United States Department of Agriculture
Natural Resources Conservation Service

OMB No. 0578-0030
NRCS-PDM-20

DAMAGE SURVEY REPORT (DSR)
Emergency Watershed Protection Program – Recovery

NRCS Entry Only
Eligible: YES ☐ NO ☐
Approved: YES ☐ NO ☐
Funding Priority Number (from Section 4) ____
Limited Resource Area: YES ☐ NO ☑

Section 1A

Date of Report: 09/13/2005

DSR Number: 07505005 K Project Number: ____

Section 1B Sponsor Information

Sponsor Name: Plaquemines Parish Government

Address: 106 Avenue G

City/State/Zip: Belle Chasse, LA 70037

Telephone Number: (504) 392-6690 Fax: (504) 297-5644

Section 1C Site Location Information

County: Plaquemines State: LA Congressional District: 3

Latitude: N29 49 07.6 Longitude: W89 57 50.6 Section: 9 Township: 14S Range: 12E

UTM Coordinates: ____

Drainage Name: Scardale Levee Repair South Reach: 1

Damage Description: Breach in levee south of Scardale Pumping Station due to Hurricane Katrina

Section 1D Site Evaluation

All answers in this Section must be YES in order to be eligible for EWP assistance.

Site Eligibility	YES	NO	Remarks
Damage was a result of a natural disaster?*	✔		
Recovery measures would be for runoff retardation or soil erosion prevention?*	✔		
Threat to life and/or property?*	✔		
Event caused a sudden impairment in the watershed?*	✔		
Imminent threat was created by this event?**	✔		
For structural repairs, not repaired twice within ten years?**	✔		
Site Defensibility			
Economic, environmental, and social documentation adequate to warrant action (Go to pages 3, 4, 5 and 6 ***)	✔		
Proposed action technically viable? (Go to Page 9 ***)	✔		

Have all the appropriate steps been taken to ensure that all segments of the affected population have been informed of the EWP program and its possible effects? YES ☑ NO ☐

Comments: ____

* Statutory
** Regulation
*** DSR Pages 3 through 5 are required to support the decisions recorded on this summary page. If additional space is needed on this or any other page in this form, add appropriate pages.

DSR NO: 07505005k

Section 1E Proposed Action

Describe the preferred alternative from Findings: Section 5 A:

Total installation cost identified in this DSR: Section 3: $385,845.00

Section 1F NRCS State Office Review and Approval

Reviewed By: _____ Date Reviewed: _____
State EWP Program Manager

Approved By: _____ Date Approved: _____
State Conservationist

PRIVACY ACT AND PUBLIC BURDEN STATEMENT

NOTE: The following statement is made in accordance with the Privacy Act of 1974, (5 U.S.C. 552a) and the Paperwork Reduction Act of 1995, as amended. The authority for requesting the following information is 7 CFR 624 (EWP) and Section 216 of the Flood Control Act of 1950, Public Law 81-516, 33 U.S.C. 701b-1; and Section 403 of the Agricultural Credit Act of 1978, Public Law 95334, as amended by Section 382, of the Federal Agriculture Improvement and Reform Act of 1996, Public Law 104-127, 16 U.S.C. 2203. EWP, through local sponsors, provides emergency measures for runoff retardation and erosion control to areas where a sudden impairment of a watershed threatens life or property. The Secretary of Agriculture has delegated the administration of EWP to the Chief or NRCS on state, tribal and private lands.

Signing this form indicates the sponsor concurs and agrees to provide the regional cost-share to implement the EWP recovery measure(s) determined eligible by NRCS under the terms and conditions of the program authority. Failure to provide a signature will result in the applicant being unable to apply for or receive a grant the applicable program authorities. Once signed by the sponsor, this information may not be provided to other agencies. IRS, Department of Justice, or other State or Federal Law Enforcement agencies, and in response to a court or administrative tribunal.

The provisions of criminal and civil fraud statutes, including 18 U.S.C. 286, 287, 371, 641, 651, 1001; 15 U.S.C. 714m; and 31 U.S.C. 3729 may also be applicable to the information provided. According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0578-0030. The time required to complete this information collection is estimated to average 117/1.96 minutes/hours per response, including the time for reviewing instructions, searching existing data sources, field reviews, gathering, designing, and maintaining the data needed, and completing and reviewing the collection information.

