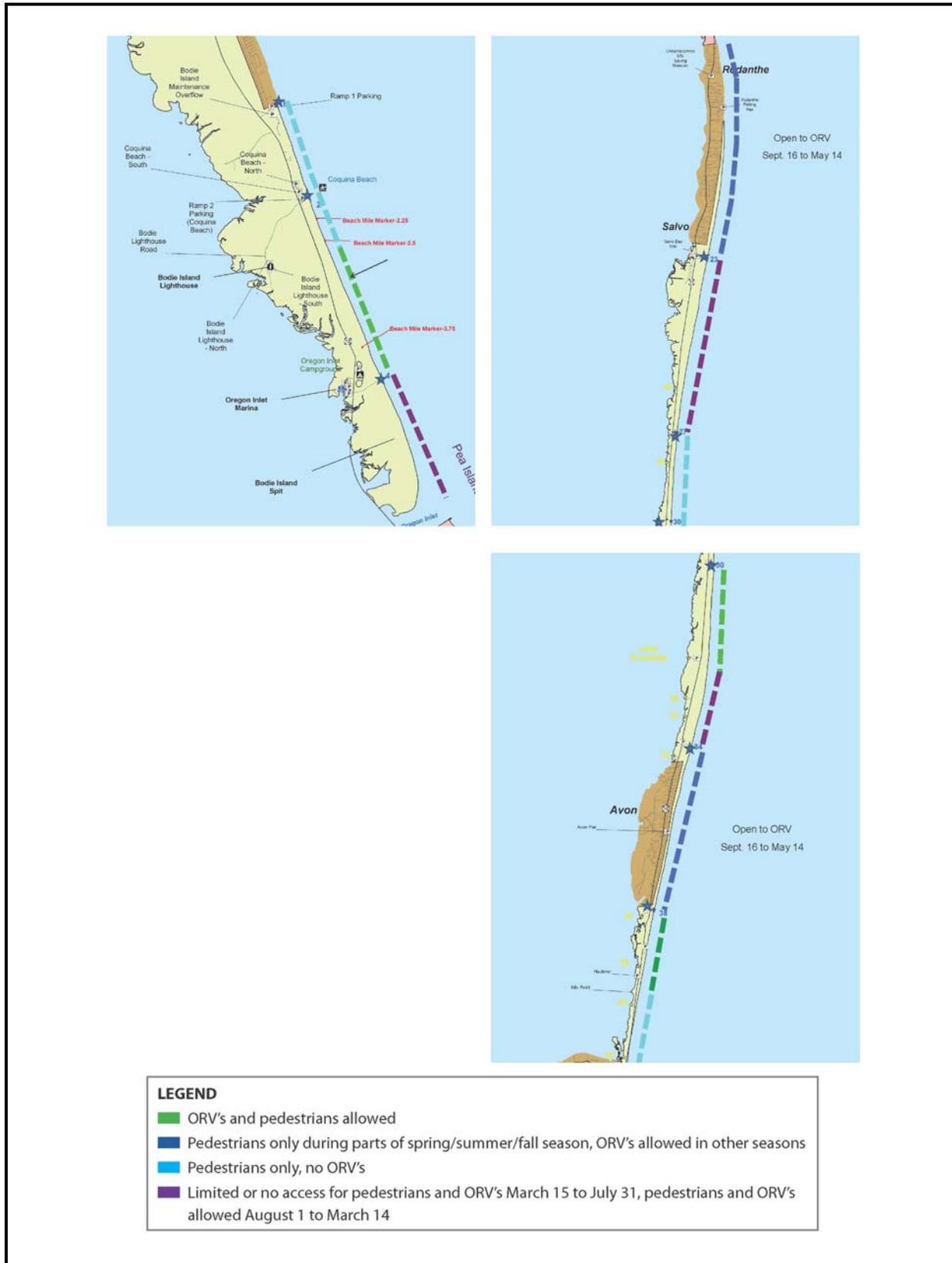


Figure C-1b. Lay Out of Interview Maps Page 2

