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Project No. ASF22-077-03  
June 20, 2024

Ms. Kelsey Condell, MS  
Space Exploration Technologies  
P. O. Box 286  
Cape Canaveral, Florida 32920

**RE: SpaceX Boca Chica Launch Site - Pre- & Post- Launch Avian Monitoring – Launch #4  
Boca Chica, Cameron County, Texas  
25°59'39.53"N, 97°10'6.20"W**

Dear Ms. Condell:

**Raba Kistner, Inc. (RKI)** is pleased to submit the attached Pre- and Post-Launch Aviation Monitoring Report for the above-referenced property.

We appreciate the opportunity to have been of professional service on this important project. Should there be any questions or additional information required, please contact our office at your earliest convenience.

Very truly yours,

**RABA KISTNER, INC.**

A handwritten signature in blue ink, appearing to read 'EH'.

Ernesto Herrera, MS  
Environmental Scientist II

A handwritten signature in blue ink, appearing to read 'BO'.

Brady O'Neal  
Assistant Director, Environmental Planning & Permitting

EH/BON

**Attachments**

Figure 1 - Project Area Map  
Figure 2 - USGS Topographic Map  
Figure 3 - Pre-Launch Survey Results  
Figure 4 - Post-Launch Survey Results  
Attachment A – Survey Photographs  
Attachment B – Pre-Launch Avian Checklist  
Attachment C – Post-Launch Avian Checklist

Copies submitted: Above (1 Electronic PDF Copy)

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## 1.0 INTRODUCTION

The Space Exploration Technologies (SpaceX) Boca Chica Launch Site is located on SpaceX-owned land in Cameron County, Texas, near the cities of Brownsville and South Padre Island. SpaceX is responsible for conducting avian monitoring for sensitive shorebird species in association with the U.S. Fish and Wildlife Service (USFWS) as stipulated in the May 12, 2022 Final Biological and Conference Opinion (BO) and the 2022 Programmatic Environmental Assessment (PEA).

The purpose of this report is to discuss the results of the SpaceX pre- (no earlier than one week prior) and post- (up to one day after) launch avian surveys within a .6-mile radius of the launch site. Surveys within this radius were conducted along four different routes: Boca Chica Flats, Las Palomas, South Bay, and Boca Chica Beach (**Figure 1** and **Figure 2**). **Raba Kistner, Inc. (RKI)** conducted the pre-launch bird survey on Wednesday, June 05, 2024 and the post-launch survey on Thursday, June 06, 2024. These surveys were conducted to determine the presence of federally listed threatened/endangered avian species along the routes, targeting the following imperiled species: Wilson's Plover (*Charadrius wilsonia*), Snowy Plover (*Charadrius nivosus*), Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), and Aplomado Falcon (*Falco femoralis septentrionalis*).

## 2.0 METHODS

Upon each encounter of a target species, the number of individuals were counted, their general behavior (i.e. resting, perching, foraging, flying, copulating, displaying) was noted, and all legs were examined to determine the presence/absence of bands, and when possible, unique band numbers or unique color band combinations. The time of initial observation (recorded in the local time, Central Time), approximate distance of group or individual from the surveyor and waypoints were also noted during the surveys. Identification of avian species from longer ranges was fulfilled by utilizing binoculars, a long-distance scope, and a range finder to calculate distance from the surveyor.

Presence of non-target species was documented for all survey routes. Total number of species per route was then compared between pre- and post-launch along all routes.

Project area photographs are included in **Attachment A**.

## 3.0 RESULTS

### 3.1 Pre-Launch Survey

Two groups of two (2) **RKI** staff biologists conducted a pre-launch survey in accordance with Space X's Avian Monitoring Plan on Wednesday, June 05, 2024: Ernesto Herrera, Sabas Lopez III, Kevin Cutrera, and Victoria Gomez. The pre-launch survey took place less than one week prior to the launch, which was on Thursday, June 06, 2024. Local sunrise time was at 6:40 am. The survey began at 7:30 am. The weather during the survey was partially cloudy, with temperatures from 84° to 92°(F), 17-22 mile-per-hour (mph) winds, 25-50% cloud cover, and no precipitation. The most recent high tide was prior to the survey at 5:45 am and the next low tide was at 8:42 pm. The survey ended at 11:30 am. Survey methods included traversing Boca Chica Flats, Las Palomas, and South Bay routes on foot to avoid vegetated areas as much as possible; Boca Chica Beach route was traversed **using a vehicle**. At Aplomado Falcon survey points (APs), the surrounding area was observed for ten minutes in all directions.

**Boca Chica Beach:** The survey along the Boca Chica Beach route began at 10:40 am and ended at 11:15 am. **RKI** Biologists Ernesto Herrera and Sabas Lopez III traveled from south to north along the beach utilizing a company vehicle. Weather conditions were partly cloudy, with a temperature of 88°F, 25% cloud cover, 19 mph winds, no precipitation, and a falling tide. Few vehicles were observed traveling along the beach, with most of the activity occurring near the Boca Chica Boulevard beach entrance. The following targeted species observations were made:

- At 10:45 am, one unbanded adult Wilson's Plover was observed foraging along the intertidal zone of the beach at 25.987788, -97.149822.

No other targeted federally-listed threatened or endangered species were identified. A total of 10 different avian species were observed along this route.

