BAPTISTE COLLETTE BAYOU
DREDGED MATERIAL DISPOSAL HISTORY

FY 2000

Under contract 99-C-0068, the cutterhead dredge DREDGE 32 (working from 4 November 1999 to 16 November 1999) removed a total of 163,610 CY from the jetty/bar channel reach between Station 390+00 (Mile 7.2) and Station 438+00 (Mile 8.3).

Approximately 163,610 CY were placed at marsh creation disposal site "**B**" to a maximum initial elevation of +3.5 feet MLG (with an estimated final design elevation of about +2.5 feet MLG following dewatering and compaction). About 21 acres of marsh habitat were created by this placement effort.

FY 2001

Under contract 00-C-0088, the cutterhead dredge MIKE HOOKS (working from 14 October 2000 to 10 December 2000) removed a total of 990,743 CY from the jetty/bar channel reach between Station 300+00 (Mile 5.65) and Station 520+00 (9.87).

Approximately 59,130 CY were placed unconfined at the marsh creation disposal site "**C**". Dredged material was pumped to a maximum initial elevation of +3.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction).

Approximately 159,350 CY were placed unconfined at the marsh creation disposal site "**D**". Dredged material was pumped to a maximum initial elevation of +3.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction). Dredged material previously placed at this disposal site had been limited to a maximum initial elevation of +4.0 feet MLG in an attempt to create a marsh peninsula feature. However, it was decided that this elevation was too high to achieve a final elevation conducive to the development of emergent marsh habitat at this site.

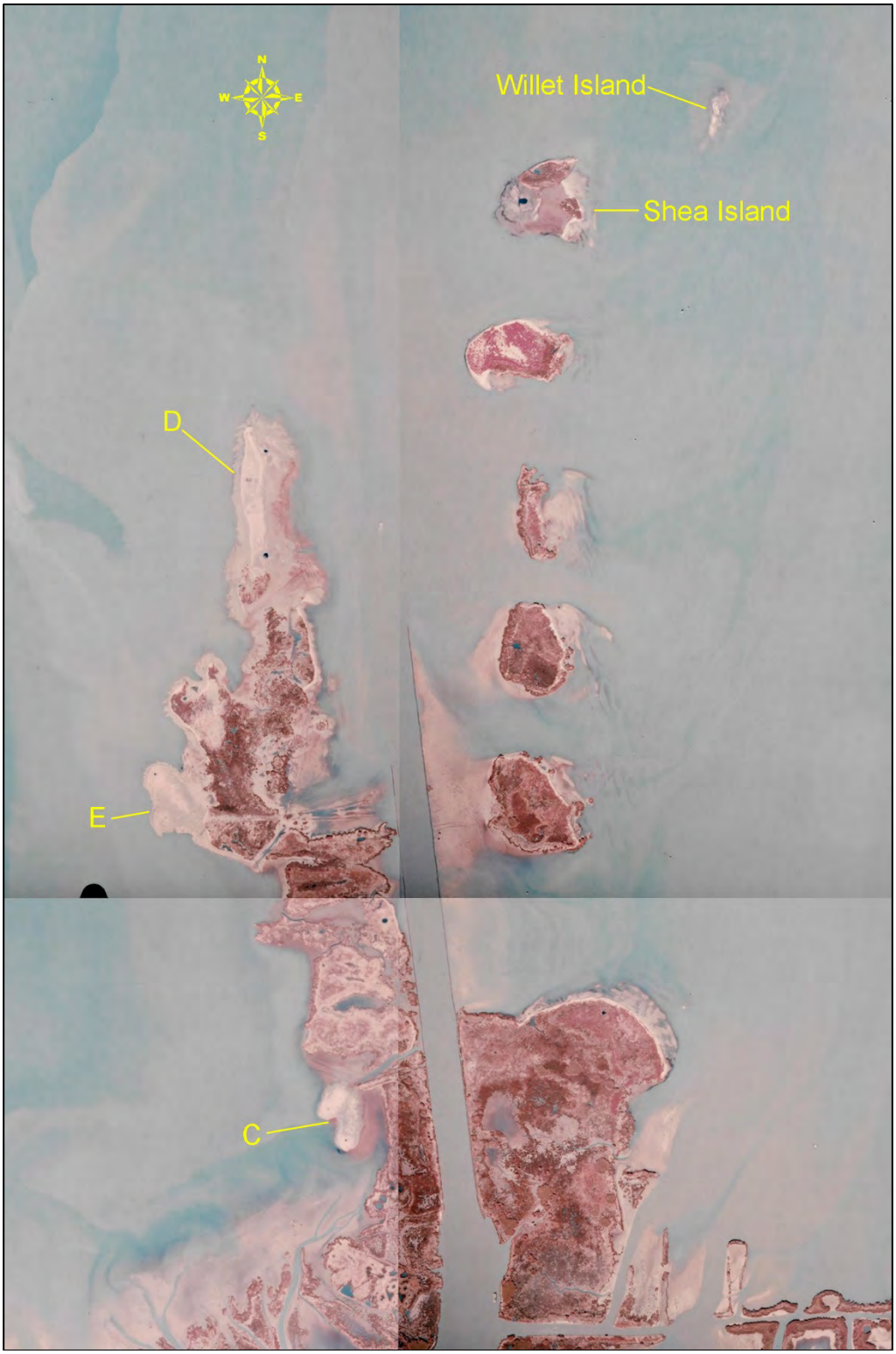
Approximately 227,075 CY were placed unconfined at the marsh creation disposal site "**E**" with the intent of rebuilding the peninsula feature that had eroded since dredged material was last placed at this site in 1999. Dredged material placed at this disposal site was pumped in a peninsula configuration oriented to the northwest beginning from the western end of the **Chris Spit North** marsh creation disposal site created in FY 1991. Material was pumped to a maximum initial elevation of +5.0 feet MLG (to result in a final elevation of +4.0 feet MLG following dewatering and compaction) to function as a barrier to wave erosion impacting the marsh habitat created in disposal sites "**A**", "**B**", and "**D**".