USDA NONDISCRIMINATION STATEMENT

"The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, martial status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programms.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202)720-2600 (vocie and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW., Washington, DC 20250-9410, or call (800)795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Civil Rights Statement of Assurance

The program or activities conducted under this agreement will be in compliance with the nondiscrimination provisions contained in the Titles VI and VII of the Civil Rights Act of 1964, as amended; the Civil Rights Restoration Act of 1987 (Public Law 100-259); and other nondiscrimination statutes: namely, Section 504 of the Rehabilitation Act of 1973, Title IX of the Amendments of 1972, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990. They will also be in accordance with regulations of the Secretary of Agriculture (7 CFR 15, 15a, and 15b), which provide that no person in the United States shall on the grounds of race, color, national origin, gender, religion, age or disability, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination under any program or activity receiving Federal financial assistance from the U.S. Department of Agriculture or any agency thereof.

DSR NO: 07505005K

Section 2 Environmental Evaluation

2A Resource Concerns	2B Existing Condition	2C Alternative Designation		
		Proposed Action	No Action	Alternative
		Repair levee breach with on-site material and hauled in off-site material		Repair levee breach with on-site material.
		2D Effects of Alternatives		
Soil				
Levee breach	Lost 12,352 tons	No loss	Breach widen	No loss
Water				
Downstream water rights				
Flooding	High potential for flooding	significant decrease in flooding	High potential for flooding	significant decrease in flooding
Air				
PM-10	attainment	short term increase	Long term increase from pump	short term increase
Plant				
Aquatic health/vigor	Poor	Improved	Poor	Improved
Levee Vegetation	Levee Exposed	Reduced Levee to decrease erosion	increased erosion of levee	decreased erosion
Diversity	No vegetation	Long term increase	no vegetation	short term increase
Animal				
Wildlife habitat	Loss of habitat	Increase long term	Loss of habitat	Increased short term
Other				
Health	Poor due to stagnant water	Improved water quality	Poor due to stagnant water	Improved water quality

DSR NO: 07505005k

Section 2E Special Environmental Concerns

Resource Consideration	Existing Condition	Alternatives and Effects		
		Proposed Action	No Action	Alternative
Clean Water Act Waters of the U.S.	Poor water quality/Low DO, High BOD, CWA Permit not needed	Improved water quality; improved BOD&DO CWA Permit	Poor water quality/Low DO, High BOD, CWA Permit not needed	Improved water quality; improved BOD&DO CWA Permit
Coastal Zone Management Areas	Water flow patterns altered	Water flow patterns restored; minimal adverse impacts as a result of project	Water flow patterns altered;	Water flow patterns restored; minimal impacts as a result of project
Coral Reefs	N/A			
Cultural Resources	(FOTG) none observed on-site	(FOTG) none observed on-site	(FOTG) none observed on-site	(FOTG) none observed on-site
Endangered and Threatened Species	(FOTG) (Federal/State lists) none observed on-site	(FOTG) (Federal/State lists) none observed on-site	(FOTG) (Federal/State lists) none observed on-site	(FOTG) (Federal/State lists) none observed on-site
Environmental Justice	Increased risk of flooding to low income and minorities	Decreased risk of flooding to low income and minorities	Increased risk of flooding to low income and minorities	Decreased risk of flooding to low income and minorities
Essential Fish Habitat	Water quality lowered of EFH	Improve quality of EFH	Water quality lowered of EFH	Improve quality of EFH
Fish and Wildlife Coordination	State level review by project type with USFWS&LDWF; Consultation not required for debris removal.	State level review by project type with USFWS&LDWF; Consultation not required.	State level review by project type with USFWS&LDWF; Consultation not required.	State level review by project type with USFWS&LDWF; Consultation not required.
Floodplain Management	100-year floodplain function is impaired by restricted function of pumping capacity	100-year floodplain function restored	100-year floodplain function is impaired by restricted function of pumping capacity	100-year floodplain function restored
Invasive Species	None identified	None identified	None identified	None identified
Migratory Birds	Food&cover quality reduced	Food&cover quality improved	Food&cover quality reduced	Food&cover quality improved
Natural Areas	(FOTG) None present	(FOTG) None present	(FOTG) None present	(FOTG) None present
Prime and Unique Farmlands	(FOTG) Flooding will affect prime farmland	(FOTG) Prime farmland protected	(FOTG) Flooding will affect prime farmland	(FOTG) Prime farmland protected
Riparian Areas	High velocity flows destroyed Riparian Zone	Riparian Zone will naturally reestablish along berms of levee	High velocity flows destroyed Riparian Zone	Riparian Zone will naturally reestablish along berms of levee
Scenic Beauty	(FOTG) None present	(FOTG) None present	(FOTG) None present	(FOTG) None present
Wetlands	Wetlands disturbed by levee breach, increased water depth and sedimentation	Sufficient increase in wetlands	Wetlands disturbed by levee breach, increased water depth and sedimentation	Sufficient increase in wetlands
Wild and Scenic Rivers	(FOTG) (LDWF scenic streams list) None present	(FOTG) (LDWF scenic streams list) None present	(FOTG) (LDWF scenic streams list) None present	(FOTG) (LDWF scenic streams list) None present