**South Bay:** The survey along the South Bay route began at 7:30 am and ended at 9:50 am. **RKI** Biologists Kevin Cutrera and Victoria Gomez traveled from south to north on foot. Weather conditions were partly cloudy with a temperature of 84°F, 19 mph winds, 50% cloud cover, no precipitation, and a falling tide; the flats at the southern end of this route were exposed. Two Aplomado Falcon points (APs) were located along this route. AP-1 was observed from 8:20 am to 8:30 am, and AP-2 was observed from 9:10 am to 9:20 am. There were no observations of Aplomado Falcons at either location. The following targeted species observations were made:

- At 7:45 am, eight unbanded Wilson's Plovers (five adults and three juveniles) were observed foraging within the mudflats at 26.001389, -97.153889.
- At 9:00 am, seven unbanded Wilson's Plovers (four adults and three juveniles) were observed foraging on the mudflats at 26.00640, -97.15513.
- At 9:18 am, five unbanded Wilson's Plovers (four adults and one juvenile) were observed foraging on the mudflats at 26.00938, -97.15639.
- At 9:25 am, three unbanded adult Wilson's Plovers were observed foraging on the mudflats at 26.01012, -97.15713.
- At 9:50 am, one unbanded adult Wilson's Plover was observed foraging on the mudflats at 26.01020, -97.15989.



Most of the species observed were approximately 100 yards between the South Bay route and the Boca Chica Flats route. No other targeted federally-listed threatened or endangered species were identified. A total of 23 different avian species were observed along this route.

**Boca Chica Flats:** The survey along the Boca Chica Flats route began at 10:20 am and ended at 11:30 am. **RKI** Biologists Kevin Cutrera and Victoria Gomez began traveling on the south side and moved northwest along the route on foot. Weather conditions were partly cloudy with a temperature of 92°F, winds of 22 mph, 25% cloud cover, no precipitation, and a falling tide the flats at the southern end of this route were exposed. The following targeted species observations were made:

- At 10:28 am, four unbanded Wilson's Plovers (two adults and two juveniles) were observed foraging within the mudflats at 26.00081, -97.15627.
- At 10:40 am, ten unbanded Wilson's Plovers (nine adults and one juvenile) were observed foraging, flying and chasing within the mudflats and shallow water at 26.00125, -97.15706.
- At 10:45 am, three unbanded adult Wilson's Plovers were observed flying above the mudflats at 26.00397, -97.15858.
- At 11:05 am, six unbanded adult Wilson's Plovers were observed flying and chasing within the mudflats and shallow water at 26.00631, -97.16046.

No other targeted federally-listed threatened or endangered species were identified. A total of 19 different avian species were observed along this route.

**Las Palomas:** The survey along the Las Palomas route began at 7:40 am and ended at 10:00 am. **RKI** Biologists Ernesto Herrera and Sabas Lopez III began traveling on the western end and traveled east on foot. Weather conditions were partly cloudy with a temperature of 84°F, 17 mph winds, 50% cloud cover, no precipitation, and a falling tide. Two Aplomado Falcon points were located along this route. AP-7 was observed from 8:05 am to 8:15 am, and AP-8 was observed from 9:43 am to 9:53 am. There were no observations of Aplomado Falcons at either location. The following targeted species observations were made:

- At 8:55 am, four unbanded adult Wilson's Plovers were observed foraging on the mudflats at 25.99275, -97.15942.
- At 9:05 am, one juvenile Wilson's Plover was observed foraging within the ATV tracks in the mudflats at 25.99199, -97.15984.
- At 9:28 am, three unbanded adult Wilson's Plovers were observed foraging on the mudflats at 25.98716, -97.15962.
- At 9:36 am, six unbanded adult Snowy Plovers were observed foraging on the mudflats at 25.98521, -97.159987.
- At 9:46 am, three unbanded adult Snowy plovers were observed foraging on the mudflats at 25.98374, -97.15942.

No other targeted federally-listed threatened or endangered species were identified. A total of 23 different avian species were observed along this route.

A complete list of all species observed at each of the four survey routes during the pre-launch survey can be found in **Attachment B**.

### 3.2 Post-Launch Survey

**RKI** staff biologists Ernesto Herrera, Sabas Lopez III, Kevin Cutrera, and Victoria Gomez conducted a post-launch survey on Thursday, June 06, 2024, the day of the launch. **RKI** performed the post-launch surveys using the same methods as the pre-launch methods above. The survey began at 10:20 am, immediately after the area was cleared for safe reentry. The weather during the survey was cloudy, with temperatures from 87° to 90 ° (F), 9-10 mph winds, 50% cloud cover, and no precipitation. The most recent high tide was prior to the survey at 6:45 am and the next low tide was at 9:30 pm. The survey ended at 1:05 pm. Survey methods included traversing Boca Chica Flats, Las Palomas, and South Bay routes on foot to avoid vegetated areas as much as possible; Boca Chica Beach route was traversed using a vehicle. At Aplomado Falcon survey points (APs), the surrounding area was observed for ten minutes in all directions.

**Boca Chica Beach:** The survey along the Boca Chica Beach route began at 12:30 pm and ended at 1:05 pm. **RKI** biologists traveled south to north utilizing a company vehicle. At the time of the survey, weather conditions were cloudy, with a temperature of 90°F, 10 mph winds, 50% cloud cover, no precipitation and a falling tide. There was a high concentration of vehicles and visitors at the entrance to Boca Chica Beach from State Highway 4 (SH4) as well as visitors driving north and south along the beach. The following targeted species observations were made:

- At 12:31 pm, one unbanded adult Snowy Plover was observed foraging along the intertidal zone of the beach at 25.98323, -97.14913.
- At 12:34 pm, two unbanded adult Wilson's Plovers were observed foraging along the intertidal zone of the beach at 25.98648, -97.14944.
- At 12:55 pm, one unbanded adult Wilson's Plover was observed foraging along the intertidal zone of the beach at 26.00126, -97.15071.