About 10 acres of marsh habitat were created by this placement of dredged material at disposal sites "**C**", "**D**", and "**E**".

Approximately 545,188 CY were placed unconfined at the **Shea Island** bird nesting disposal site. Dredged material was pumped on **Shea Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). Dredged material was first discharged into the hurricane-eroded middle section of **Shea Island** and then used to create a berm structure on the channel side of the island. The berm was intended to protect the island from wave erosion and provide a sediment trap to facilitate deposition of sediments suspended in the water column along **Shea Island's** shoreline. A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 10 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $1,324,801.

An interagency site visit to inspect Baptiste Collette disposal sites was conducted on 27 June 2001. Disposal site "**D**" was found to be comprised of fresh marsh vegetation with numerous open water channels transecting it. On **Shea Island** the recent placement of dredged material was bare land (although some vegetation was already becoming established on parts of it), and the separated parts of this island had been reconnected. However, the overall subaerial surface area of **Shea Island** remained reduced from pre-Hurricane Georges condition. A variety of birds (terns, gull, black skimmers, and pelicans) were observed using the island for loafing and foraging purposes. **Plover Island** was again heavily populated by nesting brown pelicans.



4 January 2001 Aerial Photography

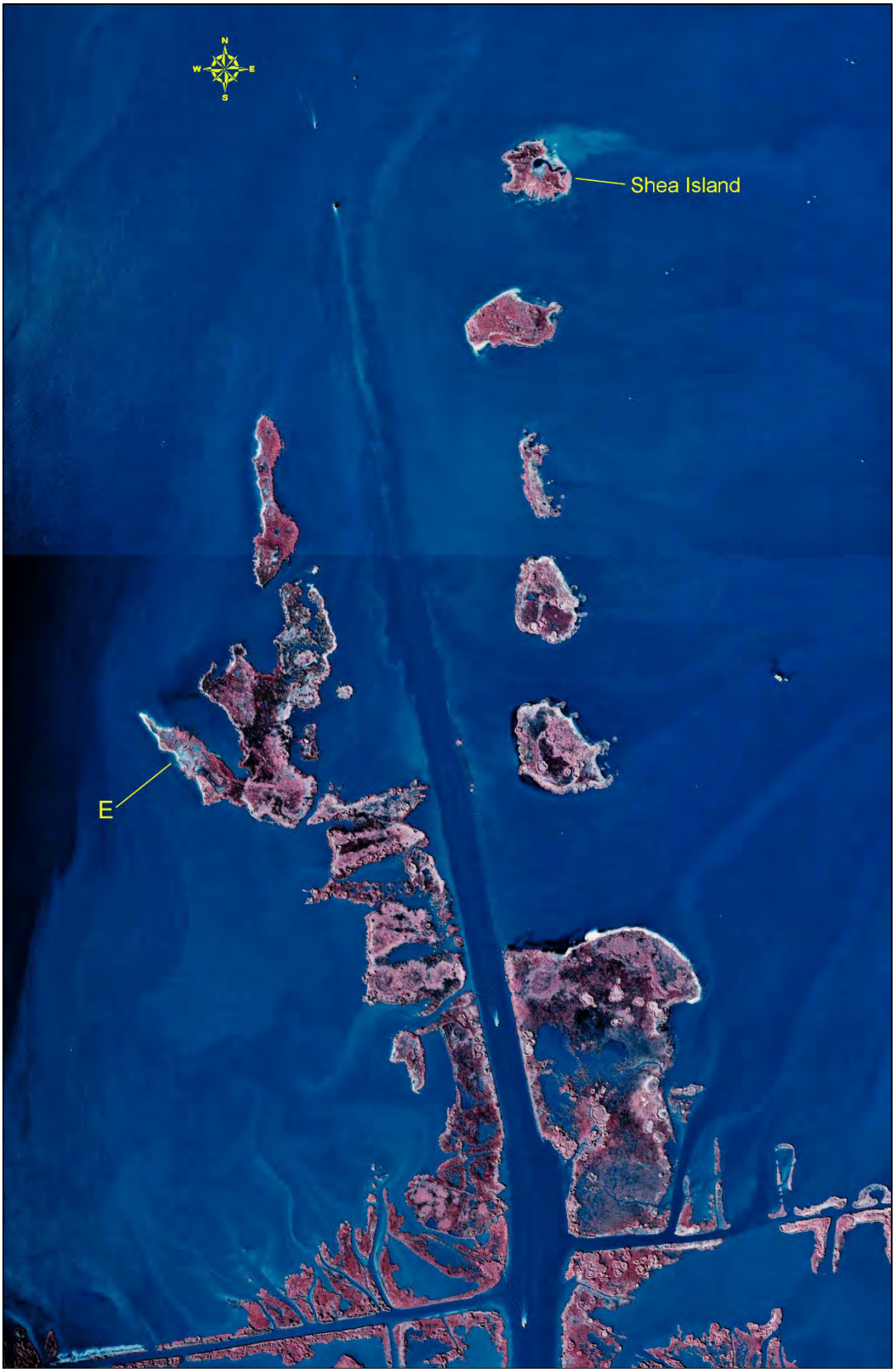
FY 2002

Under contract 02-C-0003, the cutterhead dredge TOM JAMES (working from 5 November 2001 to 22 November 2001) removed a total of 1,145,830 CY from the jetty/bar channel reach between Station 330+00 (Mile 6.25) and Station 520+00 (Mile 9.87).

Approximately 507,801 CY were placed at marsh creation disposal site "**E**" with the intent of extending this disposal site to the northwest. Material was pumped to a maximum initial elevation of +5.0 feet MLG (to result in a final elevation of +4.0 feet MLG following dewatering and compaction) in a peninsula configuration to function as a barrier to wave erosion impacting the marsh habitat created in disposal sites "**A**", "**B**", and "**D**". About 25 acres of marsh habitat were created by this placement effort.

Approximately 638,029 CY were placed at the **Shea Island** bird nesting disposal site. Dredged material was pumped on **Shea Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 25 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $2,039,062.



17 October 2002 Aerial Photography

FY 2003

Under contract 02-C-0074, the cutterhead dredge VENTURE (working from 27 October 2002 to 9 January 2003) removed a total of 1,580,093 CY from the jetty/bar channel reach between Station 330+00 (Mile 6.25) and Station 520+00 (Mile 9.87).

Approximately 523,840 CY were placed at marsh creation disposal site "**E**" with the intent of extending this disposal site to the northwest. Material was pumped to a maximum initial elevation of +5.0 feet MLG (to result in a final elevation of +4.0 feet MLG following dewatering and compaction) in a peninsula configuration to function as a barrier to wave erosion impacting the marsh habitat created in disposal sites "**A**", "**B**", and "**D**". About 16 acres of marsh habitat were created by this placement effort.

