

# PROJECT COMPLETION REPORT

PROJECT NAME

Naomi Outfall Management Project

CWPPRA/STATE PROJECT NO.

BA-3c

Report Date: January 8, 2003

BY: USDA - NRCS

## 1. Project Managers/Contracting Officer:

DNR Project Manager	George Boddie	Telephone	(504) 288-7153
DNR Construction Project Manager	Van Cook	Telephone	(504) 283-6907
DNR Monitoring Manager	Bill Boshart	Telephone	(504) 288-3489
Federal Agency Project Manager	Richard Abshire	Telephone	(337) 291-3060
Federal Agency Contracting Officer	Charles Phillips	Telephone	(318) 473-7796
Federal Agency Construction Engineer	Dale Garber	Telephone	(985) 447-6050
Federal Agency Design Engineer	John Chua	Telephone	(318) 473-7674
Federal Agency Construction Inspector	Robert Payton	Telephone	(985) 447-6050

## 2. Location and description of projects as approved for construction by Task Force.

Project features are located near the town of Lafitte on two streams, Goose Bayou Canal and Bayou Dupont that connect the open water area of "The Pen" to the Barataria Bay Waterway. The project is designed to maximize the wetland benefits of the Naomi Siphon by reducing the exchange between the siphon outfall area and the Barataria Bay Waterway.

This project consists of two fixed crest rock weirs with boat bays across the above named channels. The weirs will assist in the management of the siphon outfall water by reducing freshwater loss from the project area and saltwater intrusion into the project area.

## 3. Final, as-built features, boundaries and resulting acreage (use attachments if necessary).

The Goose Bayou weir consists of a rock riprap structure that spans the channel from bank to bank at the entrance to "The Pen". The weir has a crest elevation set at an elevation of +1.5' NAVD 88 with a 30' wide boat bay at an elevation of -6.5' NAVD 88. The structure has 3 horizontal to 1 vertical side slopes with a peaked crest and an overall length 451'. Associated with the structure are warning signs, navigation aid lights and day board navigation signs all mounted on pilings. Also a cable and buoy barricade system for boater safety has been installed on each side of the structure.

The Bayou Dupont weir consists of a rock riprap structure that spans the channel from bank to bank at the entrance to the Barataria Bay Waterway. The weir has a crest elevation set at an elevation of +1.0' NAVD 88 with a 30' wide boat bay at an elevation of -6.5' NAVD 88. The structure has 3 horizontal to 1 vertical side slopes with a peaked crest and an overall length 302'. Associated with the structure are warning signs, navigation aid lights and day board navigation signs all mounted on pilings. Also a cable and buoy barricade system for boater safety has been installed on each side of the structure.

For further information regarding the actual constructed dimensions, locations and materials, see the "As Built" drawings for this project.

Actual Benefited Acres 633

4. Key project cost elements

	CWPPRA Project Cost Estimates**	Cost Incurred as of Construction Completion
Construction	\$ 825,414.00	\$ 784,250.78
E & D	\$ 169,848.00	\$ 189,897.38
Landrights	\$ 52,439.00	-
Monitoring	\$ 523,851.00	\$ 770.40
O & M	\$ 115,313.00	-
<b>Total</b>	<b>\$ 1,686,865.00</b>	<b>\$ 974,918.56</b>

\*\* Most recent estimate from CWPPRA Project estimates Report produced by USACOE.