Completed By: Michael Nichols Date: 09/13/2005

DSR NO: 0750500 k

Section 2F Economic

This section must be completed by each alternative considered (attach additional sheets as necessary).

	Future Damages ($)	Damage Factor (%)	Near Term Damage Reduction
Properties Protected (Private)			
200 HOUSES	15,000,000.00	10	1,500,000.00
VEGETABLE OIL STORAGE FACILITY	10,000,000.00	10	1.000.000.00
SHIP YARD	5,000,000.00	10	500,000.00
STORE	200,000.00		20,000.00
Properties Protected (Public)			
PARK	100,000.00	10	10,000.00
2 CHURCHES	400,000.00	10	40,000.00
Business Losses			
Other			
Total Near Term Damage Reduction $			3,070,000.00
Net Benefit (Total Near Term Damage Reduction minus Cost from Section 3)			2,684,155.00

Completed By: MN, AB Date: 09/13/2005

Section 2G Social Consideration This section must be completed by each alternative considered

(attach additional sheets as necessary).

	YES	NO	Remarks
Has there been a loss of life as a result of the watershed impairment?	✔		
Is there the potential for loss of life due to damages from the watershed impairment?	✔		
Has access to a hospital or medical facility been impaired by watershed impairment?	✔		If another event occurs, severe flooding is inevitable.
Has the community as a whole been adversely impacted by the watershed impairment (life and property ceases to operate in a normal capacity)	✔		Flooding has increased due to breach of levee.
Is there a lack or has there been a reduction of public safety due to watershed impairment?	✔		The next event would jeopardize public safety by damaging nearby plant and local community

Completed By: MN, AB Date: 09/13/2005

DSR NO: 07505005K

Section 2H Group Representation and Disability Information

This section is completed only for the preferred alternative selected.

Group Representation	Number
American Indian/Alaska Native Female Hispanic	
American Indian/Alaska Native Female Non-Hispanic	7
American Indian/Alaska Native Male Hispanic	
American Indian/Alaska Native Male Non-Hispanic	6
Asian Female Hispanic	
Asian Female Non-Hispanic	3
Asian Male Hispanic	
Asian Male Non-Hispanic	2
Black or African American Female Hispanic	
Black or African American Female Non-Hispanic	404
Black or African American Male Hispanic	
Black or African American Male Non-Hispanic	390
Hawaiian Native/Pacific Islander Female Hispanic	
Hawaiian Native/Pacific Islander Female Non-Hispanic	
Hawaiian Native/Pacific Islander Male Hispanic	
Hawaiian Native/Pacific Islander Male Non-Hispanic	
White Female Hispanic	
White Female Non-Hispanic	305
White Male Hispanic	
White Male Non-Hispanic	299
Total Group	1416

Census tract(s) 501 - Plaquemines Parish (use 50% of 501)

Completed By: AB Date: 09/13/2005

DSR NO: 07505005 K

Section 2I. Required consultation or coordination between the lead agency and/or the RFO and another governmental unit including tribes:

Easements, permissions, or permits:

Access permission will be required. Agreement will be between landowners and Plaquemines Parish Government Sponsor shall obtain a CWA, Water Quality and a CUP Permit.

