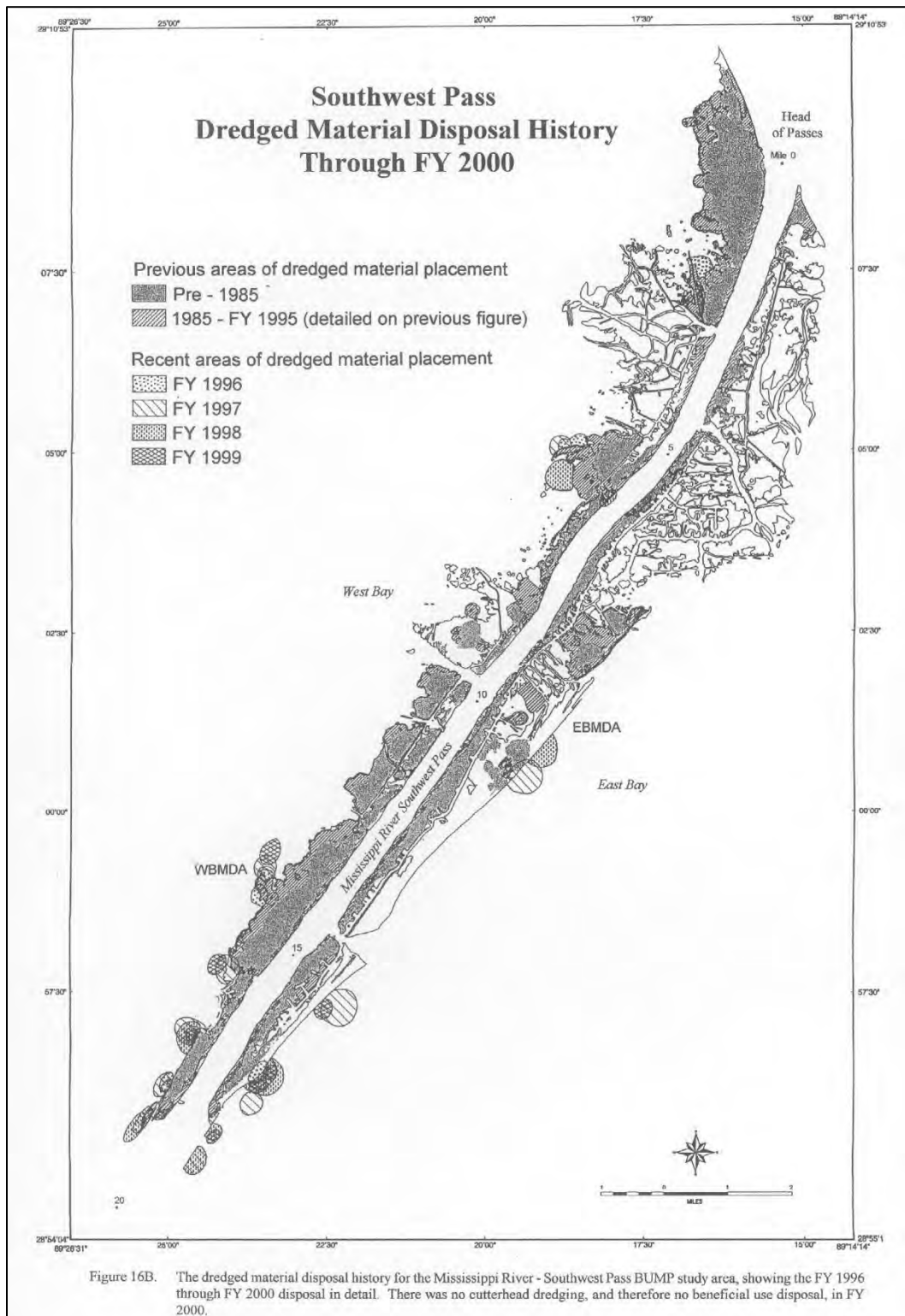


BENEFICIAL USE OF DREDGED MATERIAL DISPOSAL HISTORY MISSISSIPPI RIVER, BATON ROUGE TO THE GULF OF MEXICO, LA, SOUTHWEST PASS



Fiscal Year 2000

During **FY 2000**, no cutterhead dredging was performed in Southwest Pass due to the low water conditions experienced in the Mississippi River.

Fiscal Year 2001

Under contract **01-C-0032**, the cutterhead dredge CALIFORNIA (working from 20 April 2001 to 12 June 2001) removed a total of 3,194,981 gross cubic yards (CY) from the Southwest Pass Mile 15.0 Below Head of Passes (BHP) to Mile 18.0 BHP dredging reach. Dredged material placed in shallow open water areas on the west side of the channel for marsh creation was limited to a maximum placement height of about +4.0 feet Mean Low Gulf (MLG). It was expected that this material would have a final elevation, following dewatering and compaction, of about +3.0 feet MLG.

West Side Placement: Marsh Creation

Approximately 358,353 CY were placed unconfined in shallow open water at about **Mile 17.0 BHP** on the west side of the channel for marsh creation. A total of about 10 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,016,505 CY were placed unconfined in shallow open water at about **Mile 17.8 BHP** on the west side of the channel for marsh creation. A total of about 14 acres of marsh habitat were created as a result of this placement effort.

Bankline Stabilization

Approximately 1,119,326 CY were placed unconfined behind foreshore rock dikes at **Mile 17.0 BHP** on the east side of the channel for bank stabilization. A total of about 25 acres of marsh habitat were created by this placement effort.

Approximately 206,778 CY were placed unconfined behind foreshore rock dikes at **Mile 17.4 BHP** on the east side of the channel for bank stabilization. A total of about 7 acres of marsh habitat were created by this placement effort.

Approximately 350,044 CY were placed unconfined behind foreshore rock dikes at **Mile 18.0 BHP** on the east side of the channel for bank stabilization. A total of about 5 acres of marsh habitat were created by this placement effort.

Approximately 143,975 CY were placed unconfined behind foreshore rock dikes at **Mile 18.5 BHP** on the east side of the channel for bank stabilization. A total of about 1 acre of marsh habitat was created by this placement effort.

Results

For this contract work, approximately 1,374,858 CY of dredged material were placed for marsh creation on the west side of the channel, and approximately 1,820,123 CY of dredged material were placed for bankline stabilization on the east side of the channel. A total of 62 acres of marsh habitat were created by this placement effort.

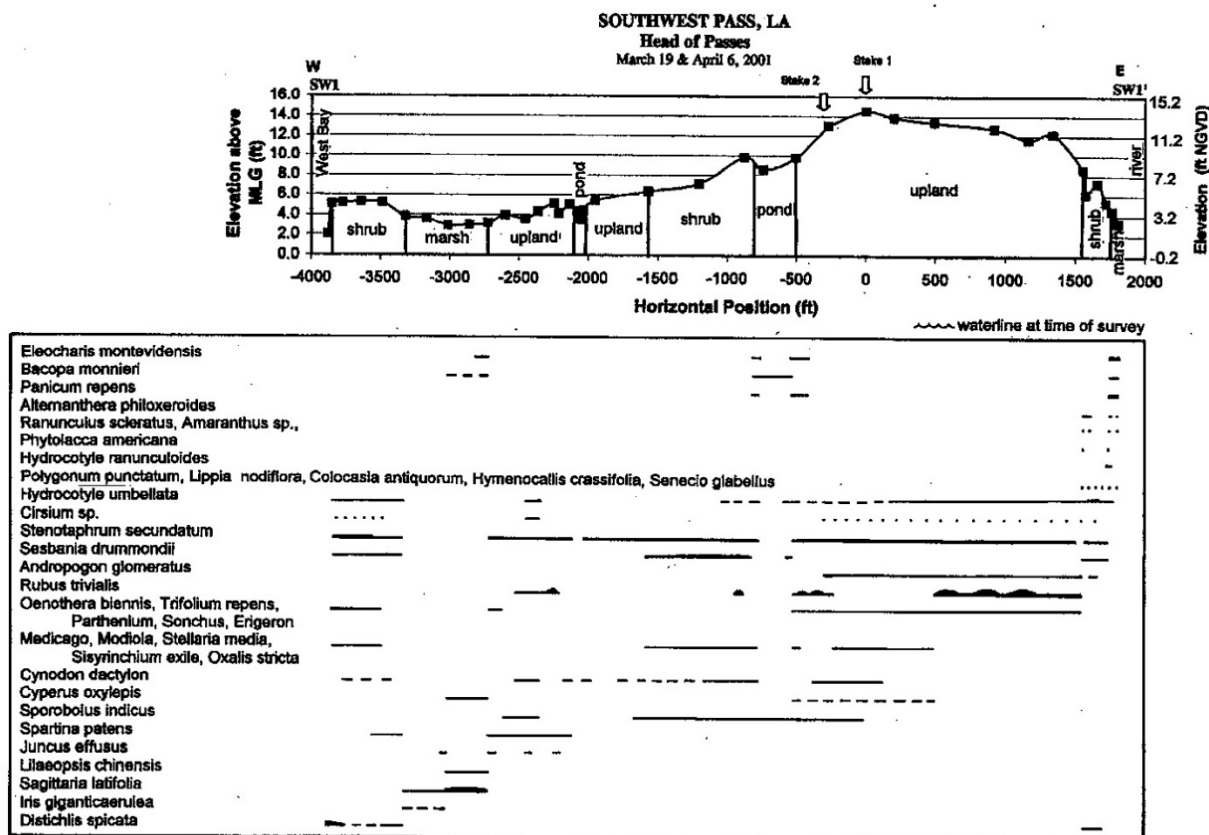
Final contract cost was \$4,846,952.