Approximately 95,300 CY were placed unconfined at the marsh creation disposal site "**B**". Dredged material was pumped to a maximum initial elevation of +3.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction). About 11 acres of marsh habitat were created by this placement effort.

Approximately 960,953 CY were placed at **Willet Island** bird nesting disposal site. Dredged material was pumped on **Willet Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 14 acres of bird nesting habitat were created by this placement effort.

Final contract cost was $2,265,050.

12 December 2003: Marsh Creation Disposal Sites on west side of channel

12 December 2003: Paul, Karen, Lynda, Plover, and Shea Bird Nesting Islands

12 December 2003: Willet Island east of other bird nesting islands

30 December 2003 Aerial Photography

FY 2005

Under contract 05-C-0036, the cutterhead dredge TOM JAMES (working from 4 June 2005 to 16 July 2005) removed a total of 1,229,289 CY from the jetty/bar channel reach between Station 330+00 (Mile 6.25) and Station 520+00 (Mile 9.87). During this work, the dredge was forced to shut down on 3 separate occasions due to the passage of Tropical Storm Arlene, Hurricane Cindy, and Hurricane Dennis.

Approximately 375,175 CY of dredged material was placed at marsh creation disposal area "**B**". Dredged material was pumped to a maximum initial elevation of +3.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction). About 124 acres of marsh habitat were created by this placement effort.

Approximately 854,114 CY of dredged material was placed at the **Willet Island** bird nesting disposal site. Dredged material was pumped on **Willet Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 25 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $2,200,509.

A site visit to the bird nesting islands was performed on 18 May 2005. About 16 Mottled Ducks were observed nesting on **Shea Island**. Also present on the island were Laughing Gulls, Clapper Rails, American Oystercatchers, and Red-Winged Blackbirds.

On **Plover Island**, about 400 Laughing Gulls, 34 Gull-Billed Terns, and 6 Snowy Egrets were observed nesting. Also present on the island were Ring-Billed Gulls, Herring Gulls, Black Skimmers, Royal Terns, Caspian Terns, Sandwich Terns, Bridled Terns, Mottled Ducks, Brown Pelicans, Sanderlings, Little Blue Heron, Barn Swallows, and Red-Winged Blackbirds.
Barn Swallows, Mottled Ducks, and Red-Winged Blackbirds were observed on **Lynda Island**.

A site visit to the created marsh disposal sites on the west side of the jetties was performed on 13 June 2005. Although water levels were high (about +4.0 feet MLG), a variety of birds (Laughing Gulls, Black Skimmers, Royal Terns, Caspian Terns, Gull-Billed Terns, and Brown Pelicans) were observed loafing/roosting on the portions of dredged material barely above the water surface.

The passage of Hurricane Katrina on August 29, 2005 in the vicinity of the Baptiste Collette Bayou navigation channel resulted in severe erosion and land loss at the beneficial use sites. Following passage of Hurricane Katrina, Willet Island was reduce to a submerged shoal.