No other targeted federally listed threatened or endangered species were identified. A total of eight different avian species were observed along this route.

**South Bay:** The survey along the South Bay route began at 11:40 pm and ended at 12:50 pm. The surveyors traveled from south to north on foot. Weather conditions at the time of survey were cloudy, with a temperature of 89°F, 9 mph winds, 50% cloud cover, no precipitation, and a falling tide; the flats at the southern end of this route were observed to be flooded. Two Aplomado Falcon points were located along this route. AP-1 was observed from 11:45 am to 11:55 am, and AP-2 was observed from 12:10 pm to 12:20 pm. There were no observations of Aplomado Falcons at either location. The following targeted species observations were made:

- At 12:00 pm, two unbanded adult Wilson's Plovers were observed calling and foraging on the mudflats and marsh edges at 26.00579, -97.15475.
- At 12:14 pm, five unbanded adult Wilson's Plovers were observed flying and calling above the mud flats at 26.00938, -97.15639.
- At 12:26 pm, one unbanded adult Wilson's Plover was observed calling at the edge of the mud flats at 26.01048, -97.15736.
- At 12:46 pm, one unbanded adult Wilson's Plover was observed foraging on the mud flats at 26.00180, -97.15401.

No other targeted federally-listed threatened or endangered species were identified. A total of 17 different avian species were observed along this route.

**Boca Chica Flats:** The survey along Boca Chica Flats began at 10:30 am and ended at 11:37 am. The surveyors traveled from north to south on foot. Weather conditions during the time of the survey were cloudy with a temperature of 87°F, 9 mph winds, 50% cloud cover, no precipitation, and a falling tide; the flats at the southern end of this route were observed to be flooded. The following targeted species observations were made:

- At 10:50 am, two unbanded adult Wilson's Plovers were observed calling from the mudflats and shallow water at 26.00521, -97.15971.
- At 11:13 am, four unbanded adult Wilson's Plovers were observed calling from the mudflats and shallow water at 26.00125, -97.15706.
- At 11:20 am, three unbanded adult Wilson's Plovers were observed calling from the mudflats at 26.00170, -97.15800.
- At 11:25 am, two unbanded adult Wilson's Plovers were observed calling and foraging on the mudflats at 25.99979, -97.15646.

No other targeted federally-listed threatened or endangered species were identified. A total of 18 different avian species were observed along this route.

**Las Palomas:** The survey along the Las Palomas route began at 10:25 am and ended at 12:05 pm. The survey began at the western terminus of the one-mile radius and surveyors traveled east on foot. Weather conditions were cloudy with a temperature of 87°F, 9 mph winds, 50% cloud cover, no precipitation, and a falling tide. AP observation points were located along this route. AP-7 was observed from 10:41 am to 10:51 am, and AP-8 was observed from 11:50 am to 12:00 pm. No Aplomado Falcons were observed during this time. The following targeted species observations were made:

- At 10:29 am, one unbanded adult Wilson's Plover was observed foraging on the mudflats at 25.99131, -97.16924.
- At 10:43 am, one unbanded adult Wilson's Plover was observed flying over the mudflats at 25.99207, -97.16603.
- At 11:08 am, one unbanded adult Wilson's Plover was observed foraging on the mudflats at 25.99604, -97.15825.
- At 11:13 am, four unbanded adult Wilson's Plovers were observed foraging and calling on the mudflats at 25.99437, -97.158813.
- At 11:17, one unbanded adult Snowy Plover was observed foraging on the mudflats at 25.99339, -97.15867.
- At 11:38 am, four unbanded adult Wilson's Plovers were observed foraging on the mudflats at 25.98881, -97.16118.

No other targeted federally-listed threatened or endangered species were identified. A total of 26 different avian species were observed along this route.

A complete list of all species observed at each of the four survey routes during the post-launch survey can be found in **Attachment C**.

## 4.0 CONCLUSIONS

**Table 1** below shows the imperiled species observed during the pre-launch surveys, conducted on June 5, 2024. A total of 9 Snowy Plovers and 56 Wilson's Plovers were observed along the four routes during the pre-launch surveys. No Piping Plovers, Red Knots, or Aplomado Falcons were observed.

**Table 1: Pre-Launch Imperiled Species Identified**

	Boca Chica Beach	South Bay	Boca Chica Flats	Las Palomas	Total
Piping Plover	0	0	0	0	0
Snowy Plover	0	0	0	9	9
Wilson's Plover	1	24	23	8	56
Red Knot	0	0	0	0	0
Aplomado Falcon	0	0	0	0	0

**Table 2** below shows the imperiled species observed during the post-launch surveys, conducted on June 6, 2024. A total of 2 Snowy Plovers and 34 Wilson's Plovers were observed along the four routes during the post-launch surveys. No Piping Plovers, Red Knots, or Aplomado Falcons were observed.

**Table 2: Post-Launch Imperiled Species Identified**

	Boca Chica Beach	South Bay	Boca Chica Flats	Las Palomas	Total
Piping Plover	0	0	0	0	0
Snowy Plover	1	0	0	1	2
Wilson's Plover	3	9	11	11	34
Red Knot	0	0	0	0	0
Aplomado Falcon	0	0	0	0	0

During pre- and post-launch surveys, no deceased species were observed along any of the routes.