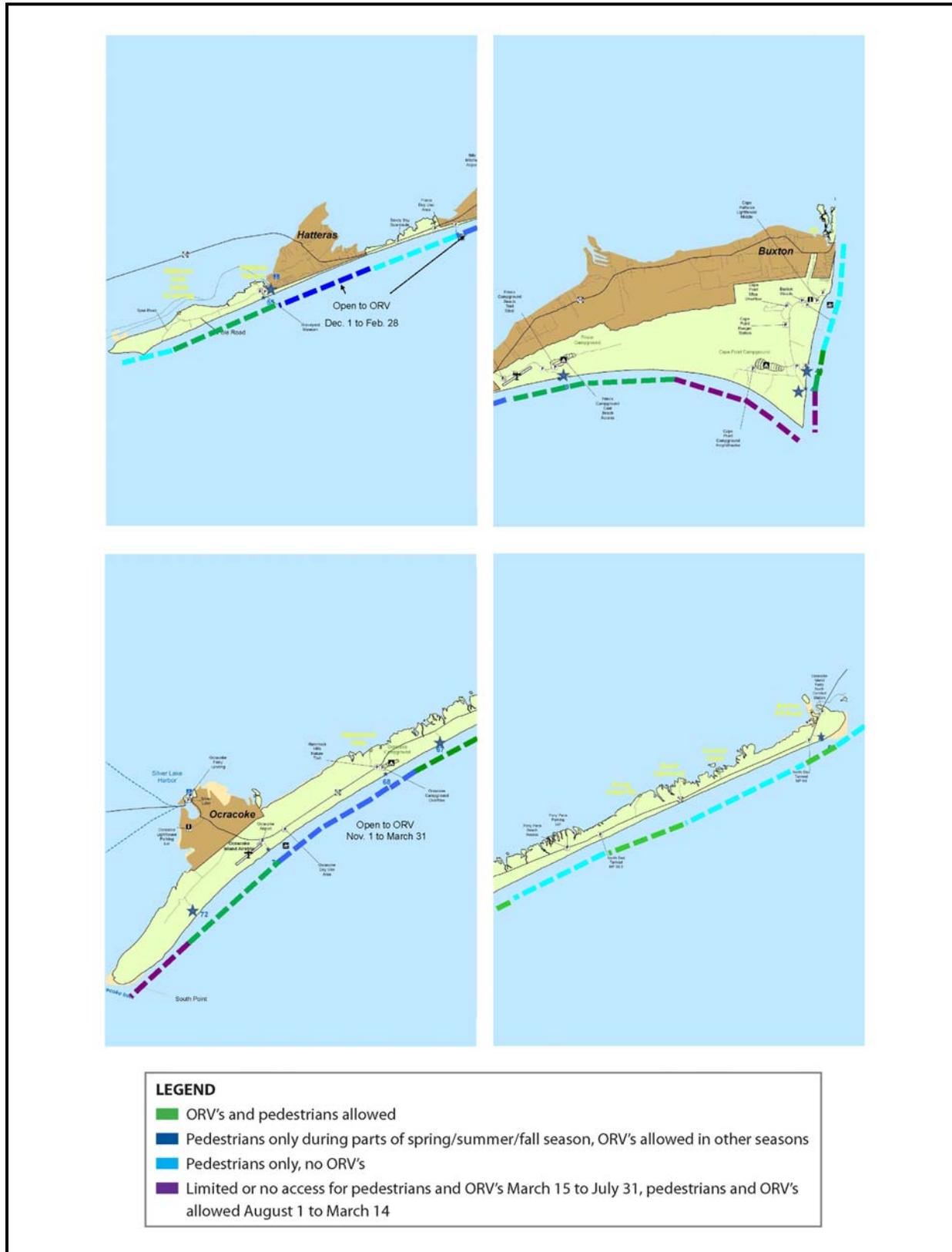


Figure C-2. Map 1



Figure C-3. Map 2