December 2005 Aerial Photography

FY 2006

Under contract 06-D-0006, the cutterhead dredge PONTCHARTRAIN (working from 24 January 2006 to 31 March 2006) removed a total of 1,376,252 CY from the jetty/bar channel reach between Station 330+00 (Mile 6.25) and Station 520+00 (Mile 9.87). This work was performed in the aftermath of passages by Hurricane Katrina and Hurricane Rita.

Approximately 631,317 CY were placed at marsh creation disposal site "**E**" with the intent of extending this disposal site to the northwest. Material was pumped to a maximum initial elevation of +5.0 feet MLG (to result in a final elevation of +4.0 feet MLG following dewatering and compaction) in a peninsula configuration to function as a barrier to wave erosion impacting

the marsh habitat created in disposal sites "**A**", "**B**", and "**D**". About 100 acres of marsh habitat were created by this placement effort.

Approximately 744,935 CY were placed at the **Willet Island** bird nesting disposal site. Dredged material was pumped on **Willet Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 44 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $5,437,506.

A site visit performed on 27 April 2006 revealed that the passage of Hurricane Katrina had reduced elevations and overall size of all bird nesting islands. Much of the shrub vegetation on **Plover Island** had been destroyed. Despite this, it was observed that 2,000-4,000 brown pelicans were nesting on **Plover Island**.

April 2006 Aerial Photography

FY 2008

Under contract 08-C-0040, the cutterhead dredge DREDGE 32 (working from 1 May 2008 to 4 July 2008) removed a total of 1,108,115 CY from the jetty/bar channel reach between Station 300+00 (Mile 5.65) and Station 560+00 (Mile 10.6).

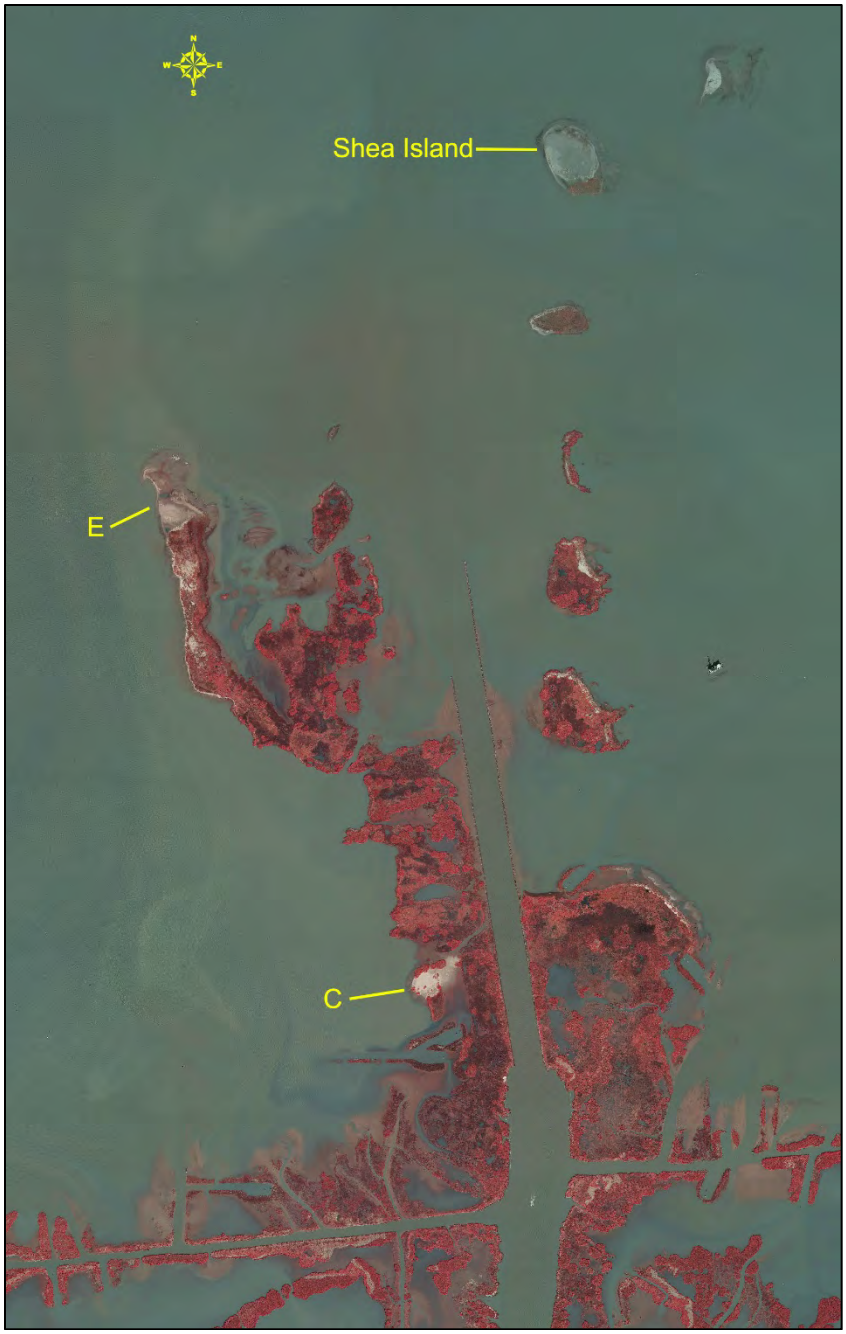
Approximately 46,233 CY were placed unconfined at marsh creation disposal site "**C**". Dredged material was to be pumped to a maximum initial elevation of +3.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction). However, high tide levels

(+4.5 feet MLG) during this work exceeded this placement height limit and the contractor was unable to determine if was exceeding the +3.5 feet MLG height restriction. As a result, the contractor was allowed to pump dredged material at this disposal site to a maximum initial elevation of +4.5 feet MLG. About 9 acres of marsh habitat were created by this placement effort.