Based on the data obtained from pre- and post-launch surveys, **RKI** has determined that less imperiled species were observed in the post-launch survey when compared with the pre-launch survey.



## 5.0 REFERENCES

United States Geological Survey (USGS). *Historical Topographic Map. USGS 7.5-Minute Series, Mouth of the Rio Grande, Texas 2022 Quadrangle* (Accessed June 14, 2024).

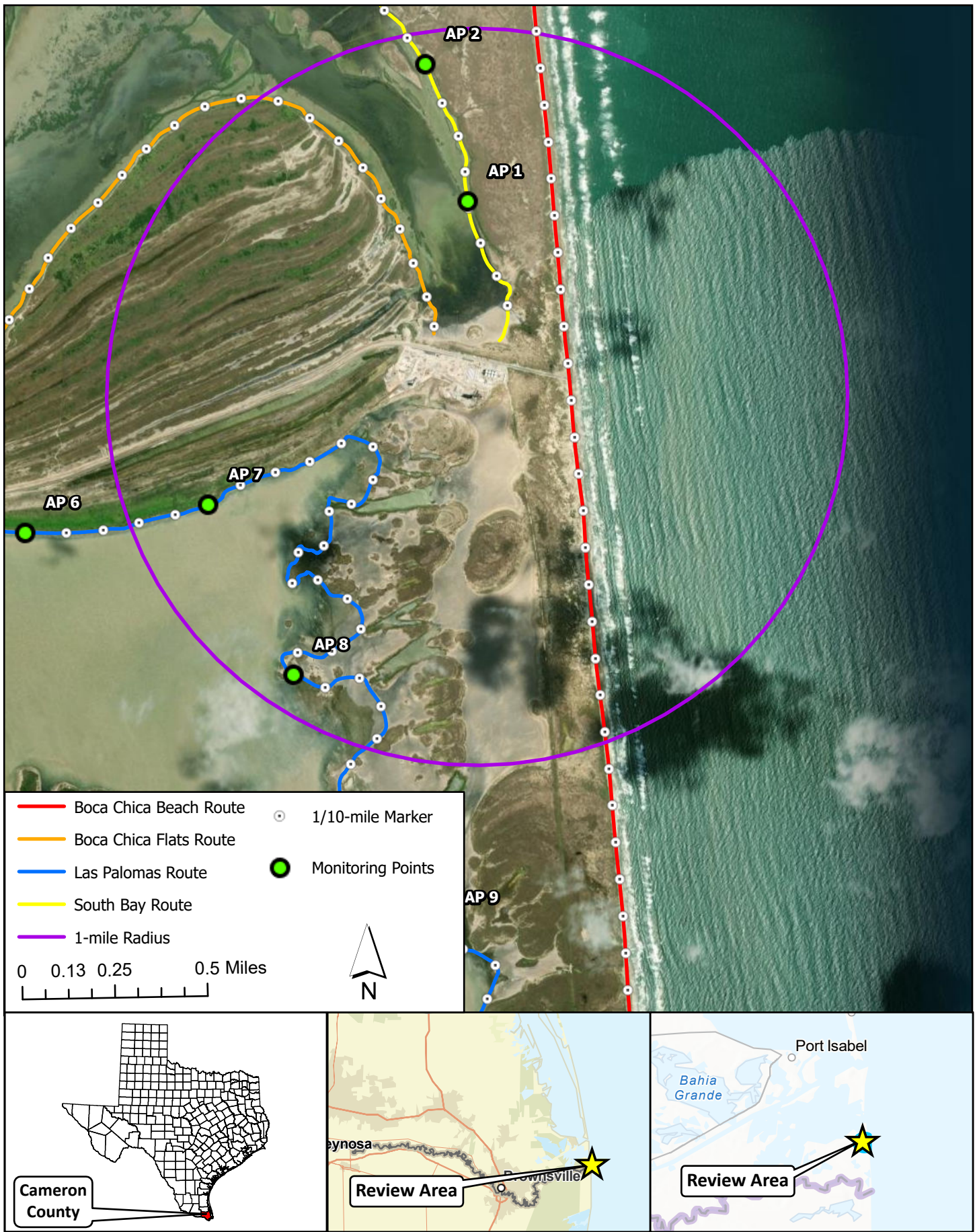
United States Fish and Wildlife Service. 2003. Interim Survey Methodology for the Northern Aplomado Falcon (*Falco femoralis septentrionalis*) in Desert Grasslands (Accessed June 14, 2024).

United States Fish and Wildlife Service. 2022. Final Biological and Conference Opinion on the SpaceX Starship/Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site, Cameron County, Texas (Accessed June 14, 2024).

Federal Aviation Administration. 2022. Final Programmatic Environmental Assessment for the SpaceX Starship/Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site in Cameron County, Texas (Accessed June 14, 2024).