Notes:

Elevation and vegetation data were acquired in 2001 on the same 4 separate Southwest dredged material placement sites that were surveyed in 1998-1999. A single transect survey line was used for each of these sites.

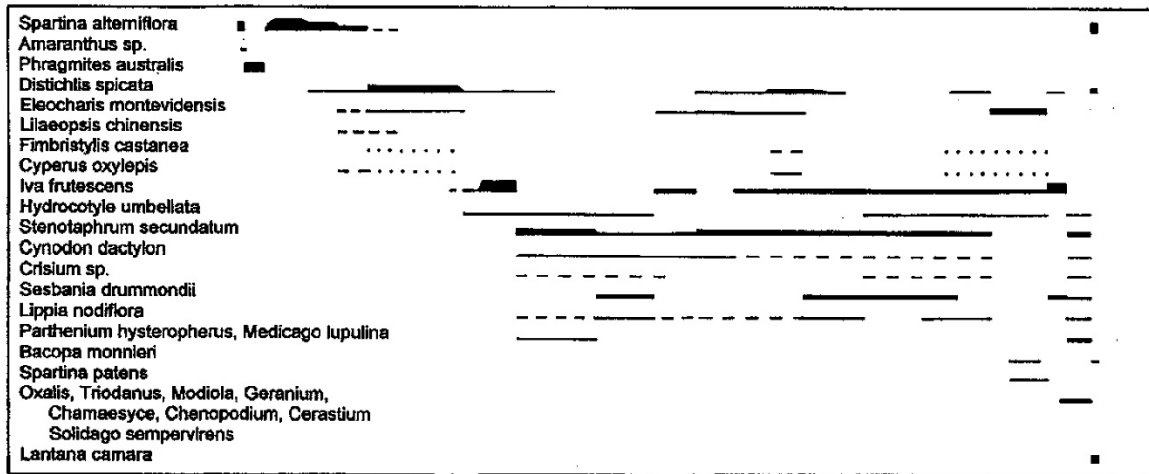
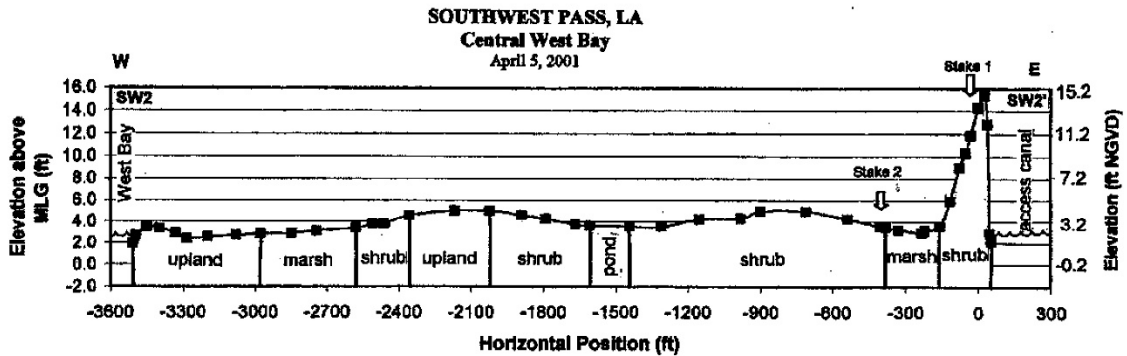
1. Head of Passes (Mile 0.6 BHP) Upland Disposal Area:

Elevation and vegetation data were acquired at this site on 19 March 2001 and 6 April 2001. The landscape of this site remained dominated by upland habitats and included elevated ponds and marshes. Trees observed at this site were large willows and small acacias. This area is still being used for cattle grazing, which encourages the stability and development of extensive grasslands. The higher elevations were occupied by extensive, clumpy blackberry thickets separated by cattle trails and grassland. The average elevation for this site was about +6.6 feet MLG. The highest recorded elevation was +14.5 feet MLG in the eastern portion of this site.



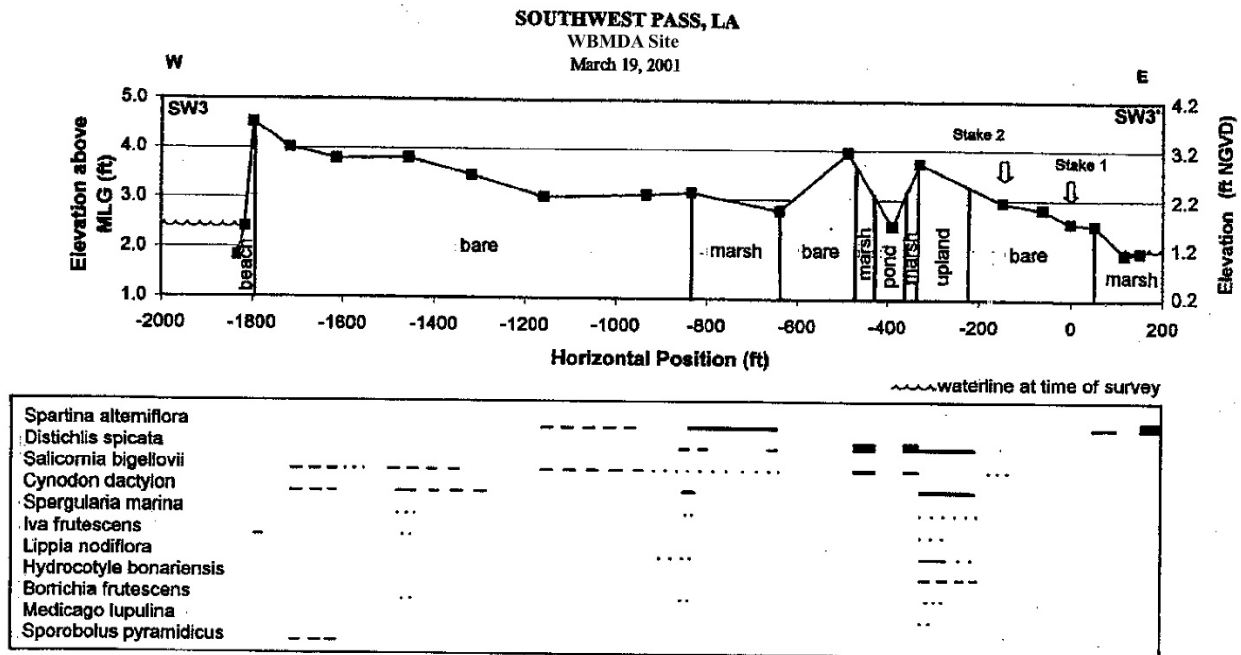
2. Central West Bay (Mile 9.5 BHP) Marsh Creation Site:

Elevation and vegetation data were acquired at this site on 5 April 2001. The landscape of this site remained dominated by upland habitats and included ponds and fresh marshes. The marsh located at the end of the transect into West Bay was salt marsh dominated by *Spartina alterniflora*. The upland habitats were dominated by grasses and low forbes, sometimes with an open canopy of *Sesbania* shrubs. This area is still being used for cattle grazing, which encourages the stability and development of extensive grasslands. Iva shrub thickets developed on lower areas: bordering newer dredged material deposits, ponds and sloughs. The erosional face of the ridge located adjacent to the access canal was colonized by an intermediate marsh at the base and grasses with lantana shrubs up on the slope. The average elevation for this site was about +4.9 feet MLG. The highest recorded elevation was about +15.4 feet MLG at the ridge adjacent to the access canal.



3. WBMDA (Mile 14.5 BHP) Marsh Creation Site:

Elevation and vegetation data were acquired at this site on 19 March 2001. The eastern end of the transect was in a well-established *Spartina alterniflora* saltmarsh. The remainder of the transect crossed bare to sparsely vegetated, low relief mudflats dominated by saltgrass (*Distichlis spicata*) and oyster grass (*Spartina alterniflora*) in the lower areas and Bermuda grass in the higher areas. Glasswort occurred throughout the transect. The area is frequented by cattle which encourages the development of grasslands. The western end of the transect was eroded to form a beach and washover flat which was previously dune and incipient upland habitat. The rest of the transect was slightly more vegetated than what was found in 1998. The average elevation of this site was about +3.0 feet MLG. The highest elevation (+4.5 feet MLG) was found at the berm along the outer shore.