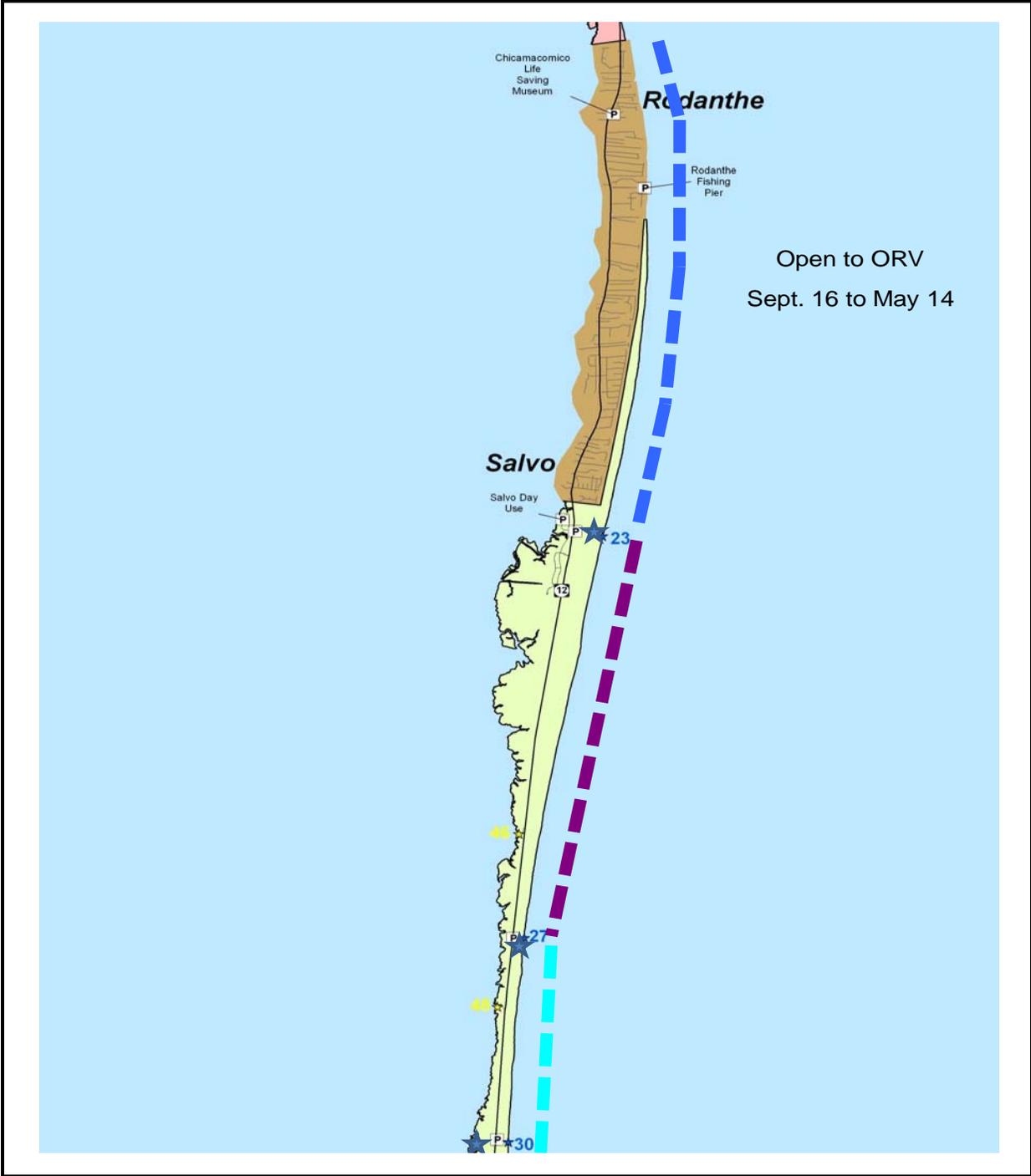


Figure C-4. Map 3



Figure C-5. Map 4