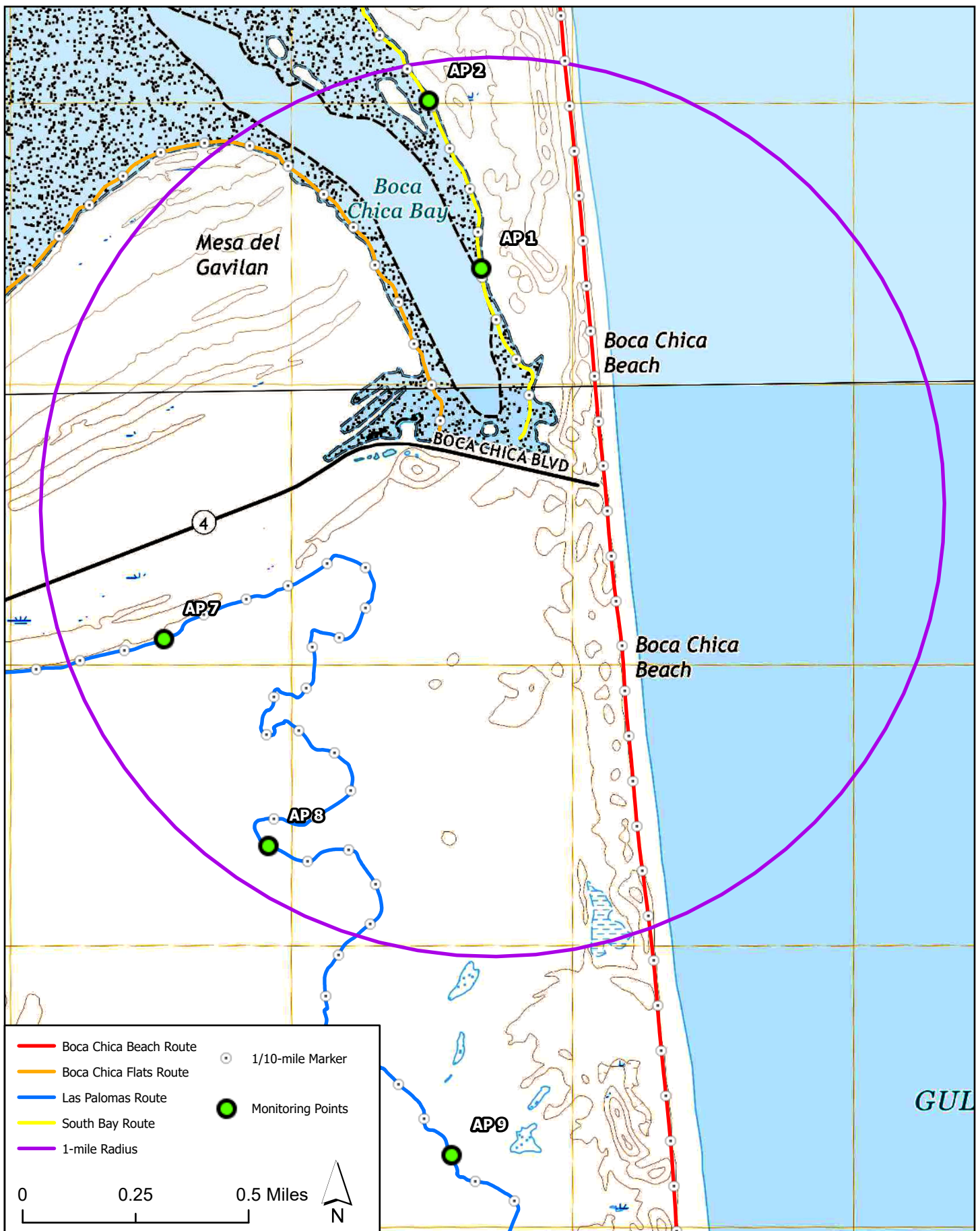
## FIGURES





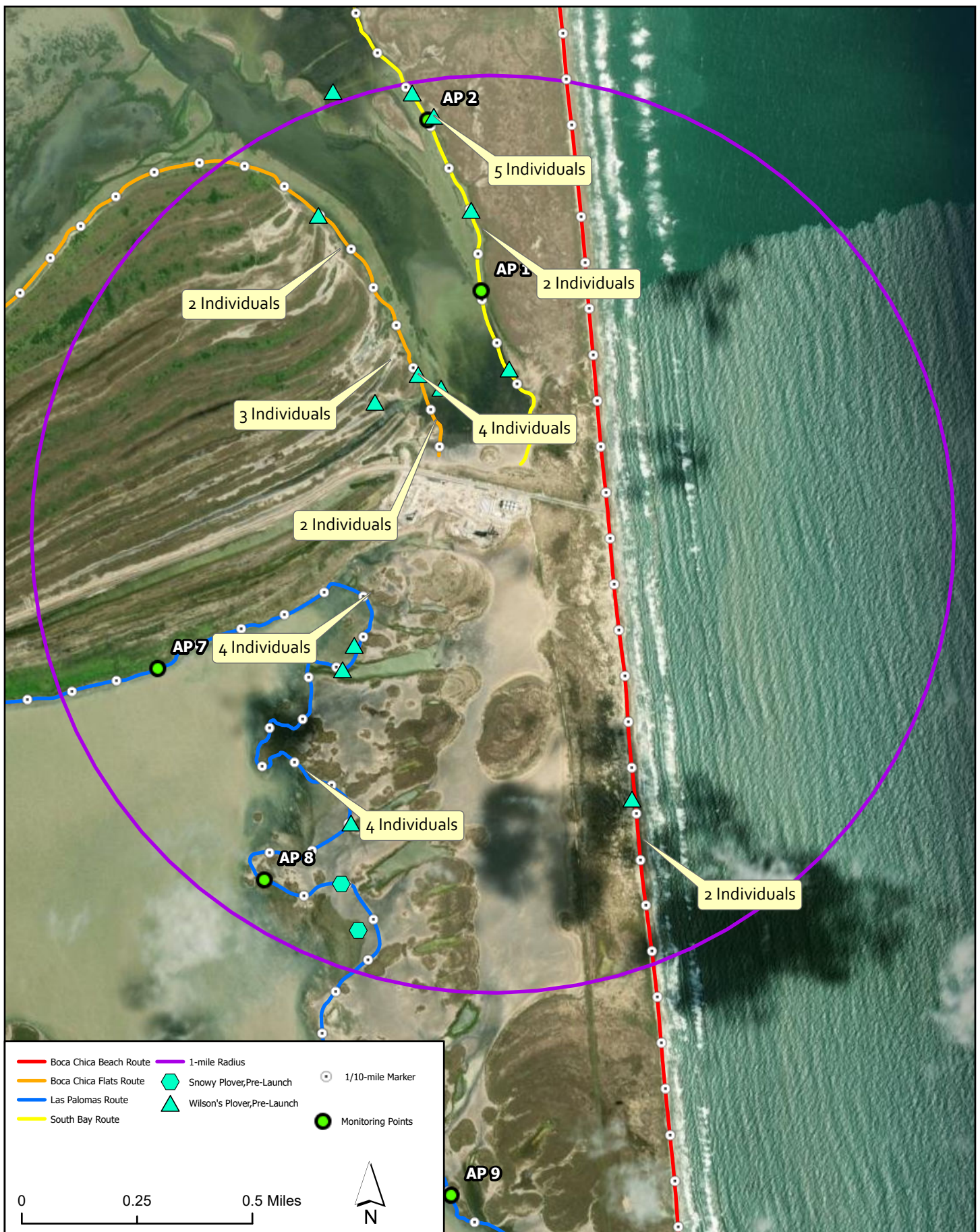
SOURCE: World Terrain Base: Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, Foursquare, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS





SOURCE:  
1) USGS 7.5-Minute Topographic Map: Port Isabel and Mouth of Rio Grande, TX, Quadrangles (2022)





Service Layer Credits: World Topographic Map: Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA  
World Imagery: Maxar, Microsoft

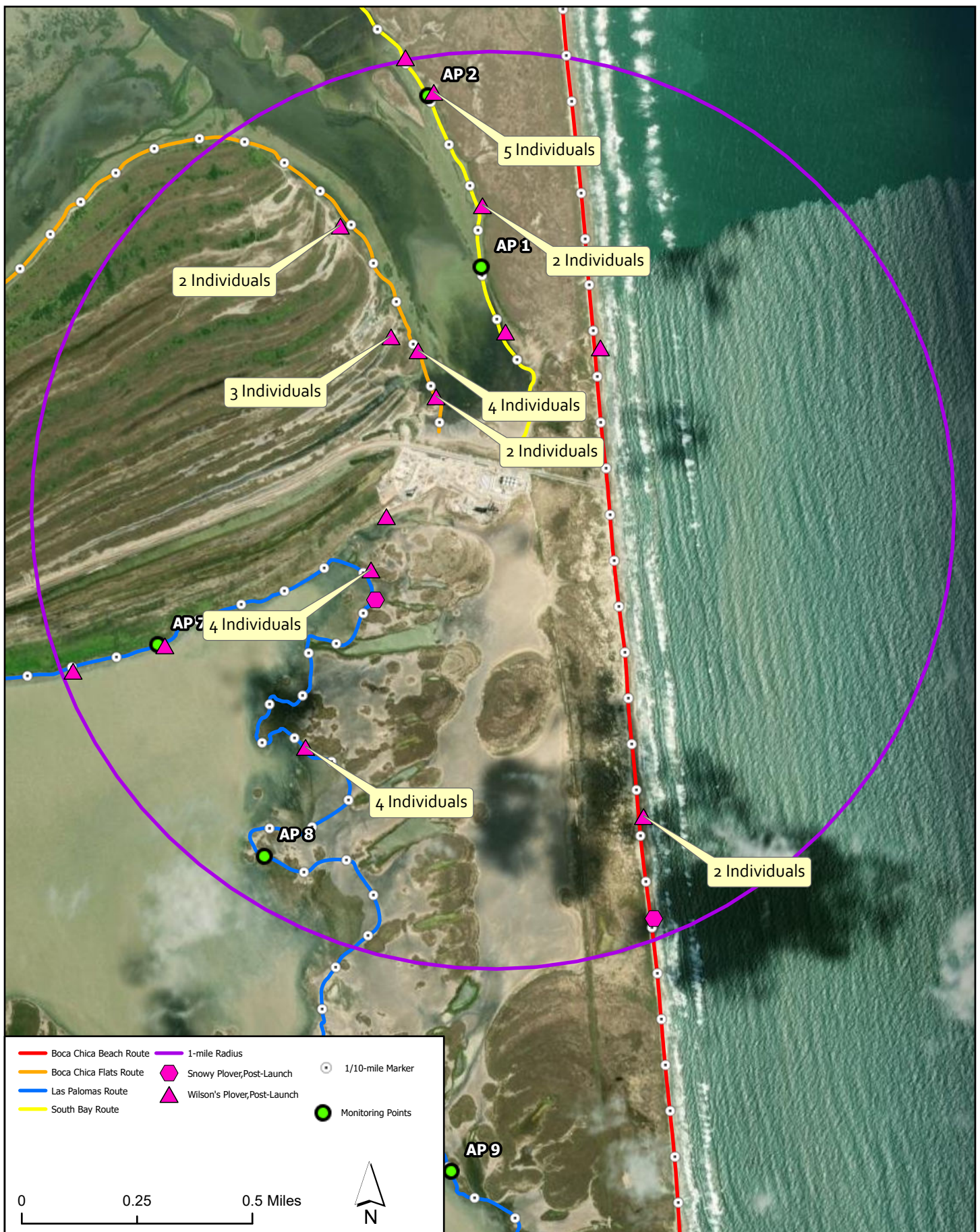
## PRE-LAUNCH SURVEY RESULTS

Pre- and Post-Launch Avian Monitoring  
Boca Chica, Cameron County, Texas  
ASF24-018-11