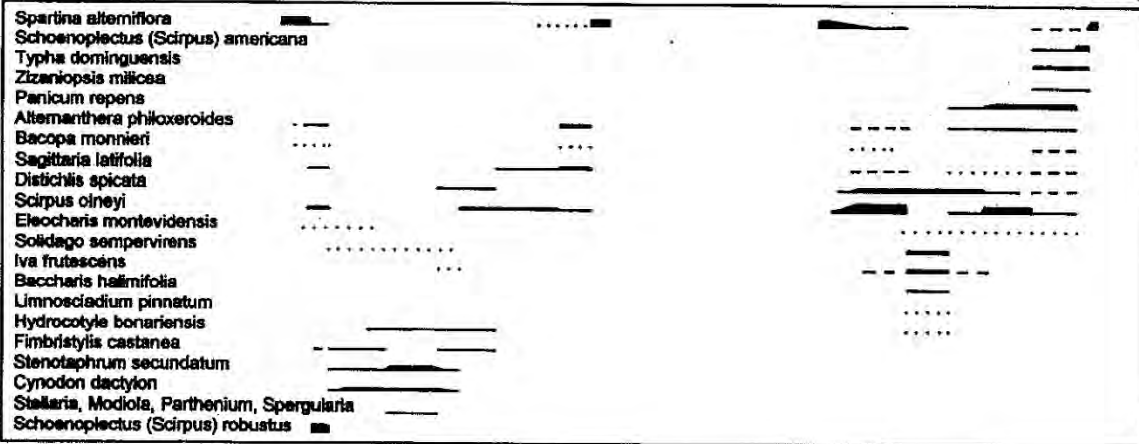
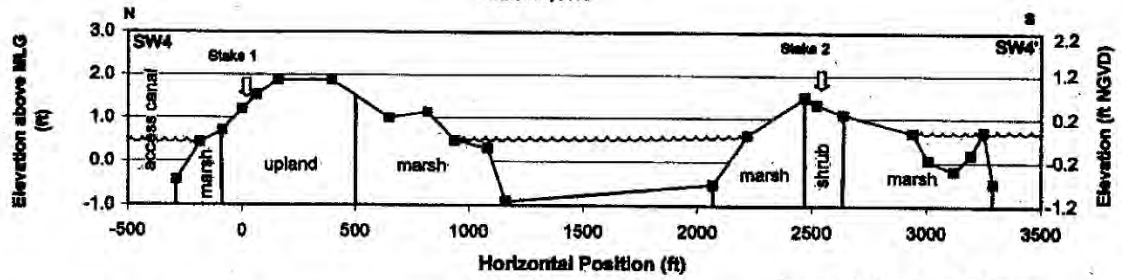
4. EBMDA (Mile 10.0 BHP) Marsh Creation Site:

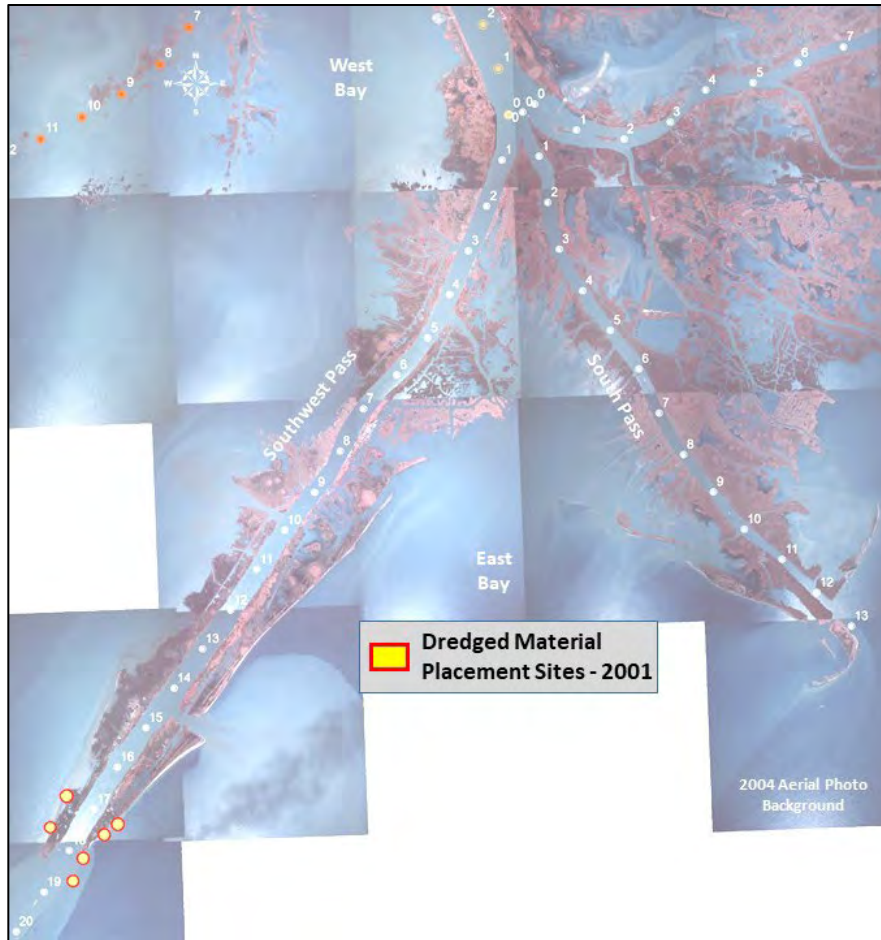
Elevation and vegetation data were acquired at this site on 19 March 2001. The southern land area of lower relief was dominated by tall, thick vegetation of a mixed marsh and shrubs. The land areas remain separated by a wide area of shallow open water. The northern land area supported marsh and upland (grassland) vegetation that was utilized and kept short by grazing cattle. The average elevation at the southern land area was about +0.5 feet MLG, with a recorded high elevation of about +1.5 feet MLG. The average elevation at the northern land area was about +0.8 feet MLG, with a recorded high elevation of about +1.9 feet MLG.

SOUTHWEST PASS, LA

EBMDA Site

March 19, 2001





Southwest Pass BU Sites (2001)

Fiscal Year 2002

Under contract **02-C-0037**, the cutterhead dredge CALIFORNIA (working from 23 April 2002 to 23 May 2002) removed a total of 1,529,431 gross CY from the Southwest Pass Mile 15.0 BHP to Mile 17.0 BHP dredging reach. Dredged material placed in shallow open water areas on the west side of the channel for marsh creation was limited to a maximum placement height of about +4.0 feet Mean Low Gulf (MLG). It was expected that this material would have a final elevation, following dewatering and compaction, of about +3.0 feet MLG. Dredged material placed in shallow open water areas on the east side of the channel for marsh creation was limited to a maximum placement height of about +6.0 feet MLG due to the harsh wave environment characteristic of the East Bay area.

West Side Placement: Marsh Creation

Approximately 527,534 CY were placed unconfined in shallow open water at about **Mile 16.5 BHP** on the west side of the channel for marsh creation. A total of about 21 acres of marsh habitat were created as a result of this placement effort.

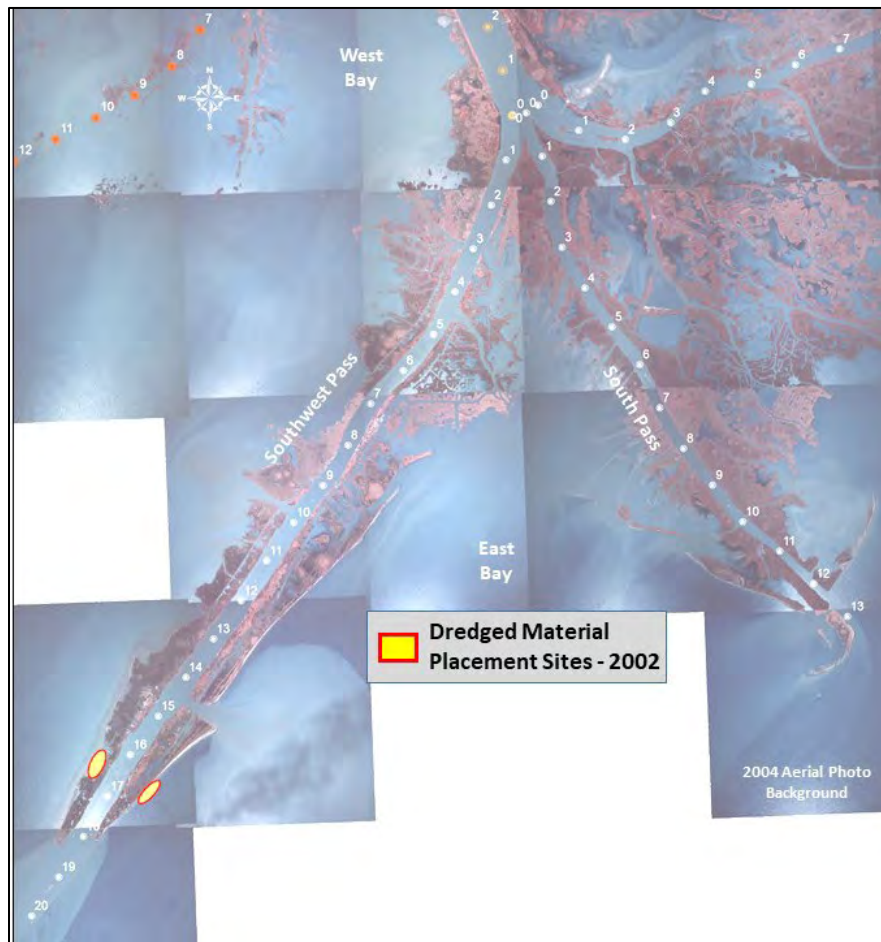
East Side Placement: Marsh Creation

Approximately 1,001,905 CY were placed unconfined in shallow open water at about **Mile 16.5 BHP** on the east side of the channel for marsh creation. A total of about 50 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 527,534 CY of dredged material were placed for marsh creation on the west side of the channel. Approximately 1,001,905 CY were placed for marsh creation on the east side of the channel. A total of 71 acres of marsh habitat were created by this placement effort.

Final contract cost was \$3,394,334.



Southwest Pass BU Sites (2002)

Fiscal Years 2003- 2008

No cutterhead dredging was performed in Southwest Pass during these years.

Fiscal Year 2009

Under contract **09-C-0025**, the cutterhead dredge EW ELLEFSEN (working from 19 March 2009 through 18 May 2009) removed a total of 2,896,991 gross CY from the Southwest Pass Mile 4.6 BHP to Mile 14.0 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.0 feet MLG.