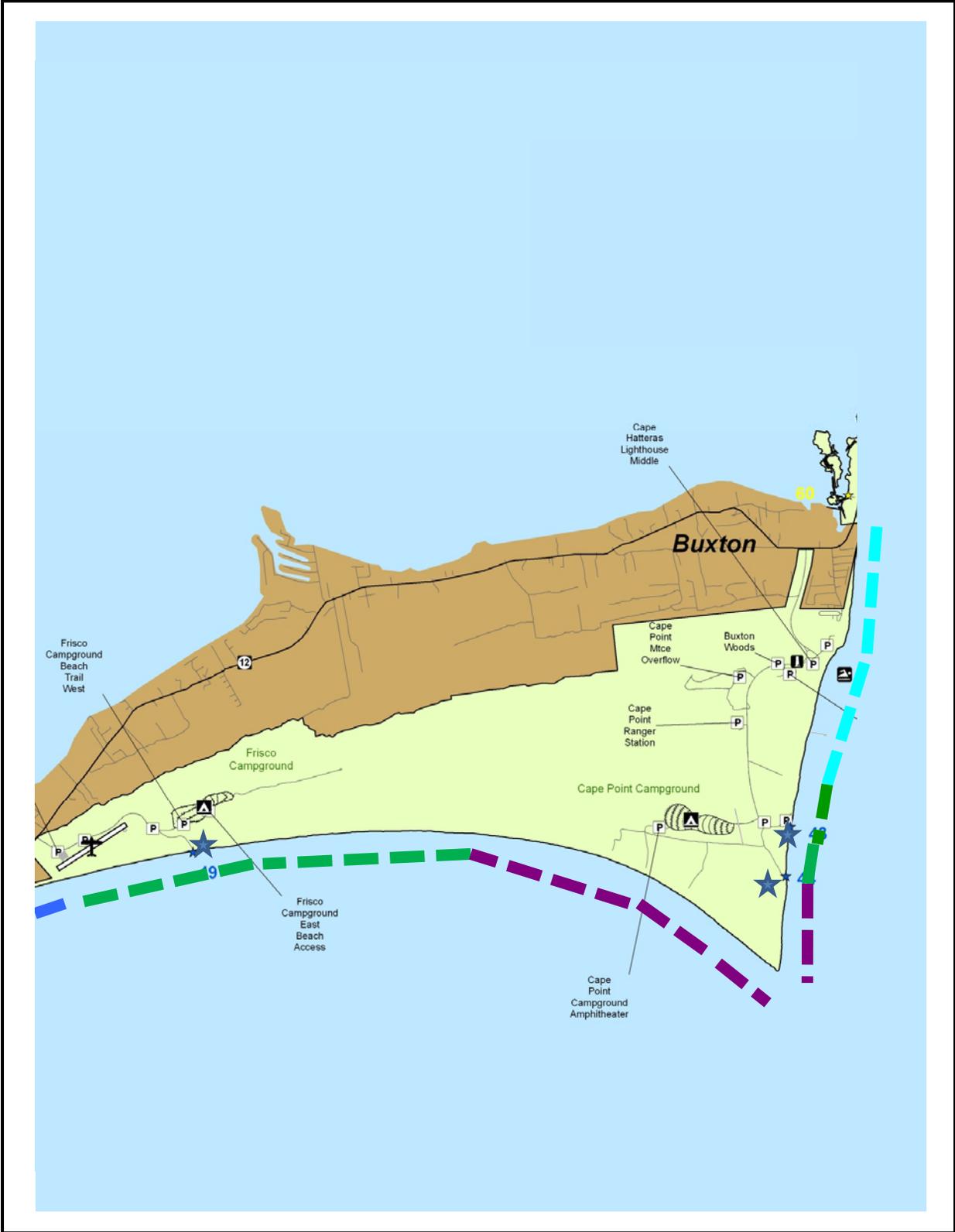
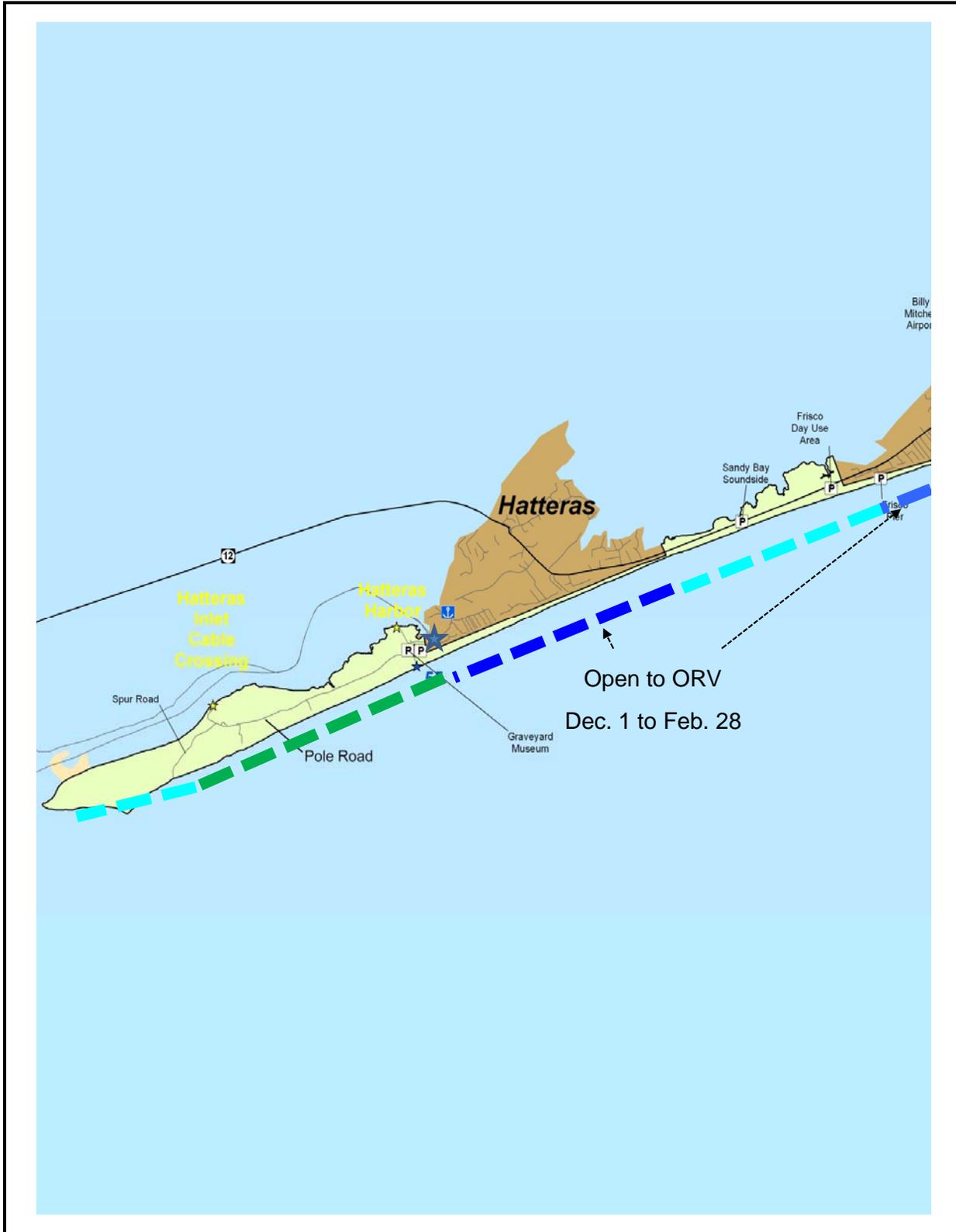