Mitigation Description:

Avoid sedimentation during construction into adjacent canal and wetlands.

Agencies, persons, and references consulted, or to be consulted:

USACE- United States Army Corps of Engineers
USF&WS- United States Fish and Wildlife Service
LA DEQ
LA DNR

SCARSDALE LEVEE REPAIR - SOUTH

DSR NO: 075-05-005K

Section 3 Engineering Cost Estimate

Completed By: DALE GARBER Date: 9/17/05

This section must be completed by each alternative considered (attach additional sheets as necessary).

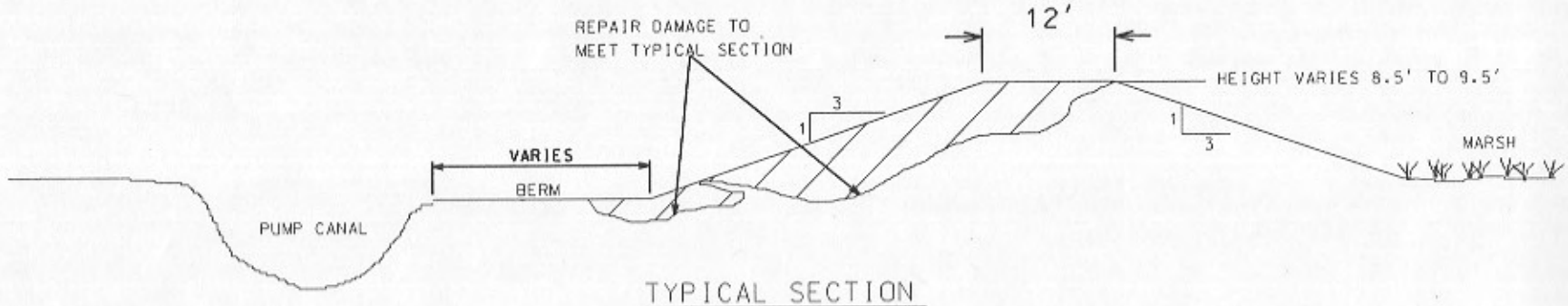
Proposed Recovery Measure (including mitigation)	Quantity	Units	Unit Cost ($)	Amount ($)
MOB. / DEMOB	1	LS	$25,000.00	$25,000.00
LEVEE REPAIR	10,167	CY	$35.00	355,845.00
SEEDING	1	LS	$5000.00	5,000.00
Total Installation Cost (Enter in Section 1F) $				385,845.00

Unit Abbreviations:

AC Acre
CY Cubic Yard
EA Each
HR Hour
LF Linear Feet
LS Lump Sum
SF Square Feet
SY Square Yard
TN Ton
Other (Specify)

13 days

Approved 7/2005



TYPICAL SECTION
N.T.S.

NOTES:

1. ACCESS SHALL BE ON THE LEVEE OR IN PUMP CANAL.
2. DAMAGE TO LEVEE,BERM,OR ACCESS ROADS RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO CONDITION PRIOR TO START OF CONSTRUCTION.
3. LEVEE AND BERM SHALL BE REPAIRED TO MEET TYPICAL SECTION SHOWN. ENDS OF REPAIR AREAS SHALL BLEND INTO UN-DAMAGED LEVEE SECTIONS.
4. EXISTING MATERIAL DEPOSITED ON BERM MAY BE USED FOR REPAIRS. BERM SHALL NOT BE DAMAGED OR DEGRADED BELOW ELEVATION OF TYPICAL SECTION. ADDITIONAL MATERIAL NEEDED SHALL BE HAULED IN.
5. DEBRIS WITHIN WORK LIMITS SHALL BE REMOVED AND PLACED AT MARSH SIDE TOE OF LEVEE.