West Side Placement: Marsh Creation

Approximately 947,961 CY were placed unconfined in shallow open water at about **Mile 6.5 BHP** on the west side of the channel for marsh creation. A total of about 37 acres of marsh habitat were created as a result of this placement effort.

Approximately 722,989 CY were placed unconfined in shallow open water at about **Mile 7.9 BHP** on the west side of the channel for marsh creation. A total of about 6 acres of marsh habitat were created as a result of this placement effort.

Approximately 519,352 CY were placed unconfined in shallow open water at about **Mile 10.3 BHP** on the west side of the channel for marsh creation. A total of about 33 acres of marsh habitat were created as a result of this placement effort.

Approximately 706,689 CY were placed unconfined in shallow open water at about **Mile 12.7 BHP** on the west side of the channel for marsh creation. A total of about 24 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 2,896,991 CY of dredged material were placed for marsh creation on the west side of the channel. A total of 100 acres of marsh habitat were created by this placement effort.

Final contract cost was \$10,628,925.



Southwest Pass BU Sites (2009)

Fiscal Year 2010

Under contract **10-C-0028**, the cutterhead dredge RS WEEKS (working from 10 January 2010 through 27 March 2010) removed a total of 3,192,431 gross CY from the Southwest Pass Mile 10.5 BHP to Mile 17.5 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.0 feet MLG.

West Side Placement: Marsh Creation

Approximately 1,365,082 CY were placed unconfined in shallow open water at about **Mile 13.0 BHP** on the west side of the channel for marsh creation. A total of about 14 acres of marsh habitat were created as a result of this placement effort.

Approximately 296,319 CY were placed unconfined in shallow open water at about **Mile 14.3 BHP** on the west side of the channel for marsh creation. A total of about 12 acres of marsh habitat were created as a result of this placement effort.

Approximately 871,670 CY were placed unconfined in shallow open water at about **Mile 15.5 BHP** on the west side of the channel for marsh creation. A total of about 8 acres of marsh habitat were created as a result of this placement effort.

East Side Placement: Marsh Creation

Approximately 659,360 CY were placed unconfined in shallow open water at about **Mile 11.2 BHP** on the east side of the channel for marsh creation. A total of about 33 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 2,533,071 CY of dredged material were placed for marsh creation on the west side of the channel. Approximately 659,360 CY of dredged material were placed for marsh creation on the east side of the channel. A total of 67 acres of marsh habitat were created by this placement effort.

Final contract cost was \$10,228,292.

Notes

Following completion of FY 2010 SWP dredging activities, Earl Armstrong (a local landowner in Southwest Pass) requested that the Corps contractors begin placing dredged material in eroding marsh areas located closer to the Southwest Pass channel instead of discharging dredged material in the open Gulf of Mexico waters just beyond existing land where the material had no protection from wave action. Mr. Armstrong noted that the recently placed material was quickly eroding away due to its exposed location. Eroding marsh areas would provide discharged dredged material sufficient protection from wave erosion to allow the development of marsh habitat rather than just having the dredged material erode away within a year or two. Disposal plans for future Southwest Pass cutterhead dredging was modified to incorporate this suggestion.



Southwest Pass BU Sites (2010)

Fiscal Year 2011

Under contract **11-C-0024**, the cutterhead dredge DREDGE 32 (working from 23 February 2011 through 15 July 2011) removed a total of 3,586,342 gross CY from the Southwest Pass Mile 2.4 BHP to Mile 17.6 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 234,995 CY were placed unconfined in shallow open water at about **Mile 2.0 BHP** on the west side of the channel for marsh creation. Dredged material was pumped to a maximum elevation of about +3.5 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 35% sand and 65% silt. A total of about 10 acres of marsh habitat were created as a result of this placement effort.

Bankline Stabilization

Approximately 1,135,755 CY were placed unconfined behind foreshore rock dikes at **Mile 3.4 BHP** on the west side of the channel for bank stabilization. Dredged material was pumped to a

maximum elevation of about +4.75 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 50% sand and 50% silt. A total of about 15 acres of marsh habitat were created by this placement effort.

Approximately 239,302 CY were placed unconfined behind foreshore rock dikes at **Mile 5.3 BHP** on the west side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +5.5 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 65% sand and 35% silt. A total of about 93 acres of marsh habitat were created by this placement effort.

Approximately 88,106 CY were placed unconfined behind foreshore rock dikes at **Mile 6.2 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +4.5 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 65% sand and 35% silt. A total of about 1 acre of marsh habitat were created by this placement effort.

Approximately 199,173 CY were placed unconfined behind foreshore rock dikes at **Mile 6.5 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +5.7 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 65% sand and 35% silt. A total of about 4 acres of marsh habitat was created by this placement effort.

Approximately 212,774 CY were placed unconfined behind foreshore rock dikes at **Mile 8.2 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +3.6 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 65% sand and 35% silt. A total of about 4 acres of marsh habitat was created by this placement effort.

Approximately 172,161 CY were placed unconfined behind foreshore rock dikes at **Mile 9.9 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +4.4 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 65% sand and 35% silt. A total of about 9 acres of marsh habitat was created by this placement effort.

Approximately 350,988 CY were placed unconfined behind foreshore rock dikes at **Mile 11.2 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +5.1 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 65% sand and 35% silt. A total of about 13 acres of marsh habitat was created by this placement effort.

Approximately 86,609 CY were placed unconfined behind foreshore rock dikes at **Mile 11.8 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +2.8 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 65% sand and 35% silt. A total of about 20 acres of marsh habitat was created by this placement effort.

Approximately 219,937 CY were placed unconfined behind foreshore rock dikes at **Mile 14.2 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +5.2 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 35% sand and 65% silt. A total of about 7 acres of marsh habitat was created by this placement effort.

Approximately 155,954 CY were placed unconfined behind foreshore rock dikes at **Mile 14.6 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +5.6 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 35% sand and 65% silt. A total of about 5 acres of marsh habitat was created by this placement effort.

Approximately 353,342 CY were placed unconfined behind foreshore rock dikes at **Mile 16.5 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +5.5 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 35% sand and 65% silt. A total of about 18 acres of marsh habitat was created by this placement effort.

Approximately 137,246 CY were placed unconfined behind foreshore rock dikes at **Mile 17.6 BHP** on the east side of the channel for bank stabilization. Dredged material was pumped to a maximum elevation of about +3.2 feet MLG. The contractor estimated that the dredged material placed at this site consisted of about 35% sand and 65% silt. A total of about 1 acre of marsh habitat was created by this placement effort.

Results

For this contract work, approximately 234,995 CY of dredged material were placed for marsh creation on the west side of the channel. Approximately 1,375,057 CY of dredged material were placed for bankline stabilization on the west side of the channel. Approximately 1,976,290 CY of dredged material were placed for bankline stabilization on the east side of the channel. A total of 200 acres of marsh habitat were created by this placement effort.

Final contract cost was \$9,306,421.



Southwest Pass BU Sites (2011)

Fiscal Year 2012

1. Under contract **12-C-0014**, the cutterhead dredge MARION (working from 10 March 2012 through 19 April 2012) removed a total of 594,550 gross CY from the Southwest Pass Mile 10.0 BHP to Mile 11.5 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

East Side Placement: Marsh Creation

Approximately 201,000 CY were placed unconfined in shallow open water at about **Mile 10.3 BHP** on the east side of the channel for marsh creation. No marsh habitat was created by this placement effort.

Approximately 393,550 CY were placed unconfined in shallow open water at about **Mile 11.0 BHP** on the east side of the channel for marsh creation. A total of about 70 acres of marsh habitat were created by this placement effort.

Results

For this contract work, approximately 594,550 CY of dredged material were placed for marsh creation on the west side of the channel. No acres of marsh habitat were created by this placement effort.

Final contract cost was \$1,987,035.

2. Under contract **12-C-0021**, the cutterhead dredge CALIFORNIA (working from 20 April 2012 through 9 July 2012) removed a total of 5,066,405 gross CY from the Southwest Pass Mile 5.0 Above Head of Passes (AHP) to Mile 18.0 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 2,102,447 CY were placed unconfined in shallow open water at about **Mile 14.3 BHP** on the west side of the channel for marsh creation. A total of about 273 acres of marsh habitat were created as a result of this placement effort.

Approximately 874,379 CY were placed unconfined in shallow open water at about **Mile 17.3 BHP** on the west side of the channel for marsh creation. A total of about 114 acres of marsh habitat were created as a result of this placement effort.

Approximately 917,530 CY were placed unconfined in shallow open water at about **Mile 10.5 BHP** and **Mile 10.7 BHP** on the west side of the channel for marsh creation. A total of about 65 acres of marsh habitat were created as a result of this placement effort.