Figure C-6. Map 5



C-7. Map 6

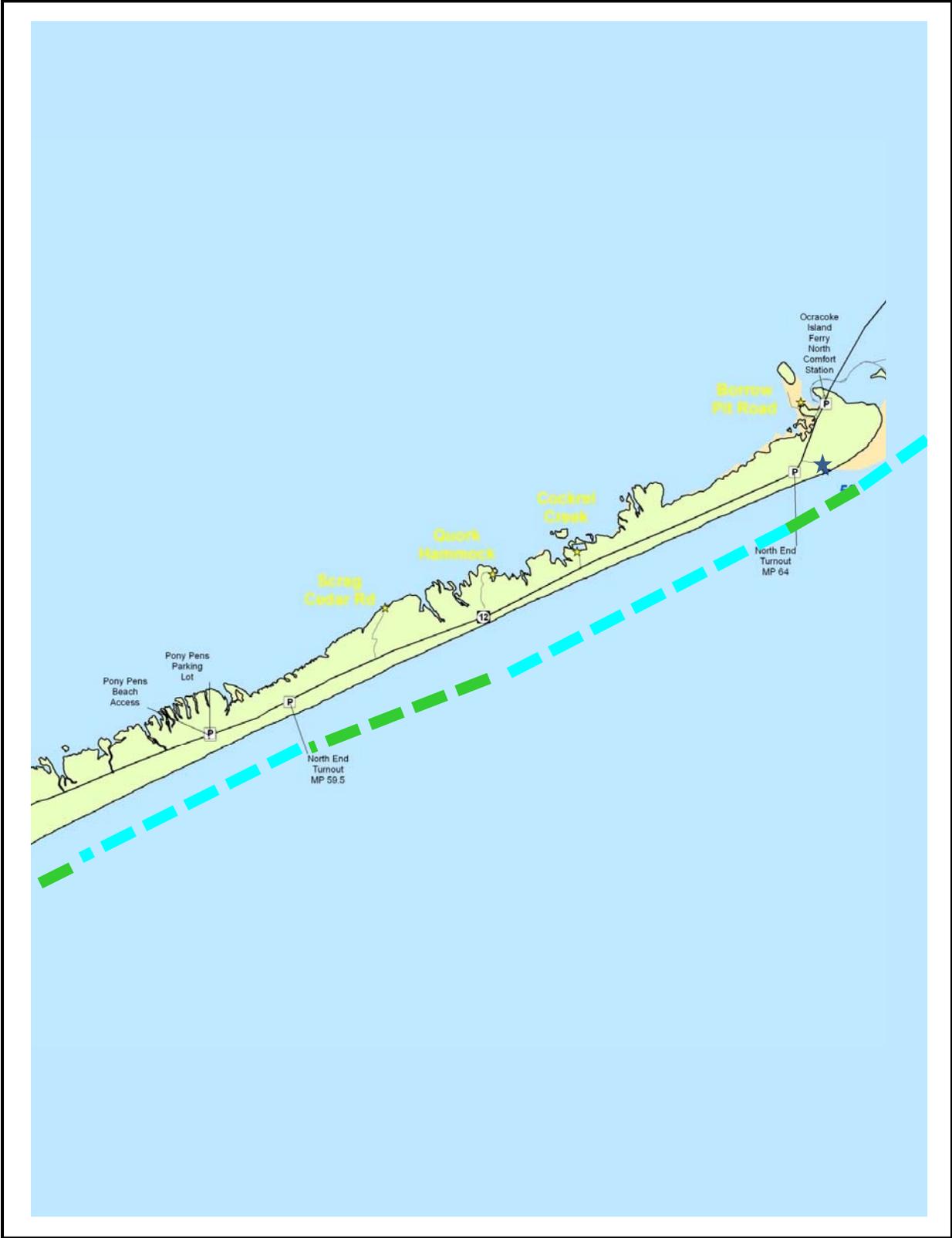
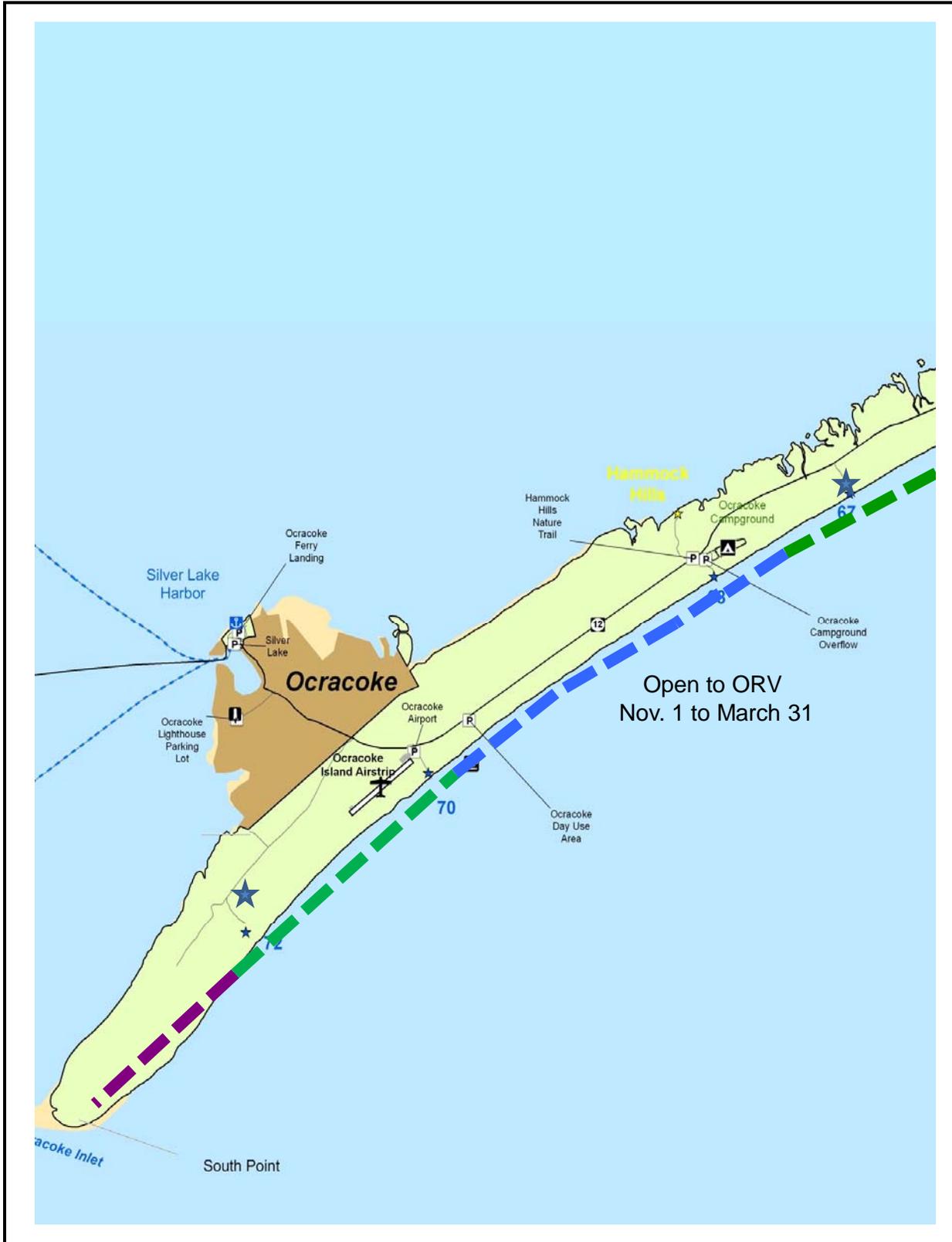