5. Items of Work Construction Unit #2

Item No.	Work	Est. Quant.	Unit	Est. Unit Price	Est. Amount	Final Quant.	Bid Unit Price	Final Amount	% Over /Under
1	Mobilization and Demobilization	1	Job	L.S.	\$ 40,000.00	1	\$ 30,000.00	\$ 30,000.00	0%
2	Pollution Control	1	Job	L.S.	\$ 3,000.00	1	\$ 4,595.00	\$ 4,595.00	0%
3	Construction Surveys	1	Job	L.S.	\$ 5,000.00	1	\$ 10,000.00	\$ 10,000.00	0%
4	Timber Piling, Warning Signs	43	Each	\$ 1,000.00	\$ 43,000.00	43	\$ 800.00	\$ 34,400.00	0%
5	Rock Riprap Weir with Boat Bay @ Goose Bayou	2,160	Tons	\$ 37.00	\$ 79,920.00	3,967	\$ 39.00	\$ 154,713.00	83.7%
6	Rock Riprap Weir with Boat Bay @ Bayou Dupont	9,060	Tons	\$ 28.00	\$ 253,680.00	8,505	\$ 39.00	\$ 331,695.00	- 6.1%
7A	Metal Fab. & Installation Warning Signs, Type A	4	Each	\$ 2,500.00	\$ 10,000.00	4	\$ 1,150.00	\$ 4,600.00	0%
7B	Metal Fab. & Installation Warning Signs, Type b	8	Each	\$ 3,000.00	\$ 24,000.00	7	\$ 4,800.00	\$ 33,600.00	NA
7C	Metal Fab. & Installation Warning Signs, Type C	7	Each	\$ 2,000.00	\$ 14,000.00	7	\$ 1,550.00	\$ 10,850.00	0%
8	Geotextile, Goose Bayou	2,480	S.Y.	\$ 4.00	\$ 9,920.00	2,851.34	\$ 5.00	\$ 14,256.70	15.0%
9	Geotextile, Bayou Dupont	2,920	S.Y.	\$ 4.00	\$ 11,680.00	3,374.0	\$ 5.00	\$ 16,870.00	15.5%

Original Est. Amount \$ 494,200.00

Original Bid Amount \$ 597,425.00

Modification #1

7D	Metal Fab. & Installation Warning Signs, Type D	1	Each	\$ 1,612.00	\$ 1,612.00	1	\$ 445.65	\$ 445.65	0%
10	Pad Locks for Navigation Obstruction Lights	7	Each	\$ 20.00	\$ 20.00	7	\$ 27.74	\$ 194.18	0%

Modification #3

11	Buoy Safety Barricade, Bayou Dupont & Goose Bayou	1	Job	L.S.	\$ 30,880.00	1	\$ 50,000.00	\$ 50,000.00	0%
----	---	---	-----	------	--------------	---	--------------	--------------	----

**Final Contract Amount \$ 696,219.53**

**6. Construction and construction oversight**

Prime construction contractor	Bertucci Contracting Corporation
Subcontractor	Berry Brothers
Original construction contract	\$597,425.00
Change orders	\$54,160.17
Over/Under runs	\$44,634.36
Final construction contract	\$696,219.53

**Oversight & Administration for Construction Units #1**

Const. oversight contractor	N/A.	Final amt.	\$0.00
Cons. O.S./Admin. agency	NRCS	Est. amt.	

**7. Major equipment used.**

- Spud barge AB-4 with Bucyrus Erie 88B
- Spud barge BB-105 with 3400 Linkbelt
- Spud barge BB-107 with American 7250
- Captain Mack Tug
- Brad C Tug
- Miss Maggy Tug
- Brave Tug
- Various rock barges

**8. Discuss construction sequences and activities, problems encountered, solutions to problems, etc.**

The contractor began work by mobilizing to the Goose Bayou Structure first. The contractor began by staking out the locations of the signs and placing temporary warning signs. The contractor then began placing the geotextile for the structure starting at station 0+00 on the south end of the structure. Upon placement one panel of the geotextile, the material would then be secured with rock riprap. This process was continued until the entire quantity of geotextile for the structure was placed and secured. The contractor then had the subcontractor drive the piles for the warning signs and navigation aids. The rock riprap was then placed to the lines and grades defined by the contract.

Concurrent with the riprap and piling installation at Goose Bayou, the contractor grubbed the Bayou Dupont site and began placing the geotextile and securing the geotextile with rock riprap. Upon completion of the piling installation at Goose Bayou, the subcontractor moved to the Bayou Dupont site and began placing the piles for the warning signs and navigation aids. The prime contractor continued to place rock riprap for the Bayou Dupont structure. The final pile clusters at Bayou Dupont structure on the Barataria Bay Waterway Side were installed after the rock placement for the structure was completed because the piles would limit the contractor's access.