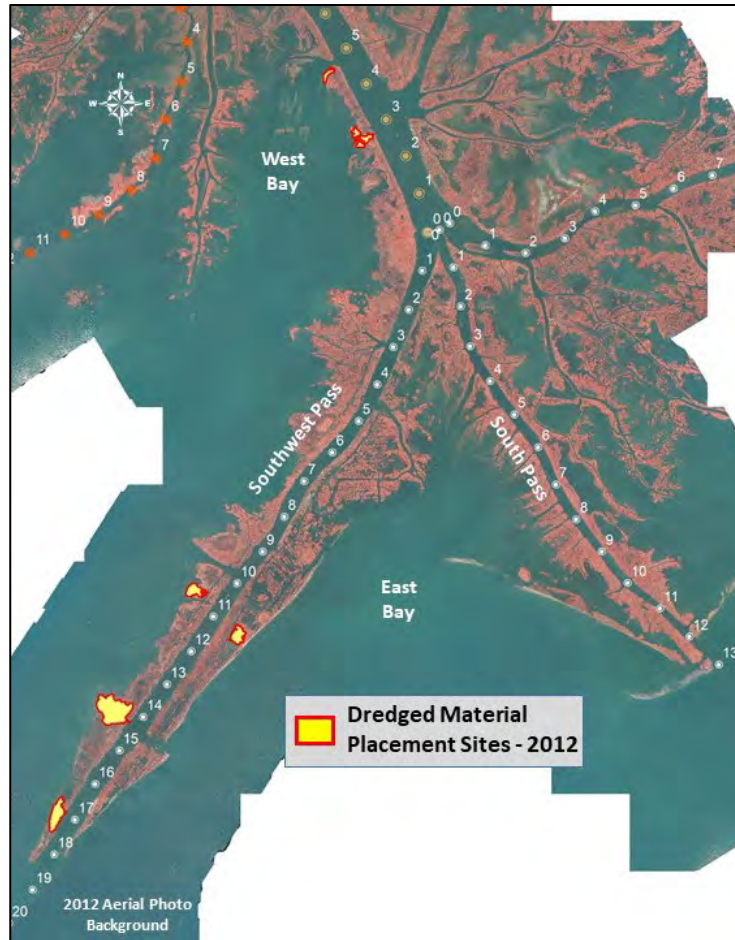
Approximately 593,541 CY were placed unconfined in shallow open water at about **Mile 4.7 AHP** in West Bay for marsh creation. A total of about 26 acres of marsh habitat were created as a result of this placement effort.

Approximately 578,508 CY were placed unconfined in shallow open water at about **Mile 2.9 AHP** in West Bay for marsh creation. A total of about 67 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 5,066,405 CY of dredged material were placed for marsh creation on the west side of the channel. A total of 615 acres of marsh habitat were created by this placement effort.

Final contract cost was \$13,676,125.



Southwest Pass BU Sites (2012)

Fiscal Year 2013

Under contract **13-C-0021**, the cutterhead dredge CAPTAIN FRANK (working from 21 May 2013 through 8 August 2013) removed a total of 5,656,851 gross CY from the Southwest Pass Mile 8.7 BHP to Mile 18.0 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 486,990 CY were placed unconfined in shallow open water at about **Mile 8.0 BHP** on the west side of the channel for marsh creation. A total of about 16 acres of marsh habitat were created as a result of this placement effort.

Approximately 851,285 CY were placed unconfined in shallow open water at about **Mile 10.8 BHP** on the west side of the channel for marsh creation. A total of about 163 acres of marsh habitat were created as a result of this placement effort.

Approximately 2,545,206 CY were placed unconfined in shallow open water behind foreshore rocks from about **Mile 12.0 BHP** to **Mile 13.1 BHP** on the west side of the channel for marsh

creation. A total of about 186 acres of marsh habitat were created as a result of this placement effort: 79 acres at about **Mile 12.0 BHP**, and 107 acres at about **Mile 13.1 BHP**.

Approximately 571,203 CY were placed unconfined in shallow open water at about **Mile 14.1 BHP** on the west side of the channel for marsh creation. A total of about 380 acres of marsh habitat were created as a result of this placement effort.

Approximately 333,278 CY were placed unconfined in shallow open water at about **Mile 16.6 BHP** on the west side of the channel for marsh creation. A total of about 20 acres of marsh habitat were created as a result of this placement effort.

Approximately 408,778 CY were placed unconfined in shallow open water at about **Mile 17.1 BHP** on the west side of the channel for marsh creation. A total of about 4 acres of marsh habitat were created as a result of this placement effort.

Bankline Stabilization

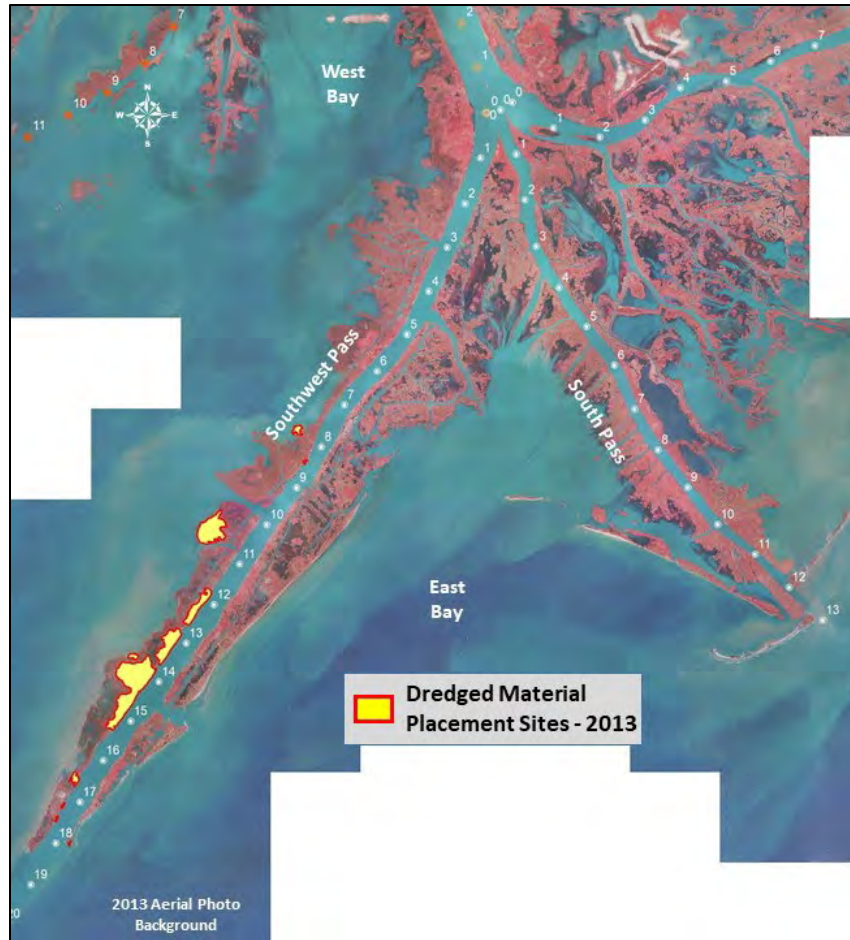
Approximately 294,015 CY were placed unconfined behind foreshore rock dikes at **Mile 8.3 BHP** on the west side of the channel for bank stabilization. A total of about 2 acres of marsh habitat was created by this placement effort.

Approximately 166,096 CY were placed unconfined behind foreshore rock dikes at **Mile 17.5 BHP** on the east side of the channel for bank stabilization. A total of about 2 acres of marsh habitat was created by this placement effort.

Results

For this contract work, approximately 5,196,740 CY of dredged material were placed for marsh creation on the west side of the channel. Approximately 294,015 CY of dredged material were placed for bank stabilization on the west side of the channel, and approximately 166,096 CY of dredged material on the east side of the channel for bank stabilization. A total of 773 acres of marsh habitat were created by this placement effort.

Final contract cost was \$11,170,200.



Southwest Pass BU Sites (2013)

Fiscal Year 2014

1. Under contract **14-C-0023**, the cutterhead dredges GD MORGAN and CAPTAIN FRANK (working from 2 March 2014 through 12 July 2014) removed a total of 5,011,355 gross CY from the Southwest Pass Mile 4.9 BHP to Mile 17.4 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 1,089,746 CY were placed unconfined in shallow open water at about **Mile 5.3 BHP** on the west side of the channel for marsh creation. A total of about 69 acres of marsh habitat were created as a result of this placement effort.

Approximately 377,158 CY were placed unconfined in shallow open water at about **Mile 10.2 BHP** on the west side of the channel for marsh creation. A total of about 61 acres of marsh habitat were created as a result of this placement effort.

East Side Placement: Marsh Creation

Approximately 1,043,590 CY were placed unconfined in shallow open water at about **Mile 8.2 BHP** on the east side of the channel for marsh creation. A total of about 116 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,425,265 CY were placed unconfined behind foreshore rock dikes at **Mile 11.1 BHP** on the east side of the channel for marsh creation and bank stabilization. A total of about 129 acres of marsh habitat was created by this placement effort.

Approximately 1,075,596 CY were placed unconfined in shallow open water at about **Mile 17.8 BHP** on the east side of the channel for marsh creation. A total of about 21 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 1,466,904 CY of dredged material were placed for marsh creation on the west side of the channel. Approximately 3,544,451 CY of dredged material were placed for marsh creation on the east side of the channel. A total of 396 acres of marsh habitat were created by this placement effort.

Final contract cost was \$13,539,100.

2. Under contract **14-C-0028**, the cutterhead dredge CALIFORNIA (working from 20 May 2014 through 7 July 2014) removed a total of 2,966,585 gross CY from the Southwest Pass Mile 11.9 BHP to Mile 15.9 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

East Side Placement: Marsh Creation

Approximately 862,430 CY were placed unconfined in shallow open water at about **Mile 12.6 BHP** on the east side of the channel for marsh creation. A total of about 68 acres of marsh habitat were created as a result of this placement effort.