Figure C-8. Map 7



Appendix D: Responses from Local Residents

The sampling plan for the beach intercept survey included anyone on a segment of beach during the timeframe the surveys were conducted. Most of the respondents lived outside the Manteo and Outer Banks area. The out-of-town visitors are the primary focus for the analysis because their behavior in response to the proposed ORV management plans will have the biggest impact on the local economy. However, the sample also includes 17 local residents.

The following tables present the data collected from local residents. Due to the small sample size of local residents, many of the estimates have large confidence intervals. Local residents reported the same top four activities as the out-of-town visitors, however almost all of the local residents surveyed had driven on the beach during their current trip. Similar to the out-of-town visitors, the majority of local residents surveyed would have likely still taken their current trip despite proposed changes in ORV management.

Table D-1. Local Characteristics, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
How long have you lived at the Outer Banks (years)?	Value	13.08	11.08	15.09
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
How likely are you to permanently move away from the Outer Banks in the next 12 months	Very likely	0.00%	0.00%	0.00%
	Somewhat likely	1.31%	0.00%	3.67%
	Somewhat unlikely	0.00%	0.00%	0.00%
	Very unlikely	97.95%	94.65%	100.00%
	Don't know	0.77%	0.00%	2.94%
	Refuse	0.00%	0.00%	0.00%
Do you own a business on the Outer Banks?	Yes	13.04%	0.72%	25.36%
	No	86.96%	74.64%	99.28%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%

(continued)

Table D-1. Local Characteristics, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Do you currently work full- or part-time?	Yes	94.53%	79.68%	100.00%
	No	5.47%	0.00%	20.32%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
What type of business(es) do you work for?	Lodging (hotels, bed and breakfast, etc.)	1.14%	0.00%	3.89%
	Realty/housing rentals	0.00%	0.00%	0.00%
	Retail (recreation supplies, gift shops, clothing grocery stores, etc.)	1.23%	0.00%	3.90%
	Restaurants/snack bars, etc.	18.96%	0.00%	72.00%
	Services (residential, commercial, consulting, etc.)	1.19%	0.00%	3.82%
	Recreation (marinas, charter boats, parasailing, kayak tours)	0.41%	0.00%	1.59%
	Commercial fishing	0.00%	0.00%	0.00%
	Park employee	0.00%	0.00%	0.00%
	Government	27.09%	0.00%	61.31%
	Other	49.99%	14.80%	85.18%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%

Table D-2. Trips to Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Is this your first trip to Cape Hatteras National Seashore?	Yes	0.00%	0.00%	0.00%
	No	100.00%	100.00%	100.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
How many days did you visit the National Seashore in the months of January and February? Only count visits to the National Seashore, not visits to other beaches on the Outer Banks. Please give us your best estimate.	1 time a week or more	0.00%	0.00%	0.00%
	2-3 times a month	100.00%	100.00%	100.00%
	Once a month	0.00%	0.00%	0.00%
	Less than once a month	0.00%	0.00%	0.00%
	None	1.08%	0.00%	3.34%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
How many days did you visit the National Seashore in the months of March, April, and May?	1 time a week or more	97.94%	93.62%	100.00%
	2-3 times a month	1.73%	0.00%	5.24%
	Once a month	0.00%	0.00%	0.00%
	Less than once a month	0.34%	0.00%	1.24%
	None	0.00%	0.00%	0.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%

(continued)

Table D-2. Trips to Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
How many days did you visit the National Seashore in the months of June, July, and August?	1 time a week or more	89.03%	55.20%	100.00%
	2-3 times a month	10.97%	0.00%	44.80%
	Once a month	0.00%	0.00%	0.00%
	Less than once a month	0.00%	0.00%	0.00%
	None	0.00%	0.00%	0.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
How many days did you visit the National Seashore in the months of September and October?	1 time a week or more	56.48%	NA	NA
	2-3 times a month	0.00%	0.00%	0.00%
	Once a month	0.00%	0.00%	0.00%
	Less than once a month	0.00%	0.00%	0.00%
	None	43.52%	NA	NA
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
Thinking back to 2008, on average over the whole year how often did you use the beach in Cape Hatteras National Seashore in 2008? Only count visits to the National Seashore, not visits to other beaches on the Outer Banks.	1 time a week or more	91.12%	70.54%	100.00%
	2-3 times a month	4.90%	0.00%	17.17%
	Once a month	3.98%	0.00%	16.46%
	Less than once a month	0.00%	0.00%	0.00%
	None	0.00%	0.00%	0.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%