Approximately 304,740 CY were placed unconfined at marsh creation disposal site "**E**" with the intent of extending this disposal site to the northwest. Material was pumped to a maximum initial elevation of +5.0 feet MLG (to result in a final elevation of +4.0 feet MLG following dewatering and compaction) in a peninsula configuration to function as a barrier to wave erosion impacting the marsh habitat created in disposal sites "**A**", "**B**", and "**D**". About 25 acres of marsh habitat were created by this placement effort.

Approximately 757,142 CY were placed unconfined at the **Shea Island** bird nesting disposal site. On 24 June 2008, seabirds were noted as nesting on the northern portion of **Shea Island**. The contractor shifted his disposal operations to the southern portion of the island to avoid disturbing the nesting seabirds. Dredged material was pumped on **Shea Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 27 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $3,989,252.



December 2008 Aerial Photography

FY 2010

Under contract 09-C-0090, the cutterhead dredge CALIFORNIA (working from 11 November 2009 to 5 February 2010) removed a total of 2,330,391 CY from the jetty/bar channel reach between Station 300+00 (Mile 5.65) and Station 560+00 (Mile 10.6).

Approximately 744,527 CY were placed unconfined at marsh creation disposal site "**B**". Dredged material was pumped to a maximum initial elevation of +3.5 feet MLG (to result in a

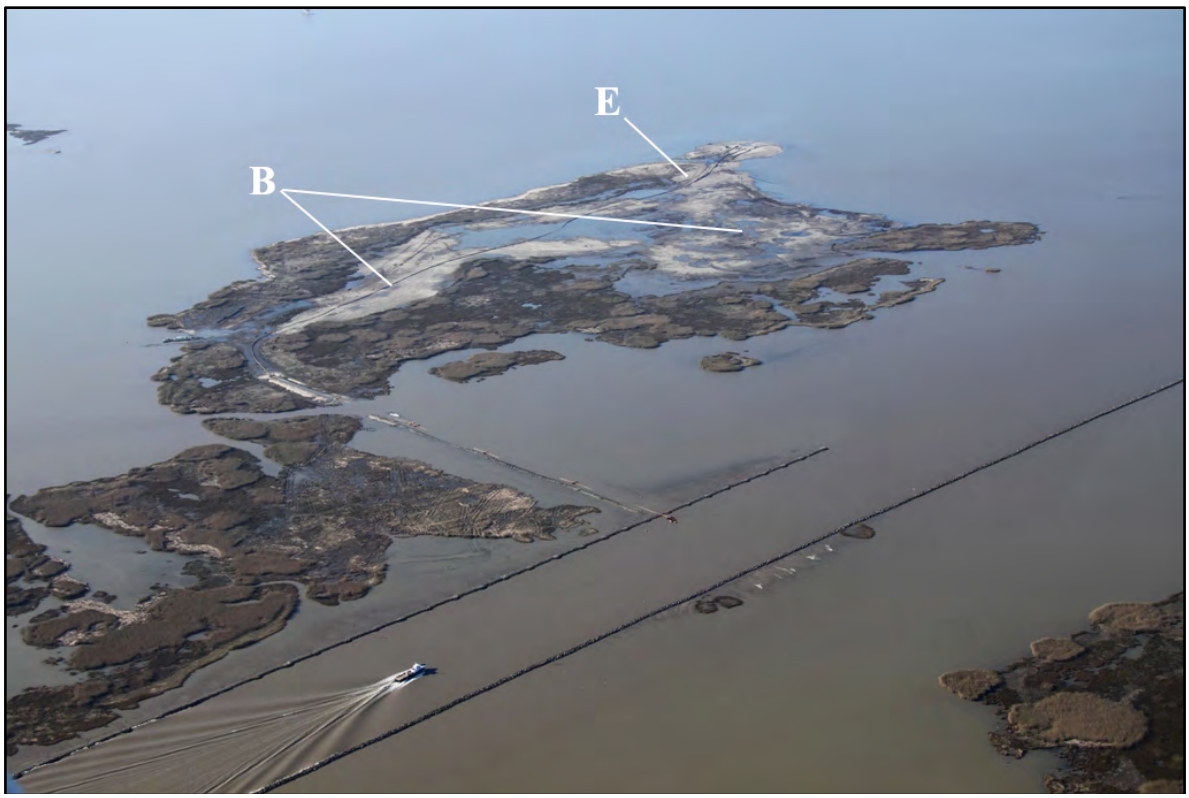
final elevation of +2.5 feet MLG following dewatering and compaction). About 149 acres of marsh habitat were created by this placement effort.

Approximately 224,338 CY were placed unconfined at marsh creation disposal site "**E**" with the intent of extending this disposal site to the northwest. Material was pumped to a maximum initial elevation of +5.0 feet MLG (to result in a final elevation of +4.0 feet MLG following dewatering and compaction) in a peninsula configuration to function as a barrier to wave erosion impacting the marsh habitat created in disposal sites "**A**", "**B**", and "**D**". About 13 acres of marsh habitat were created by this placement effort.