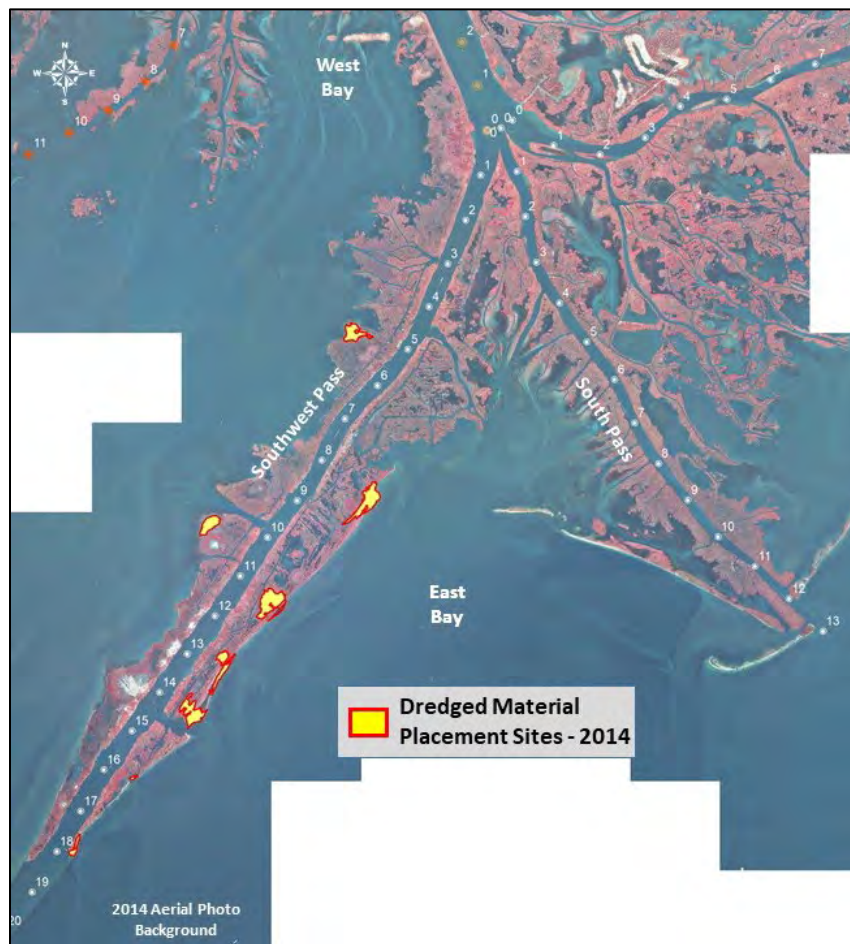
Approximately 1,794,766 CY were placed unconfined in shallow open water at about **Mile 14.0 BHP** on the east side of the channel for marsh creation. A total of about 103 acres of marsh habitat were created as a result of this placement effort.

Approximately 309,389 CY were placed unconfined in shallow open water at about **Mile 15.7 BHP** on the east side of the channel for marsh creation. A total of about 5 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 2,966,585 CY of dredged material were placed for marsh creation on the east side of the channel. A total of 176 acres of marsh habitat were created by this placement effort.

Final contract cost was \$7,438,096.



Southwest Pass BU Sites (2014)

Fiscal Year 2015

1. Under contract **15-C-0005**, the cutterhead dredges GD MORGAN and CAPTAIN FRANK (working from 8 January 2015 through 30 March 2015) removed a total of 5,005,375 gross CY from the Southwest Pass Mile 1.0 AHP to Mile 10.8 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 74,308 CY were placed unconfined in shallow open water at about **Mile 1.5 AHP** on the west side of the channel in West Bay for marsh creation. A total of about 5 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,169,938 CY were placed unconfined in shallow open water at about **Mile 1.5 BHP** on the west side of the channel for marsh creation. A total of about 7 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,068,770 CY were placed unconfined in shallow open water at about **Mile 3.8 BHP** on the west side of the channel for marsh creation. A total of about 31 acres of marsh habitat were created as a result of this placement effort.

Approximately 2,230,233 CY were placed unconfined in shallow open water at about **Mile 7.2 BHP** on the west side of the channel for marsh creation. A total of about 9 acres of marsh habitat were created as a result of this placement effort.

Approximately 462,126 CY were placed unconfined in shallow open water at about **Mile 8.1 BHP** on the west side of the channel for marsh creation. No marsh habitat was created as a result of this placement effort.

Results

For this contract work, approximately 5,005,375 CY of dredged material were placed for marsh creation on the west side of the channel. A total of 52 acres of marsh habitat were created by this placement effort.

Final contract cost was \$14,502,400.

2. Under contract **15-C-0012**, the cutterhead dredge ALASKA (working from 12 April 2015 through 9 August 2015) removed a total of 6,257,897 gross CY from the Southwest Pass Mile 4.7 AHP to Mile 17.7 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 1,319,154 CY were placed unconfined in shallow open water at about **Mile 4.0 AHP** on the west side of the channel in West Bay for marsh creation. A total of 100 acres of marsh habitat was created as a result of this placement effort.

Approximately 519,242 CY were placed unconfined in shallow open water at about **Mile 2.9 AHP** on the west side of the channel in West Bay for marsh creation. A total of 45 acres of marsh habitat was created as a result of this placement effort.

Approximately 737,154 CY were placed unconfined in shallow open water at about **Mile 1.5 BHP** on the west side of the channel for marsh creation. A total of 66 acres of marsh habitat was created as a result of this placement effort.

Approximately 1,391,114 CY were placed unconfined in shallow open water at about **Mile 12.7 BHP** on the west side of the channel for marsh creation. A total of 35 acres of marsh habitat was created as a result of this placement effort.

Approximately 1,886,954 CY were placed unconfined in shallow open water at about **Mile 17.3 BHP** on the west side of the channel for marsh creation. A total of 49 acres of marsh habitat was created as a result of this placement effort.

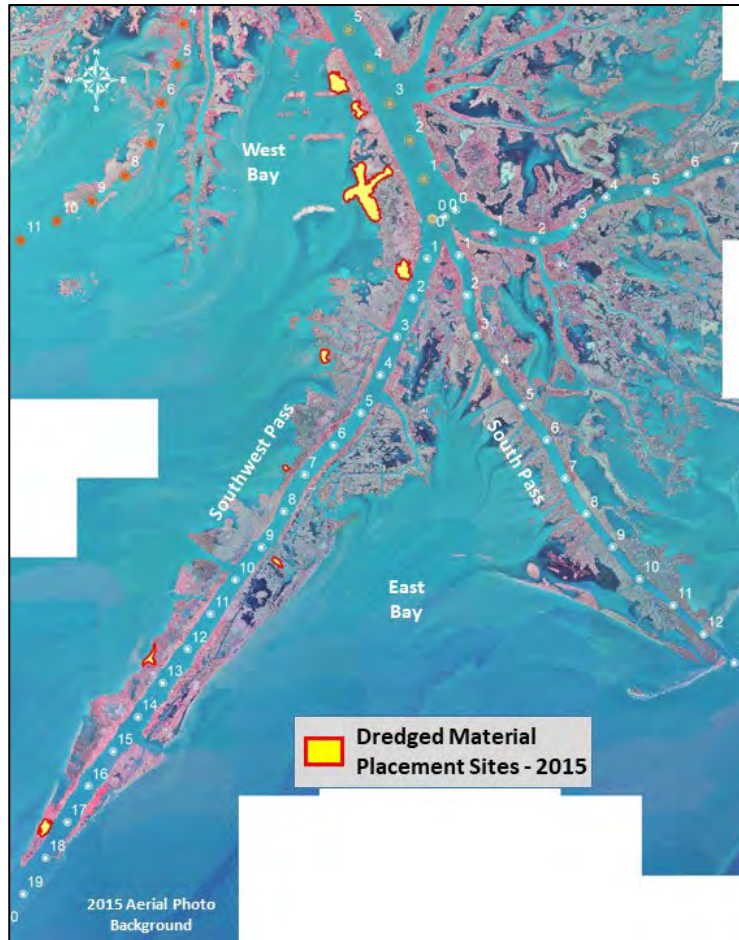
East Side Placement: Marsh Creation

Approximately 404,279 CY were placed unconfined in shallow open water at about **Mile 9.0 BHP** on the east side of the channel for marsh creation. A total of 17 acres of marsh habitat was created as a result of this placement effort.

Results

For this contract work, approximately 5,853,618 CY of dredged material were placed for marsh creation on the west side of the channel. Approximately 404,279 CY of dredged material were placed for marsh creation on the east side of the channel. A total of 312 acres of marsh habitat were created by this placement effort.

Final contract cost was \$15,347,220.



Southwest Pass BU Sites (2015)

Fiscal Year 2016

1. Under contract **16-C-0016**, the cutterhead dredge GD MORGAN (working from 18 February 2016 through 6 June 2016) removed a total of 5,890,176 gross CY from the Southwest Pass Mile 3.5 AHP to Mile 17.6 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 495,044 CY were placed unconfined in shallow open water at about **Mile 1.5 AHP** on the west side of the channel in West Bay for marsh creation. A total of about 129 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,909,882 CY were placed unconfined in shallow open water at about **Mile 2.4 AHP** on the west side of the channel in West Bay for marsh creation. A total of about 230 acres of marsh habitat were created as a result of this placement effort.

East Side Placement: Marsh Creation

Approximately 1,119,306 CY were placed unconfined in shallow open water at about **Mile 10.7 BHP** on the east side of the channel for marsh creation. A total of about 58 acres of marsh habitat were created as a result of this placement effort.