(continued)

Table D-2. Trips to Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Comparing 2008 and 2009, would you say you will probably spend more days in the National Seashore in 2009, about the same number of days ...	More	1.99%	0.00%	5.72%
	About the same	97.33%	92.97%	100.00%
	Fewer	0.68%	0.00%	2.50%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
Thinking back to 2007, on average over the whole year how often did you use the beach in Cape Hatteras National Seashore in 2007?	1 time a week or more	94.80%	82.21%	100.00%
	2-3 times a month	4.90%	0.00%	17.17%
	Once a month	0.30%	0.00%	1.12%
	Less than once a month	0.00%	0.00%	0.00%
	None	0.00%	0.00%	0.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
Comparing 2007 and (the current year), would you say you will probably spend more days in the National Seashore in (the current year), about the same number days ...	More	10.78%	0.00%	38.86%
	About the same	87.81%	58.46%	100.00%
	Fewer	1.42%	0.00%	4.24%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%

(continued)

Table D-2. Trips to Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
How often have you made trips this year to the rest of the Outer Banks, north of Cape Hatteras?	1 time a week or more	18.23%	0.00%	59.92%
	2-3 times a month	64.63%	5.90%	100.00%
	Once a month	15.78%	0.00%	56.90%
	Less than once a month	0.64%	0.00%	1.93%
	None	0.72%	0.00%	2.66%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
How many adults 18 and over you are with you on this trip today?	Value	2.30	1.58	3.01
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
How many children are with you on this trip today?	Value	1.03	0.26	1.81
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
How many hours do you plan to spend on the beach today?	Value	2.85	1.64	4.06
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
How would you rate this trip so far?	Very good	48.45%	1.97%	94.92%
	Good	50.88%	3.48%	98.28%
	Average	0.68%	0.00%	2.50%
	Poor	0.00%	0.00%	0.00%
	Very poor	0.00%	0.00%	0.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%

(continued)

Table D-2. Trips to Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Have you made trips to any other ocean beaches in North Carolina, south of Ocracoke Island in the last 12 months?	Yes	19.40%	0.00%	65.69%
	No	80.60%	34.31%	100.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
Have you made trips to any other ocean beaches anywhere in the U.S. in the last 12 months?	Yes	0.87%	0.00%	2.83%
	No	99.13%	97.17%	100.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%

Table D-3. Reported Impact of Alternatives

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
If the plan on this map (Alternative D) had been in place *before* you made any plans or reservations for this trip and before you put down any money on deposits, how likely is it that you would still have taken this trip?	Very likely	84.58%	44.19%	100.00%
	Somewhat likely	3.29%	0.00%	15.55%
	Somewhat unlikely	10.66%	0.00%	40.72%
	Very unlikely	0.70%	0.00%	2.68%
	Don't know	0.77%	0.00%	2.94%
	Refuse	0.00%	0.00%	0.00%

(continued)

Table D-3. Reported Impact of Alternatives (continued)

Question	Response	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
What do you think you most likely would have done instead?	Go to another part of the Outer Banks	8.92%	0.00%	75.59%
	Go to a different beach in North Carolina	0.00%	0.00%	0.00%
	Go to a different beach outside North Carolina	91.08%	24.41%	100.00%
	Go somewhere else, but not an ocean beach	0.00%	0.00%	0.00%
	Stay home	0.00%	0.00%	0.00%
	Don't know	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%
Under this plan, when no protected birds or turtles are nesting all the areas in blue would be closed to vehicles all year and all the areas in green would be open to vehicles all year. Do you think you would have taken more trips to Cape Hatteras National Seashore, fewer trips or the same number as you plan to in (the current year)?	I would have taken more trips	39.72%	5.22%	74.22%
	I would have taken the same number	45.63%	13.15%	78.11%
	I would have taken fewer trips	13.88%	0.00%	52.27%
	Don't know	0.77%	0.00%	2.94%
	Refuse	0.00%	0.00%	0.00%
If the areas in purple (Alternative F) were open for pedestrian and vehicle access more days during the spring, summer, and fall, would you have made more trips to Cape Hatteras National Seashore during (the current year)?	Yes	79.19%	30.85%	100.00%
	No	0.34%	0.00%	1.24%
	Don't know	20.48%	0.00%	68.51%
	Refuse	0.00%	0.00%	0.00%