Approximately 1,361,526 CY were placed unconfined at the **Willet Island** bird nesting disposal site. Dredged material was pumped on **Willet Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 12 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $8,743,097.

December 2009: Marsh Creation Sites E and B (Contract 09-C-0090)



December 2009: Marsh Creation Sites B and E (Contract 09-C-0090)

December 2009: Willet Island placement site (Contract 09-C-0090)

December 2010 Aerial Photography

FY 2011

Under contract 11-C-0015, the cutterhead dredges JOHN LAQUAY and JN FISHER (working from 18 January 2011 to 15 April 2011) removed a total of 1,554,309 CY from the jetty/bar channel reach between Station 300+00 (Mile 5.65) and Station 560+00 (Mile 10.6).

Approximately 512,964 CY were placed at marsh creation disposal site "**G**", located adjacent to the east jetty at Station 368+89 (Mile 7.0). Shoal material removed from the channel segment for placement at disposal site "**G**" consisted of more sand than was typical for this dredging reach. Dredged material was to be pumped to a maximum initial elevation of +3.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction). However, a review of contractor surveys of disposal site "**G**" following completion of disposal operations revealed that the majority of this site had been pumped to elevations exceeding +3.5 feet MLG. The eastern edge of this site showed elevations reaching +10.0 feet MLG. The sandy nature of the dredged material resulted in rapid stacking of the material, and this contributed greatly to the exceedance of discharge elevation restrictions. A site visit on 9 May 2011 revealed the presence of nesting least terns scattered across surface of disposal site "**G**". No degradation work would be allowed until bird nesting activities had been completed. A site visit on 13 July 2011 revealed the presence of nesting least terns and black skimmers. A site visit on 23 August 2011 revealed the presence of nesting black skimmers. At this point it was decided that no degradation work at disposal site "**G**" could begin until at least 15 September (the "official" end of seabird nesting season).

During degradation operations (September – October 2011) at disposal site "**G**", no degrading work was allowed within 100 feet of the east jetty rock to prevent disturbances to the jetty foundation. Three small areas were allowed to remain at an elevation of approximately +4.0 feet MLG, the remainder of disposal site "**G**" was degraded to an elevation no higher than approximately +3.5 feet MLG. About 68 acres of marsh habitat were created by this placement effort.

Approximately 1,041,345 CY were placed at the **Willet Island** bird nesting disposal site. Dredged material was pumped on **Willet Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 26 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $5,806,830.

7 October 2011: Marsh Creation Site G (Contract 11-C-0015) looking east over jetties

December 2011 Aerial Photography

FY 2012

Under contract 11-C-0063, the cutterhead dredge MISSOURI H (working from 9 October 2011 to 12 December 2011) removed a total of 714,324 CY from the jetty/bar channel reach between Station 300+00 (Mile 5.65) and Station 560+00 (Mile 10.6).

Approximately 301,270 CY were placed on marsh creation disposal site **Peninsula E South**. Dredged material was placed as a series of single point discharges to construct an approximately

4,400-foot long peninsula feature aligned in a northwest to southeast direction starting approximately from Station 330+00 (about 1,700 feet west of the west jetty) and continuing to the northwest to approximate Station 372+92 (about 2,900 feet west of the west jetty). Material was pumped to a maximum initial elevation of +5.0 feet MLG (to result in a final elevation of +4.0 feet MLG following dewatering and compaction) to function as a barrier to wave erosion impacting previously created marsh habitat adjacent to the west jetty. About 25 acres of marsh habitat were created by this placement effort.

Approximately 434,364 CY were placed on the **Shea Island** bird nesting disposal site. Dredged material was discharged to extend the island to the northeast and pumped to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). Following completion of disposal operations, a survey revealed that an elevation of about +7.0 feet MLG was achieved at the 2 discharge locations on **Shea Island**. A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 33 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $2,517,720.

23 October 2011: Contract 11-C-0063

December 2011 Aerial Photography

FY 2012-2013

Under contract 12-C-0041, the cutterhead dredge E STROUD (working from 7 September 2012 to 20 December 2012) removed a total of 1,596,131 CY from the jetty/bar channel reach between Station 300+00 (Mile 5.65) and Station 560+40 (Mile 10.7).

Approximately 229,119 CY were placed unconfined at marsh creation disposal site "**F**". Dredged material was discharged to a maximum initial elevation of +3.5 feet MLG (to result in a

final elevation of +2.5 feet MLG following dewatering and compaction). About 95 acres of marsh habitat were created by this placement effort.

Approximately 234,773 CY were placed unconfined at the **Peninsula E South** marsh creation disposal site. Dredged material was discharged to a maximum initial elevation of +5.0 feet MLG (to result in a final elevation of +4.0 feet MLG following dewatering and compaction) to function as a barrier to wave erosion impacting previously created marsh habitat adjacent to the west jetty. About 72 acres of marsh habitat were created by this placement effort.

Approximately 1,132,239 CY were placed unconfined at the **Plover Island** bird nesting disposal site. Dredged material was pumped on **Plover Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 39 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $5,555,686.