NOTICE:
48 HOURS BEFORE DIGGING
CALL 1-800-272-3020
TO LOCATE UTILITY LINES

REVISIONS		
DATE	REVISED	TITLE

DATE
DESIGNED
DRAWN
CHECKED
APPROVED

TYPICAL SECTION
SCARSDALE LEVEE REPAIR
PLAQUEMINES PARISH
LOUISIANA

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

FILE NAME
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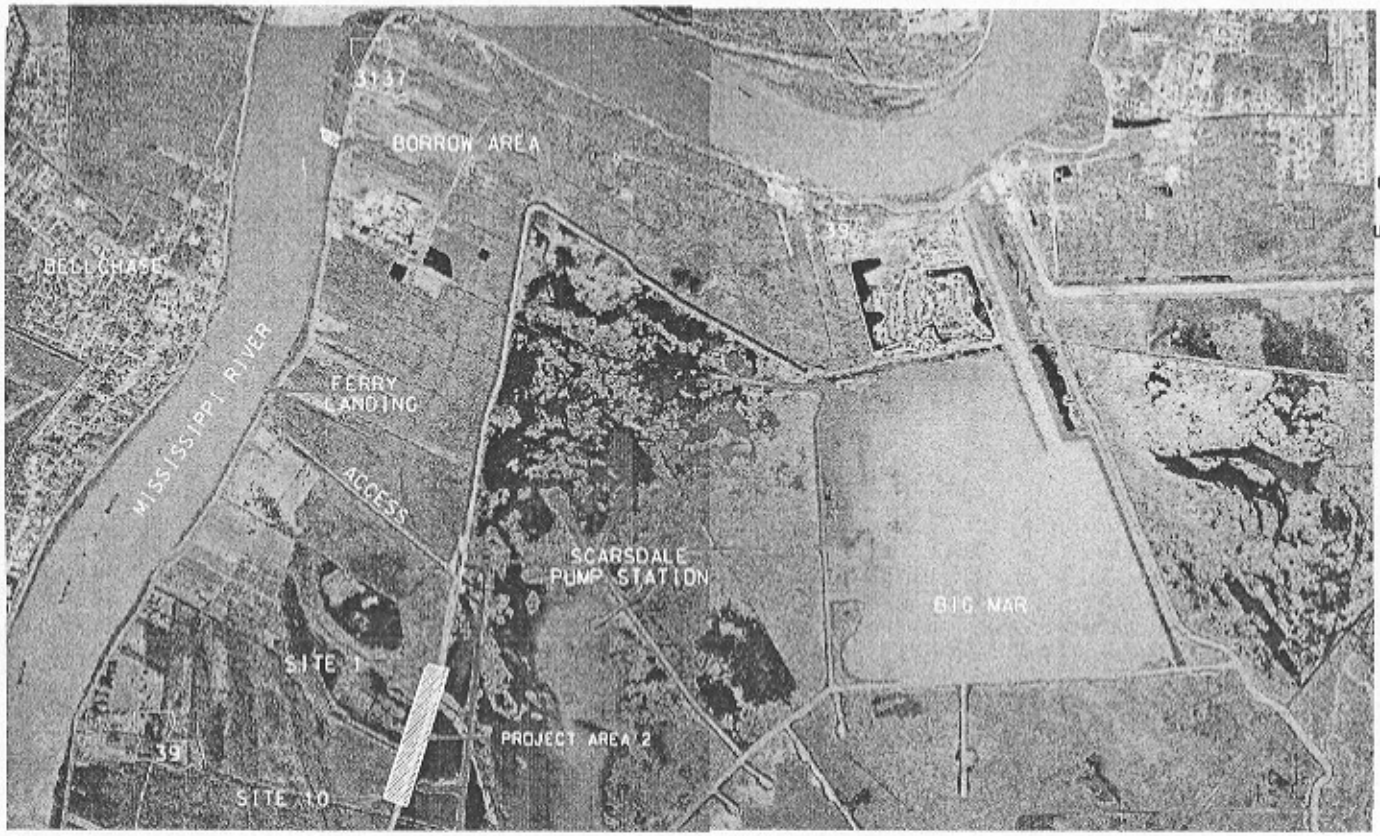
ATTACHMENT B