Table D-4. Areas Visited at Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Areas	Statistic	What other parts of the National Seashore have you visited between the start of 2007 and now?			
		Yes	No	Don't Know	Refuse
Area north of Oregon Inlet and vehicle ramp 4?	Mean	82.76%	17.24%	0.00%	0.00%
	Lower bound	40.63%	0.00%	0.00%	0.00%
	Upper bound	100.00%	59.37%	0.00%	0.00%
The point of Oregon Inlet (south of vehicle ramp 4)?	Mean	98.01%	1.99%	0.00%	0.00%
	Lower bound	94.28%	0.00%	0.00%	0.00%
	Upper bound	100.00%	5.72%	0.00%	0.00%
Rodanthe to Buxton?	Mean	99.26%	0.74%	0.00%	0.00%
	Lower bound	97.26%	0.00%	0.00%	0.00%
	Upper bound	100.00%	2.74%	0.00%	0.00%
Ocean side of Hatteras Island *north* of the Cape Hatteras Lighthouse to Buxton?	Mean	99.26%	0.74%	0.00%	0.00%
	Lower bound	97.26%	0.00%	0.00%	0.00%
	Upper bound	100.00%	2.74%	0.00%	0.00%
Ocean side of Hatteras Island *south* of the Cape Hatteras Lighthouse to Cape Point?	Mean	99.26%	0.74%	0.00%	0.00%
	Lower bound	97.26%	0.00%	0.00%	0.00%
	Upper bound	100.00%	2.74%	0.00%	0.00%
Cape Point area?	Mean	99.26%	0.74%	0.00%	0.00%
	Lower bound	97.26%	0.00%	0.00%	0.00%
	Upper bound	100.00%	2.74%	0.00%	0.00%

(continued)

Table D-4. Areas Visited at Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Areas	Statistic	What other parts of the National Seashore have you visited between the start of 2007 and now?			
		Yes	No	Don't Know	Refuse
South Beach to the last vehicle access ramp on Hatteras Island (ramp 55)?	Mean	83.67%	16.33%	0.00%	0.00%
	Lower bound	42.18%	0.00%	0.00%	0.00%
	Upper bound	100.00%	57.82%	0.00%	0.00%
Hatteras Inlet at the end of Hatteras Island	Mean	83.00%	17.00%	0.00%	0.00%
	Lower bound	41.06%	0.00%	0.00%	0.00%
	Upper bound	100.00%	58.94%	0.00%	0.00%
North Ocracoke Spit, which is the south side of Hatteras Inlet on Ocracoke Island?	Mean	84.08%	15.92%	0.00%	0.00%
	Lower bound	42.88%	0.00%	0.00%	0.00%
	Upper bound	100.00%	57.12%	0.00%	0.00%
Ocracoke from vehicle ramp 59 south to vehicle ramp 72?	Mean	98.99%	1.01%	0.00%	0.00%
	Lower bound	96.89%	0.00%	0.00%	0.00%
	Upper bound	100.00%	3.11%	0.00%	0.00%
Ramp 72 to South Point at the end of Ocracoke Island?	Mean	99.33%	0.67%	0.00%	0.00%
	Lower bound	97.98%	0.00%	0.00%	0.00%
	Upper bound	100.00%	2.02%	0.00%	0.00%
The Sound side of Cape Hatteras?	Mean	71.04%	28.96%	0.00%	0.00%
	Lower bound	36.91%	0.00%	0.00%	0.00%
	Upper bound	100.00%	63.09%	0.00%	0.00%

(continued)

Table D-4. Areas Visited at Cape Hatteras, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval (continued)

Areas	Statistic	What other parts of the National Seashore have you visited between the start of 2007 and now?			
		Yes	No	Don't Know	Refuse
Any other parts of the National Seashore?	Mean	0.00%	100.00%	0.00%	0.00%
	Lower bound	0.00%	100.00%	0.00%	0.00%
	Upper bound	0.00%	100.00%	0.00%	0.00%

Table D-5. What Activities Have You Done So Far This Trip? Mean Estimate and 95% Confidence Interval

Activity	Mean	95% Confidence Interval Low	95% Confidence Interval High
Pier fishing	0.00%	0.00%	0.00%
Beach fishing	23.52%	0.00%	76.42%
Charter (offshore) fishing	0.00%	0.00%	0.00%
Swimming, sunbathing, or enjoying the beach	100.00%	100.00%	100.00%
Surfing or kite-surfing	5.19%	0.00%	17.75%
Birdwatching/wildlife-viewing	38.82%	12.63%	65.01%
Take a ferry	2.16%	0.00%	6.70%
Visit the Cape Hatteras Lighthouse or Bodie Island Lighthouse	0.00%	0.00%	0.00%
Visit historic sites in Cape Hatteras National Seashore	0.00%	0.00%	0.00%
Canoeing, kayaking, or sailing	1.69%	0.00%	5.53%
Driving on the beach during the day?	97.60%	93.08%	100.00%
Driving on the beach at night after 10 p.m.	0.00%	0.00%	0.00%
Other	0.98%	0.00%	3.05%

Table D-6. What Is Your Primary Activity for This Trip? Mean Estimate and 95% Confidence Interval

Activity	Mean	Low	High
Beach fishing	7.26%	0.00%	25.40%
Swimming, sunbathing, or enjoying the beach	75.14%	20.84%	100.00%
Surfing or kite-surfing	2.02%	0.00%	6.24%
Other	15.59%	0.00%	56.57%

Table D-7. Responses to Driving Permit Question by Value, Mean Estimate and Lower and Upper Bounds of the 95% Confidence Interval

Question	Response	\$10			\$25			\$100		
		Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	Mean	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
If required for beach driving, would you have paid (\$10, \$25, or \$100) to buy a 12-month permit for this trip?	Yes	98.37%	94.38%	100.00%	36.50%	0.00%	87.02%	98.11%	92.08%	100.00%
	No	0.00%	0.00%	0.00%	63.50%	12.98%	100.00%	1.89%	0.00%	7.92%
	Don't know	1.63%	0.00%	5.62%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Refuse	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%