Approximately 884,446 CY were placed unconfined in shallow open water at about **Mile 14.0 BHP** on the east side of the channel for marsh creation. A total of about 24 acres of marsh habitat were created as a result of this placement effort.

Approximately 906,600 CY were placed unconfined in shallow open water at about **Mile 16.8 BHP** on the east side of the channel for marsh creation. A total of about 16 acres of marsh habitat were created as a result of this placement effort.

Approximately 574,898 CY were placed unconfined in shallow open water at about **Mile 17.9 BHP** on the east side of the channel for marsh creation. A total of about 10 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 2,404,926 CY of dredged material were placed for marsh creation on the west side of the channel. Approximately 3,485,250 CY of dredged material were placed for marsh creation on the east side of the channel. A total of 467 acres of marsh habitat were created by this placement effort.

Final contract cost was \$14,984,410.

2. Under contract **16-C-0019**, the cutterhead dredges EW ELLEFSEN and CAPTAIN FRANK (working from 28 February 2016 through 20 May 2016) removed a total of 2,610,033 gross CY from the Southwest Pass Mile 1.1 AHP to Mile 6.4 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 110,698 CY were placed unconfined in shallow open water at about **Mile 1.6 AHP** on the west side of the channel in West Bay for marsh creation. No acres of marsh habitat were created as a result of this placement effort.

Approximately 869,159 CY were placed unconfined in shallow open water at about **Mile 1.4 AHP** on the west side of the channel in West Bay for marsh creation. A total of about 149 acres of marsh habitat were created as a result of this placement effort.

Approximately 568,479 CY were placed unconfined in shallow open water at about **Mile 1.2 BHP** on the west side of the channel in West Bay for marsh creation. A total of about 122 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,061,697 CY were placed unconfined in shallow open water at about **Mile 6.8 BHP** on the west side of the channel for marsh creation. A total of about 48 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 2,610,033 CY of dredged material were placed for marsh creation on the west side of the channel. A total of 319 acres of marsh habitat were created by this placement effort.

Final contract cost was \$9,035,025.



Southwest Pass BU Sites (2016)

Fiscal Year 2017

Under contract **17-C-0013**, the cutterhead dredge CAPTAIN FRANK (working from 22 March 2017 through 6 September 2017) removed a total of 12,233,573 gross CY from the Southwest Pass Mile 1.0 AHP to Mile 18.0 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 1,439,729 CY were placed unconfined in shallow open water at about **Mile 0.5 AHP** on the west side of the channel in West Bay for marsh creation. A total of about 258 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,856,401 CY were placed unconfined in shallow open water at about **Mile 10.5 BHP** on the west side of the channel for marsh creation. A total of about 170 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,550,700 CY were placed unconfined in shallow open water at about **Mile 13.8 BHP** on the west side of the channel for marsh creation. A total of about 222 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,349,822 CY were placed unconfined in shallow open water at about **Mile 15.0 BHP** on the west side of the channel for marsh creation. A total of about 306 acres of marsh habitat were created as a result of this placement effort.

East Side Placement: Marsh Creation

Approximately 1,986,005 CY were placed unconfined in shallow open water at about **Mile 8.2 BHP** on the east side of the channel for marsh creation. A total of about 63 acres of marsh habitat were created as a result of this placement effort.

Approximately 645,792 CY were placed unconfined in shallow open water at about **Mile 11.0 BHP** on the east side of the channel for marsh creation. A total of about 11 acres of marsh habitat were created as a result of this placement effort.

Approximately 849,665 CY were placed unconfined in shallow open water at about **Mile 14.3 BHP** on the east side of the channel for marsh creation. A total of about 16 acres of marsh habitat were created as a result of this placement effort.

Approximately 883,957 CY were placed unconfined in shallow open water at about **Mile 16.8 BHP** on the east side of the channel for marsh creation. A total of about 1 acre of marsh habitat was created as a result of this placement effort.

Approximately 737,431 CY were placed unconfined in shallow open water at about **Mile 17.5 BHP** on the east side of the channel for marsh creation. A total of about 6 acres of marsh habitat were created as a result of this placement effort.

Approximately 934,071 CY were placed unconfined in shallow open water at about **Mile 17.8 BHP** on the east side of the channel for marsh creation. A total of about 11 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 6,196,652 CY of dredged material were placed for marsh creation on the west side of the channel. Approximately 6,036,921 CY of dredged material were placed for marsh creation on the east side of the channel. A total of 1,064 acres of marsh habitat were created by this placement effort.

Final contract cost was \$25,507,950.



Southwest Pass BU Sites (2017)

Fiscal Year 2018

1. Under contract **18-C-0014**, the cutterhead dredge ROBERT M WHITE (working from 18 March 2018 through 9 June 2018) removed a total of 2,853,602 gross CY from the Southwest Pass Mile 3.5 AHP to Mile 18.1 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 1,369,154 CY were placed unconfined in shallow open water at about **Mile 3.5 AHP** on the west side of the channel in West Bay for marsh creation. A total of about 81 acres of marsh habitat were created as a result of this placement effort.

Approximately 172,882 CY were placed unconfined in shallow open water at about **Mile 7.2 BHP** on the west side of the channel for marsh creation. A total of about 4 acres of marsh habitat were created as a result of this placement effort.

Approximately 392,631 CY were placed unconfined in shallow open water at about **Mile 7.5 BHP** on the west side of the channel for marsh creation. A total of about 8 acres of marsh habitat were created as a result of this placement effort.

East Side Placement: Marsh Creation

Approximately 679,010 CY were placed unconfined in shallow open water at about **Mile 17.5 BHP** on the east side of the channel for marsh creation, and approximately 239,925 CY were placed unconfined in shallow open water at about **Mile 17.8 BHP** on the east side of the channel for marsh creation. A total of about 24 acres of marsh habitat were created as a result of these placement efforts.

Results

For this contract work, approximately 1,934,667 CY of dredged material was placed for marsh creation on the west side of the channel. Approximately 918,935 CY of dredged material was placed for marsh creation on the east side of the channel. A total of 117 acres of marsh habitat were created by this placement effort.

Final contract cost was \$10,082,552.

2. Under contract **18-C-0023**, the cutterhead dredge GD MORGAN (working from 17 April 2018 through 29 June 2018) removed a total of 3,828,432 gross CY from the Southwest Pass Mile 2.5 AHP to Mile 7.1 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet MLG.

West Side Placement: Marsh Creation

Approximately 967,293 CY were placed unconfined in shallow open water at about **Mile 1.6 AHP** on the west side of the channel in West Bay for marsh creation. A total of about 91 acres of marsh habitat were created as a result of this placement effort.

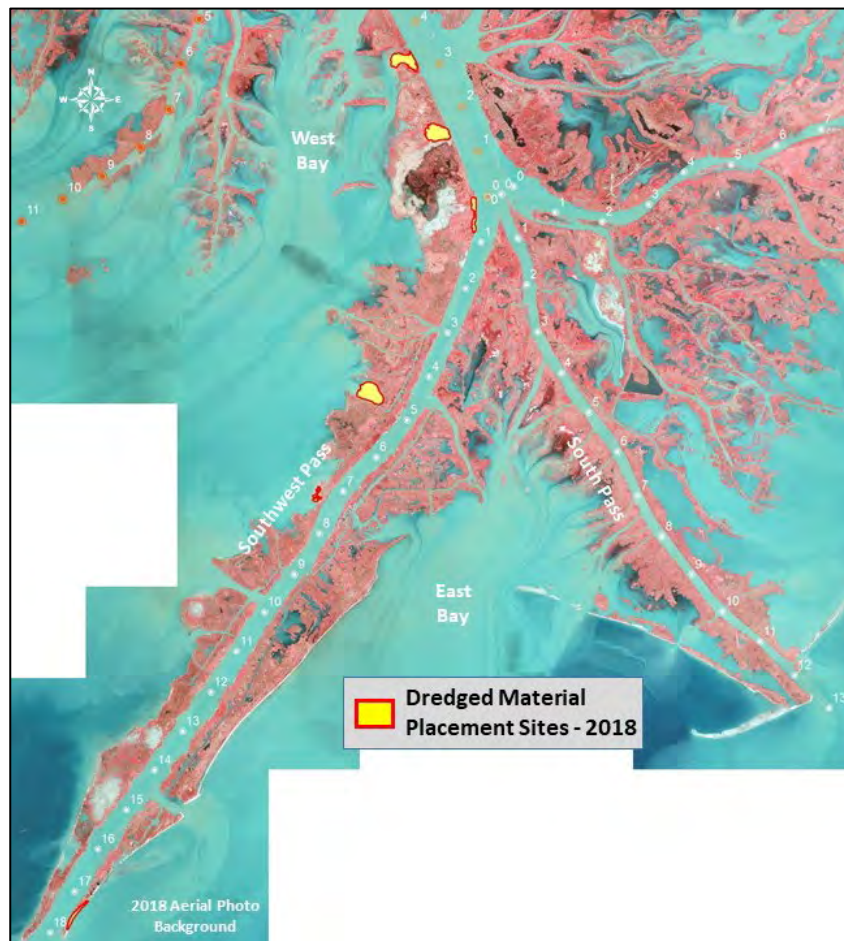
Approximately 1,534,384 CY were placed unconfined in shallow open water at about **Mile 0.0** on the west side of the channel in West Bay for marsh creation. A total of about 33 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,326,755 CY were placed unconfined in shallow open water at about **Mile 5.0 BHP** on the west side of the channel in West Bay for marsh creation. A total of about 106 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 3,828,432 CY of dredged material were placed for marsh creation on the west side of the channel. A total of 230 acres of marsh habitat were created by this placement effort.