EMERGENCY REPAIR
PLAQUEMINES PARISH
EMERGENCY WATERSHED PROTECTION PROGRAM
BY THE NATURAL RESOURCES CONSERVATION SERVICE OF THE
UNITED STATES DEPARTMENT OF AGRICULTURE
2005

N

SCALE IN FEET
2000 0 2000 4000 6000 8000
SCALE IN MILES
1/8 1/4 3/8 1/2 3/8 1/4 1/8 0 1

INDEX OF DRAWINGS

1 LOCATION AND VICINITY MAP
2 SITES 1 - 10 MAP
3 TYPICAL SECTION

BORROW AREA		
1	29 52 7.52	89 58 18.22
2	29 52 3.73	89 58 17.22
3	29 52 1.91	89 58 12.78
4	29 52 4.83	89 58 11.98

REVISIONS		
DATE	APPROVED	TITLE

DESIGNED
DRAWN
CHECKED
APPROVED
DATE

LOCATION AND VICINITY MAP
PROJECT AREA 2
SCARSDALE LEVEE REPAIR
PLAQUEMINES PARISH ,LOUISIANA

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

FILE NAME
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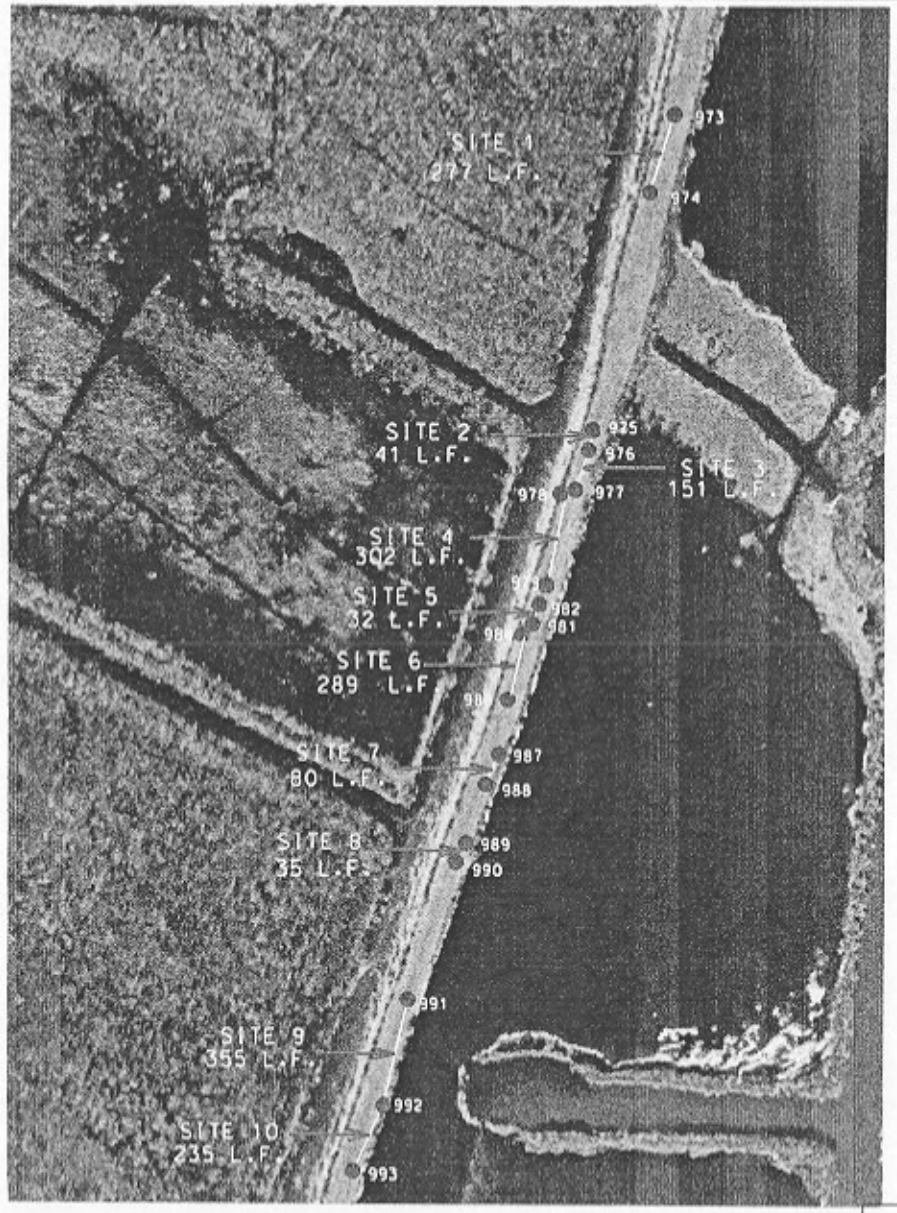
ATTACHMENT C