A site visit to inspect on-going disposal work at **Plover Island** and current conditions at **Shea Island** and **Willet Island** was conducted on 18 December 2012. Nearly all vegetation on **Plover Island** had been covered over with dredged material (exceptions were found primarily along the southern and western edges of the island). It was anticipated that this island would remain mostly unvegetated through the 2013 bird nesting season (May through early September). Sandy material had stacked near the discharge point, and finer-grained sediments had flowed east and south to form a sloping ground gradient ending with mudflats at the water's edge. The contractor had built 3-foot wide sand berms to an elevation of +10 to +12 feet MLG to afford foot access to the middle portion of **Plover Island**. The sand berms extended north-south and east-west across the portion of the island receiving dredged material. Although the contractor had intended to degrade these sand berms to match the +8 feet MLG elevation of dredged material being placed here, it was decided to leave the sand berms in place as an experiment to provide an alternative-elevation nesting habitat to colonial nesting birds that could be using this site in 2013.

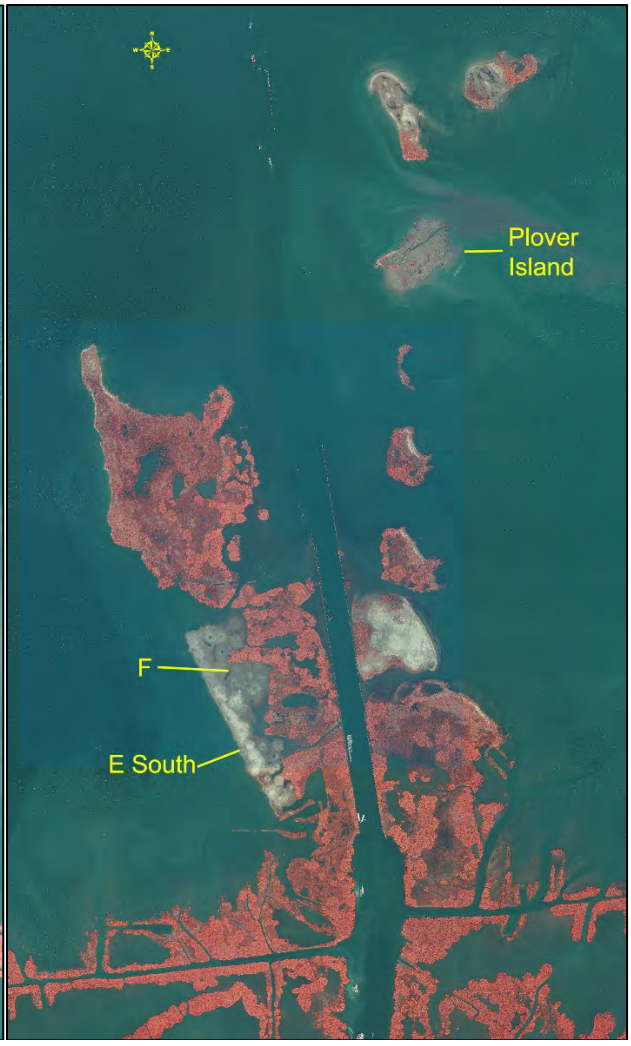
Inspection of **Shea Island** and **Willet Island** revealed that previous contracts had placed dredged material on these islands such that the mandated 1200-foot separation distance between bird nesting islands had been reduced to a distance less than 1000 feet. It was decided that no dredged material would be placed on either **Shea Island** or **Willet Island** until the 1200-foot separation distance between them has been re-established.

31 October 2012: Marsh Creation Sites E and F (Contract 12-C-0041)


31 October 2012: Plover Island (Contract 12-C-0041)

31 October 2012: Willet and Shea Islands (Contract 12-C-0041)

December 2012 Aerial Photography



December 2012 Aerial Photography

FY 2013

Under contract 13-C-0034, the cutterhead dredge CAPTAIN FRANK (working from 20 September 2013 to 2 October 2013) removed a total of 348,571 CY from the jetty/bar channel reach between Station 300+00 (Mile 5.65) and Station 472+90 (Mile 8.9).

Approximately 170,273 CY were placed unconfined at marsh creation disposal site "**G**" to extend this site to the east. Dredged material was pumped to a maximum initial elevation of +4.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction). Dredged material placed at marsh creation disposal site **"G"** continues to contain a high concentration of sand. About 16 acres of marsh habitat were created by this placement effort.

Approximately 179,298 CY were placed unconfined at the **Plover Island** bird nesting disposal site. Dredged material was pumped on **Plover Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and

compaction). A minimum distance of 1,200 feet was maintained between adjacent bird nesting islands. About 5 acres of bird nesting island habitat were created by this placement effort.

Final contract cost was $1,821,931.

December 2013 Aerial Photography

FY 2014

1. Under contract 14-C-0027, the cutterhead dredge DREDGE 32 (working from 26 August 2014 to 4 September 2014) removed a total of 108,648 CY from the bar channel reach between Station 474+00 (Mile 8.9) and Station 515+35 (Mile 9.8).

Approximately 119,075 CY were placed at the **Gunn Island** bird nesting island disposal site. This was the initial construction effort for **Gunn Island**. Although dredged material was pumped on **Gunn Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction), the island did not break the water surface following completion of disposal activities under this contract. A minimum distance of 1,200 feet was maintained between the **Gunn Island** placement site and adjacent bird nesting islands.

Final contract cost was $784,320.