# FIGURE

# 3





Service Layer Credits: World Topographic Map: Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA  
World Imagery: Maxar, Microsoft

## POST-LAUNCH SURVEY RESULTS

Pre- and Post-Launch Avian Monitoring  
Boca Chica, Cameron County, Texas  
ASF24-018-11

# FIGURE

# 4

**ATTACHMENT A**

**PROJECT AREA PHOTOGRAPHS**





**Photo 1:** Las Palomas Route, Pre-Launch. View is to the Southwest (June 5, 2024)



**Photo 2:** Juvenile Wilson's Plover on Las Palomas Route, Pre-Launch. (June 5, 2024)



**Photo 3:** Las Palomas Route, Pre-Launch. View is to the West (June 5, 2024)



**Photo 4:** Boca Chica Flats Route, Pre-Launch. View is to the North. (June 5, 2024)





**Photo 5:** Boca Chica Flats Route, Pre-Launch. Great Egret within Vegetation. View is to the West. (June 5, 2024)



**Photo 6:** Boca Chica Flats Route, Pre-Launch. View is to the South. (June 5, 2024)



**Photo 7:** South Bay Route, Pre-Launch. View is to the East. (June 5, 2024)



**Photo 8:** South Bay Route, Pre-Launch. View is to the North. (June 5, 2024)





**Photo 9:** Las Palomas Route, Post-Launch. Debris from Launch. View is to the East. (June 6, 2024)



**Photo 10:** Las Palomas Route, Post-Launch. View is to the South. (June 6, 2024)



**Photo 11:** Boca Chica Flats Route, Post-Launch. Adult Wilson's Plovers on Mudflats. View is to the East. (June 6, 2024)



**Photo 12:** Boca Chica Flats Route, Post-Launch. View is to the South. (June 6, 2024)





**Photo 13:** South Bay Route, Post-Launch. Great Egret within Vegetation. View is to the North. (June 6, 2024)



**Photo 14:** South Bay Route, Post-Launch. View is to the South. (June 6, 2024)

**ATTACHMENT B**

**PRE-LAUNCH AVIAN CHECKLIST**

	Species	Boca Chica Flats	South Bay	Boca Chica Beach	Las Palomas
1	American Avocet				
2	American Golden-plover				
3	American Kestrel				
4	American Oystercatcher				
5	American Pipit				
6	American White Pelican				
7	American Wigeon				
8	<b>Aplomado Falcon</b>				
9	Baird's Sandpiper				
10	Bank Swallow				
11	Barn Swallow	X	X		
12	Belted Kingfisher				
13	Bewick's Wren				X
14	Black Skimmer				
15	Black Tern	X	X		X
16	Black-bellied Plover	X	X		
17	Black-necked Stilt		X		
18	Blue-winged Teal				X
19	Brown Pelican	X	X	X	X
20	Buff-bellied Sandpiper				
21	Caspian Tern	X	X		
22	Cassin's Sparrow				
23	Chihuahuan Raven				
24	Clapper Rail	X			
25	Cliff Swallow				
26	Common Nighthawk	X			
27	Common Yellowthroat				
28	<i>Cormorant Species</i>				
29	Crested Caracara				
30	Double-crested Cormorant				
31	<i>Dowitcher Species</i>				
32	<i>Duck Species</i>				
33	Dunlin				
34	Eastern Meadowlark	X	X		X
35	Eurasian Collared Dove				
36	Eurasian Starling				
37	Forster's Tern				
38	Grasshopper Sparrow				
39	Great Blue Heron	X	X	X	X
40	Great Egret	X	X		X
41	Greater Yellowlegs				X
42	Great-tailed Grackle	X	X	X	
43	Gull-billed Tern				
44	<i>Hawk Species</i>				

45	Herring Gull				
46	Horned Lark				
47	House Wren				
48	Killdeer				X
49	Laughing Gull	X	X	X	X
50	Least Sandpiper				
51	Least Tern		X	X	X
52	Lesser Yellowlegs				
53	Lincoln's Sparrow				
54	Little Blue Heron		X		X
55	Loggerhead Shrike				
56	Long-billed Curlew		X		
57	Long-billed Dowitcher				
58	Magnificent Frigatebird				X
59	Marbled Godwit				
60	Marsh Wren				
61	Mourning Dove	X			
62	Neotropic Cormorant				X
63	Northern Bobwhite		X		
64	Northern Harrier				
65	Northern Mockingbird				
66	Northern Pintail				
67	Northern Rough-winged Swallow				
68	Orange-crowned Warbler				
69	Osprey				
70	Palm Warbler				
71	Pectoral Sandpiper				
72	<i>Peep species</i>				
73	Peregrine Falcon				
74	Pied-billed Grebe				
75	<b>Piping Plover</b>				
76	Red-breasted Merganser				
77	Reddish Egret	X	X		X
78	<b>Red Knot</b>				
79	Red-winged Blackbird	X	X		X
80	Ring-billed Gull			X	
81	Roseate Spoonbill				
82	Royal Tern		X	X	X
83	Ruddy Turnstone		X		X
84	Sanderling			X	
85	Sandwich Tern		X		
86	Savannah Sparrow				
87	Scissor-tailed Flycatcher				
88	Seaside Sparrow				
89	Sedge Wren				