Due to greater than anticipated settlement at the Goose Bayou structure, the contractor had to bring additional rock to the site, which was accomplished with a modification. A modification to the contract was made to install cabled buoy barricades at both structures. This was the last work performed.

**8. Construction change orders and field changes.**

- Modification #1: At the request of the Coast Guard, the navigation light was removed from the northwestern most pile cluster at the Bayou Dupont structure. The Coast Guard was concerned that the planned light could cause confusion for marine traffic. This modification also included the installation of 7 pad locks for the navigation light boxes. The modification reduced the total value of the contract by \$4,160.17.
- Modification #2: This modification changed the boat bay and sign alignment at the Goose Bayou structure in order to provide better alignment for marine traffic. This was a no cost change modification.

- Modification #3: This modification included the addition of the cabled buoy barricade for both structures. The modification increased the total value of the contract by \$50,000.
- Modification #4: This modification allowed the contractor to use COE R-650 gradation riprap to complete the structures rather than the specified ASTM D-6092 R-300 gradation at the same unit price as the bid price.

**10. Pipeline and other utility crossings.**

<u>Structure</u>	<u>Owner</u>	<u>Rep. To Contact</u>
Pipeline (at Bayou Dupont)	Shell Pipeline Company	Carl Bertrand (337) 468-2823

**11. Safety and Accidents.**

No accidents were reported during the construction of the project. The contractor complied with safety requirements

**12. Additional comments pertaining to construction, completed project, etc.**

The Goose Bayou structure experienced greater than anticipated settlement. This caused problems for the contractor because the installation of the pile clusters and rock structure had been completed at Bayou Dupont, the access route to get to the Goose Bayou structure. This meant that small equipment had to be used to get the additional rock to the Goose Bayou structure, which required many trips across the shallow water area of "The Pen".

**13. Significant Construction Dates: To be filled out by DNR Construction Project Manager or Contracting Officer for construction for Agency responsible for construction.**

<b>Contract No.</b>	<b>50-7217-2-5</b>
	<b>Date</b>
<b>Bid Opening</b>	4/16/2002
<b>Construction Contract Award</b>	5/6/2002
<b>Preconstruction Conference</b>	5/30/2002
<b>Notice to Proceed</b>	6/3/2002
<b>Mobilization</b>	6/9/2002
<b>Construction Start</b>	6/11/2002
<b>Construction Completion</b>	8/16/2002
<b>Final Acceptance</b>	8/17/2002

## NRCS SUPPLEMENT TO COMPLETION REPORT

### CONSTRUCTION PLANS

List any items pertinent to the plans which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM IN PLANS	RECOMMENDATIONS FOR FUTURE CONTRACTS
Boating safety around structures with crest elevations at or near the normal water surface elevation	For those structures (weirs) with considerable boat traffic and crest elevations that may be submerged only one or two feet during high tide events, include in the contract plans and specifications a cabled buoy barricade system for boating safety.
Conspicuity Tape	In future plans include a note that the conspicuity tape shall be red and white. This is for greater visibility.
Location of all thread rods on navigation aid piling clusters	In future plans where pile clusters are included, the following items are recommended. The lower row of all thread bolts needs to be placed 30" below the top of the piles. This provides 24" between the top and bottom all thread bolts. The locations of the all thread bolts needs to be shown on the typical pile cluster drawings in the elevation view, as included in the As Built drawings for this project.

### CONSTRUCTION SPECIFICATIONS

List any significant items in the construction specifications which caused problems, need clarification or changes for future contracts of this nature.

DESCRIPTION OF ITEM IN SPECIFICATIONS	RECOMMENDATIONS FOR FUTURE CONTRACTS
Special Provisions – Notification of Pipeline Companies.	In future contracts add an additional requirement that the contractor provides the Government a written statement if a pipeline company chooses <b>not</b> to be on site during construction around their lines. This should be provided to the Government at least 48 hours prior to any work being performed near the pipeline.
Conspicuity Tape	In future specifications, specify that the conspicuity tape shall be red and white. This is for greater visibility.
Navigation Lights	In future contracts where navigation lights are required, include a requirement that the contractor supply locks with a solid brass bodies and stainless steel hasps all keyed alike for all battery enclosures.