Final contract cost was \$12,435,450.



Southwest Pass BU Sites (2018)

Fiscal Year 2019

1. Under contract **19-C-0010**, the cutterhead dredges RS WEEKS and CAPTAIN FRANK (working from 15 December 2018 through 23 May 2019) removed a total of 9,614,193 gross CY from the Southwest Pass Mile 1.5 AHP to Mile 17.8 BHP dredging reach. All dredged material was placed unconfined in shallow open water behind foreshore rocks for bank stabilization.

Bankline Stabilization

Approximately 1,882,900 CY were placed unconfined in shallow open water behind foreshore rocks from about **Mile 1.5 AHP** to **Mile 2.0 BHP** for bank stabilization on the west side of the channel. A total of about 328 acres of marsh habitat were created as a result of this placement effort

Approximately 1,242,098 CY were placed unconfined in shallow open water behind foreshore rocks from about **Mile 5.0 BHP** to **Mile 6.7 BHP** for bank stabilization on the west side of the channel. A total of about 56 acres of marsh habitat were created as a result of this placement effort.

Approximately 486,135 CY were placed unconfined in shallow open water behind foreshore rocks at about **Mile 5.3 BHP** for bank stabilization on the west side of the channel. A total of about 3 acres of marsh habitat were created as a result of this placement effort.

Approximately 512,403 CY were placed unconfined in shallow open water behind foreshore rocks at about **Mile 9.5 BHP** for bank stabilization on the west side of the channel. A total of about 29 acres of marsh habitat were created as a result of this placement effort.

Approximately 2,195,947 CY were placed unconfined in shallow open water behind foreshore rocks from about **Mile 10.0 BHP** to **Mile 13.6 BHP** for bank stabilization on the east side of the channel. A total of about 63 acres of marsh habitat were created as a result of this placement effort.

Approximately 517,109 CY were placed unconfined in shallow open water behind foreshore rocks from about **Mile 13.5 BHP** to **Mile 14.4 BHP** for bank stabilization on the east side of the channel. A total of about 37 acres of marsh habitat were created as a result of this placement effort.

Approximately 330,072 CY were placed unconfined in shallow open water behind foreshore rocks from about **Mile 14.5 BHP** to **Mile 14.9 BHP** for bank stabilization on the east side of the channel. A total of about 32 acres of marsh habitat were created as a result of this placement effort.

Approximately 2,101,879 CY were placed unconfined in shallow open water behind foreshore rocks at about **Mile 17.5 BHP** for bank stabilization on the east side of the channel. A total of about 172 acres of marsh habitat were created as a result of this placement effort.

Results

For this contract work, approximately 4,123,536 CY of dredged material were placed on the west side of the channel for bank stabilization, and 5,145,007 CY were placed on the east side of the channel for bank stabilization. A total of 720 acres of marsh habitat were created by this placement effort.

Final contract cost was \$27,637,500.

2. Under contract **19-C-0056**, the cutterhead dredges CR McCASKILL and CAPTAIN FRANK (working from 23 July 2019 through 26 August 2019) removed a total of 5,117,947 gross CY from the Southwest Pass Mile 2.5 BHP to Mile 17.7 BHP dredging reach. Dredged material placed in shallow open water areas for marsh creation was limited to a maximum placement height of about +4.5 feet NAVD88.

West Side Placement: Marsh Creation

Approximately 977,980 CY were placed unconfined in shallow open water at about **Mile 5.3 BHP** on the west side of the channel for marsh creation. A total of about 55 acres of marsh habitat were created as a result of this placement effort.

Bankline Stabilization

Approximately 436,790 CY were placed unconfined in shallow open water behind foreshore rocks at about **Mile 2.6 BHP** for bank stabilization on the west side of the channel. A total of about 67 acres of marsh habitat were created as a result of this placement effort.

Approximately 55,985 CY were placed unconfined in shallow open water behind foreshore rocks at about **Mile 6.7 BHP** for bank stabilization on the west side of the channel. A total of about 12 acres of marsh habitat were created as a result of this placement effort.

Approximately 411,797 CY were placed unconfined in shallow open water behind foreshore rocks at about **Mile 14.4 BHP** for bank stabilization on the east side of the channel. No measureable marsh habitat was created as a result of this placement effort.

Approximately 506,888 CY were placed unconfined in shallow open water behind foreshore rocks at about **Mile 14.9 BHP** for bank stabilization on the west side of the channel. A total of about 159 acres of marsh habitat were created as a result of this placement effort.

Approximately 1,084,926 CY were placed unconfined in shallow open water behind foreshore rocks at about **Mile 15.8 BHP** for bank stabilization on the east side of the channel. A total of about 57 acres of marsh habitat were created as a result of this placement effort.

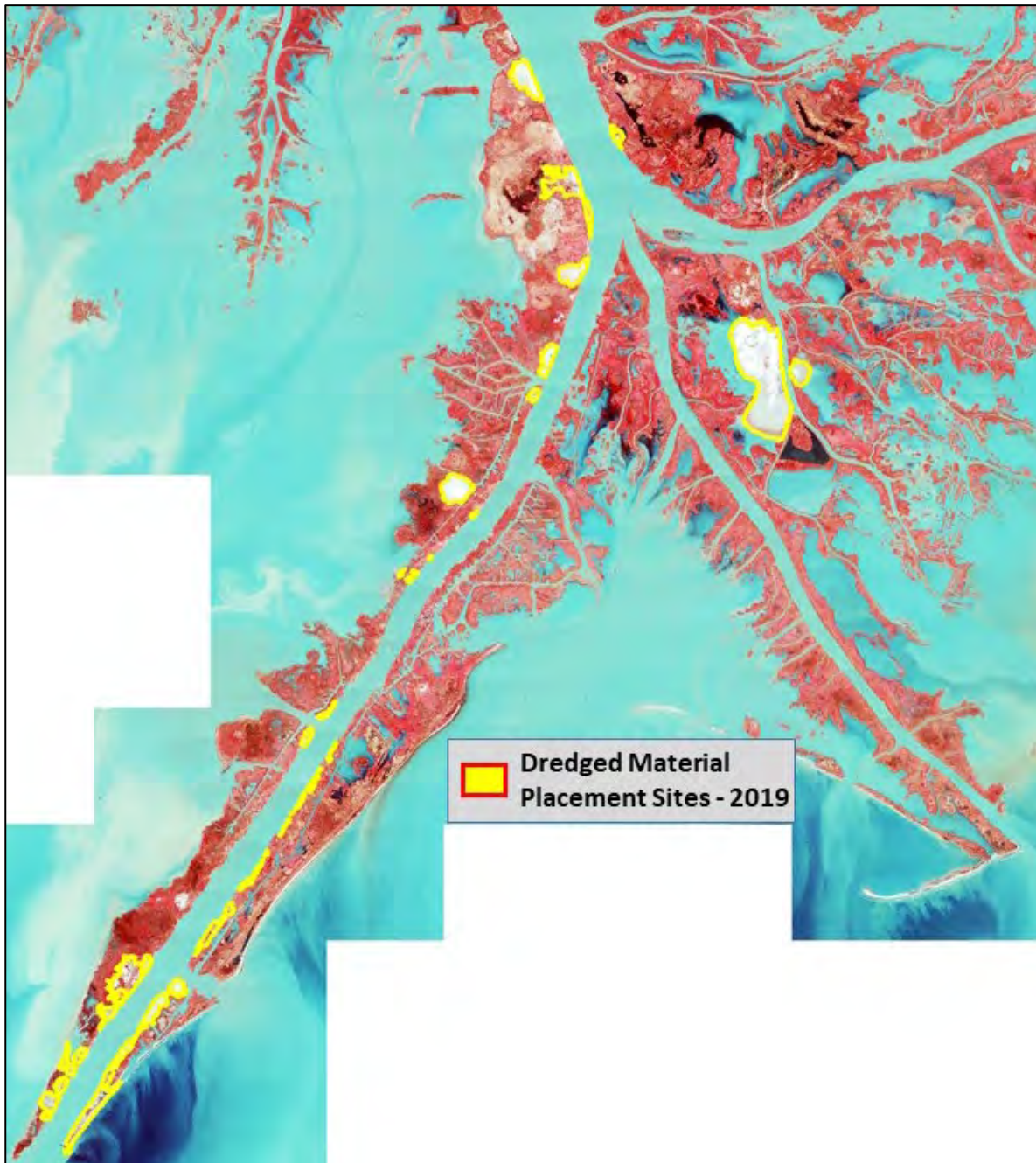
Approximately 1,074,495 CY were placed unconfined in shallow open water behind foreshore rocks from about **Mile 15.6 BHP** to **Mile 16.8 BHP** for bank stabilization on the west side of the channel. A total of about 148 acres of marsh habitat were created as a result of this placement effort.

Approximately 569,086 CY were placed unconfined in shallow open water behind foreshore rocks from about **Mile 17.0 BHP** to **Mile 17.7 BHP** for bank stabilization on the east side of the channel. No measureable marsh habitat was created as a result of this placement effort.

Results

For this contract work, approximately 977,980 CY of dredged material were placed for marsh creation on the west side of the channel. For bank stabilization, approximately 2,074,158 CY were placed on the west side of the channel, and 2,065,809 CY were placed on the east side of the channel. A total of 498 acres of marsh habitat were created by this placement effort.

Final contract cost was \$13,919,334.



Southwest Pass BU Sites (2019)