90	Semipalmated Plover				
91	Short-billed Dowitcher				
92	Snowy Egret				X
93	<b>Snowy Plover</b>				
94	<i>Sparrow Species</i>				
95	Solitary Sandpiper				X
96	Spotted Sandpiper				
97	Stilt Sandpiper				
98	<i>Swallow Species</i>				
99	Tree Swallow				
100	Tricolored Heron	X	X		X
101	Turkey Vulture				
102	Upland Sandpiper				
103	Vermillion Flycatcher				
104	Western Sandpiper				
105	White Ibis				
106	White-tailed Hawk				
107	Willet	X	X	X	X
108	<b>Wilson's Plover</b>	X	X	X	X
109	Yellow Warbler	X			
110	Yellow-rumped Warbler				
<b>Total</b>	<b>XX species</b> (+X ID'd to generic species)	<b>19</b>	<b>23</b>	<b>10</b>	<b>23</b>

**ATTACHMENT C**

**POST-LAUNCH AVIAN CHECKLIST**



	Species	Boca Chica Flats	South Bay	Boca Chica Beach	Las Palomas
1	American Avocet				
2	American Golden-plover				
3	American Kestrel				
4	American Oystercatcher				
5	American Pipit				
6	American White Pelican				
7	American Wigeon				
8	<b>Aplomado Falcon</b>				
9	Baird's Sandpiper				
10	Bank Swallow		X		
11	Barn Swallow				X
12	Belted Kingfisher				
13	Bewick's Wren				
14	Black Skimmer				
15	Black Tern		X		X
16	Black-bellied Plover				X
17	Black-necked Stilt				
18	Blue-winged Teal				
19	Brown Pelican		X	X	X
20	Buff-bellied Sandpiper				
21	Caspian Tern	X	X		X
22	Cassin's Sparrow				
23	Chihuahuan Raven				
24	Clapper Rail				
25	Cliff Swallow				
26	Common Nighthawk	X			X
27	Common Yellowthroat				
28	<i>Cormorant Species</i>				
29	Crested Caracara	X			
30	Double-crested Cormorant				
31	<i>Dowitcher Species</i>				
32	<i>Duck Species</i>				
33	Dunlin				
34	Eastern Meadowlark	X	X		X
35	Eurasian Collared Dove				
36	Eurasian Starling				
37	Forster's Tern	X			
38	Grasshopper Sparrow				
39	Great Blue Heron	X		X	X
40	Great Egret	X	X		X
41	Greater Yellowlegs				
42	Great-tailed Grackle	X	X		
43	Gull-billed Tern				
44	<i>Hawk Species</i>				

45	Herring Gull				
46	Horned Lark				
47	House Wren				
48	Killdeer				
49	Laughing Gull	X	X	X	X
50	Least Sandpiper				
51	Least Tern	X	X	X	X
52	Lesser Yellowlegs				
53	Lincoln's Sparrow				
54	Little Blue Heron				
55	Loggerhead Shrike				X
56	Long-billed Curlew		X		X
57	Long-billed Dowitcher				
58	Magnificent Frigatebird				
59	Marbled Godwit				
60	Marsh Wren				
61	Mourning Dove	X	X		
62	Neotropic Cormorant				X
63	Northern Bobwhite		X		
64	Northern Harrier				
65	Northern Mockingbird				
66	Northern Pintail				
67	Northern Rough-winged Swallow				
68	Orange-crowned Warbler				
69	Osprey				
70	Palm Warbler				
71	Pectoral Sandpiper				
72	<i>Peep species</i>				
73	Peregrine Falcon				
74	Pied-billed Grebe				
75	<b>Piping Plover</b>				
76	Purple Martin	X	X		
77	Red-breasted Merganser				
78	Reddish Egret	X			X
79	<b>Red Knot</b>				
80	Red-winged Blackbird	X	X		X
81	Ring-billed Gull				X
82	Roseate Spoonbill				X
83	Royal Tern				X
84	Ruddy Turnstone				
85	Sanderling				X
86	Sandwich Tern				
87	Savannah Sparrow				X
88	Scissor-tailed Flycatcher				
89	Seaside Sparrow				

90	Sedge Wren				
91	Semipalmated Plover				
92	Short-billed Dowitcher				
93	Snowy Egret	X			X
94	<b>Snowy Plover</b>			X	X
95	<i>Sparrow Species</i>				
96	Solitary Sandpiper				
97	Spotted Sandpiper				
98	Stilt Sandpiper				
99	<i>Swallow Species</i>				
100	Tree Swallow				
101	Tricolored Heron	X	X	X	X
102	Turkey Vulture				
103	Upland Sandpiper				
104	Vermillion Flycatcher				
105	Western Sandpiper				
106	White Ibis				
107	White-tailed Hawk				
108	Willet	X	X	X	X
109	<b>Wilson's Plover</b>	X	X	X	X
110	Yellow Warbler				
111	Yellow-rumped Warbler				
<b>Total</b>	<b>XX species</b> (+X ID'd to generic species)	<b>18</b>	<b>17</b>	<b>8</b>	<b>26</b>