2. Under contract 14-C-0045, the cutterhead dredge GD MORGAN (working from 9 September 2014 to 16 September 2014) removed a total of 44,409 CY from the jetty channel reach between Station 294+60 (Mile 5.6) and Station 318+00 (Mile 6.1). Approximately 45,482 CY were placed at marsh creation disposal site "**G**". Dredged material was pumped to a maximum initial elevation of +4.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction). About 8 acres of marsh habitat were created by this placement effort.

Final contract cost was $1,194,759.

December 2014 Aerial Photography

FY 2016

1. Under contract 15-C-0053, the cutterhead dredge CAPTAIN FRANK (working from 6 October 2015 to 13 October 2015) removed a total of 272,684 CY from the bar channel reach between Station 413+20 (Mile 7.9) and Station 510+30 (Mile 10.0). Approximately 109,533 CY were placed on the northeast end of **Karen Island**, and approximately 163,151 CY were placed on the southeastern end of **Shea Island**. Dredged material was pumped on both bird nesting islands to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). About 10 acres of bird nesting island habitat were created at **Karen Island**, and about 10 acres of bird island nesting habitat were created at **Shea Island** by this placement effort.

30 November 2015: Karen Island

30 November 2015: Shea Island

30 November 2015: Bird Nesting Islands

20 November 2015 Aerial Photography

2. Under contract 16-C-0035, the cutterhead dredge E STROUD (working from 16 June 2016 to 9 September 2016) removed a total of 1,412973 CY from the jetty/bar channel reach between Station (270+00) and Station (560+00).

Approximately 946,068 CY were placed at the **Gunn Island** bird nesting island disposal site located approximately 4,500 feet west of Station 523+00. Dredged material was pumped on **Gunn Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 2,000 feet

was maintained between the **Gunn Island** placement site and adjacent bird nesting islands. About 15 acres of bird island nesting habitat were created by this placement effort.

Approximately 466,905 CY were placed at marsh creation disposal site "**G**". Dredged material was pumped to a maximum initial elevation of +4.5 feet MLG (to result in a final elevation of +2.5 feet MLG following dewatering and compaction). About 60 acres of marsh habitat were created by this placement effort.

A site inspection was conducted on 23 June 2016 at the **Gunn Island** disposal area under construction by contractor Mike Hooks to visually inspect progress of disposal operations. **Gunn Island**, the newest bird nesting island and still under construction, is one of a series of islands created by using dredged material for colonial nesting seabirds (pelicans, terns, gulls, and Black Skimmers).

Disposal operations were on-going at **Gunn Island** at the time of this site visit. Dredged material had been pumped to an elevation of about +4.0-5.0 feet MLG (the maximum pumping elevation is +8.0 feet MLG). The subaerial portion of **Gunn Island** was about 1 acre in size. Dredged material being pumped onto this island primarily consisted of sand. Terns and gulls were seen loafing along the subaerial rim of the island with the dredge pipeline actively discharging at the island's center. The contractor had installed reflective flagging on poles to discourage nesting attempts.

Although **Shea Island** is now heavily vegetated over most of its surface, lots of terns, gulls, Black Skimmers, and Brown Pelicans were loafing on the sandy spit created during FY 2015. A Black-Necked Stilt was seen exhibiting nest protection behavior. Numerous coyote tracks were present on this island.

Marsh creation disposal site "**G**" was heavily vegetated. The contractor had recently set up a discharge pipeline on "**G**" in preparation for disposal operations once they complete disposal at **Gunn Island**. Disposal site "**G**" would be extended to the east under this maintenance dredging effort.

Lynda Island continues to reduce in size. Once it has entirely eroded/subsided below the water surface there will be a gap of approximately 3,100 feet separating **Karen Island** from **Plover Island**. This distance should present a greater challenge to predators seeking to access the outer bird nesting islands of **Plover**, **Shea**, **Willet**, and **Gunn**.

23 June 2016: Gunn Island with on-going dredge discharge

23 June 2016: Shea Island northeastern shoreline view

23 June 2016: Marsh Creation Site “G” looking west with dredge discharge pipeline installed

20 November 2016 Aerial Photography

Fiscal Year 2018

Under contract 17-C-0053, the cutterhead dredge ROBERT M WHITE (working from 28 January 2018 to 18 February 2018) removed a total of 836,119 CY from the jetty/bar channel reach between Mile 7.5 (Station 405+55) and Mile 10.0 (Station 518+00).

Approximately 836,119 CY were placed at the **Gunn Island** bird nesting island disposal site located approximately 4,500 feet west of Station 523+00. Dredged material was pumped on **Gunn Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 2,000 feet was maintained between the **Gunn Island** placement site and adjacent bird nesting islands. About 12 acres of bird island nesting habitat were created by this placement effort.

November 2018 Aerial Photography

Fiscal Year 2019

Under contract 19-C-0030, the cutterhead dredge CROSBY DREDGER (working from 29 July 2019 to 30 September 2019) removed a total of 942,598 CY from the jetty/bar channel reach. All dredged material was placed at the **Gunn Island** bird nesting island disposal site. Dredged material was pumped on **Gunn Island** to a maximum initial elevation of +8.0 feet MLG (to achieve a final elevation of about +6.0 feet MLG following dewatering and compaction). A minimum distance of 2,000 feet was maintained between the **Gunn Island** placement site and adjacent bird nesting islands. About 56 acres of bird island nesting habitat were created by this placement effort.

December 2019 Aerial Photography