PROJECT AREA 2
SITES 1 - 10

WAYPOINTS		
973	29 49 29.0	089 57 43.1
974	29 49 26.7	089 57 44.0
975	29 49 18.4	089 57 46.5
976	29 49 18.0	089 57 46.6
977	29 49 16.6	089 57 47.2
978	29 49 16.4	089 57 47.6
979	29 49 13.5	089 57 48.4
981	29 49 12.3	089 57 48.9
982	29 49 12.6	089 57 48.8
984	29 49 11.7	089 57 49.3
986	29 49 09.7	089 57 50.1
987	29 49 07.6	089 57 50.6
988	29 49 06.9	089 57 51.0
989	29 49 04.6	089 57 52.0
990	29 49 04.3	089 57 52.2
991	29 48 59.4	089 57 54.4
992	29 48 56.8	089 57 55.4
993	29 48 53.9	089 57 56.6

ESTIMATED QUATITIES

SITE #	C.Y.
1	90
2	500
3	130
4	1820
5	85
6	2500
7	25
8	15
9	4500
10	502
TOTAL	10,167

NOTICE!
48 HOURS BEFORE DIGGING
CALL 1-800-272-3020
TO LOCATE UTILITY LINES

REVISIONS		
DATE	REVISED	TITLE

DESIGNED
DRAWN
CHECKED
APPROVED
DATE

PROJECT AREA 2
SITES 1 -10
SCARDALES LEVEE REPAIR
PLAQUEMINES PARISH, LOUISIANA

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

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Attachment C

DSR NO: 07505005 K

Section 4 NRCS EWP Funding Priority

Complete the following section to compute the funding priority for the recovery measures in this application (see instructions on page 10).

Priority Ranking Criteria	Yes	No		Ranking Number Plus Modifer
1. Is this an exigency situation?	☑	☐		1c, e
2. Is this a site where there is serious, but not immediate threat to human life?	☐	☐		
3. Is this a site where buildings, utilities, or other important infrastructure components are threatened?	☐	☐		
4. Is this site a funding priority established by the NRCS Chief?	☐	☐		
The following are modifiers for the above criteria			**Modifier**	
a. Will the proposed action or alternatives protect or conserve federally-listed threatened and endangered species or critical habitat?				
b. Will the proposed action or alternatives protect or conserve cultural sites listed on the National Register of Historic Places?				
c. Will the proposed action or alternatives protect or conserve prime or important farmland?			c	
d. Will the proposed action or alternatives protect or conserve existing wetlands?				
a. Will the proposed action or alternatives maintain or improve current water quality conditions?			e	
f. Will the proposed action or alternatives protect or conserve unique habitat, including but not limited to, areas inhabited by State-listed species, fish and wildlife management area, or State identified sensitive habitats?				

Enter priority computation in Section 1A, NRCS Entry, Funding priority number.

Remarks:

DSR NO: 07505005 K

Section 5A Findings

Finding: Indicate the preferred alternative from Section 2 (Enter to Section 1E):

I have considered the effects of the action and the alternatives on the Environmental Economic, Social; the Special Environmental Concerns; and the extraordinary circumstances (40 CFR 1508.27). I find for the reasons stated below, that the preferred alternative:

✓ Has been sufficiently analyzed in the EWP PEIS (reference all that apply)

Chapter 5.2.2.1.2
Chapter 5.2.2.2.1
Chapter
Chapter
Chapter

May require the preparation of an environmental assessment or environmental impact statement .
The action will be referred to the NRCS State Office on this date:

NRCS representative of the DSR team

Title: Date: 09/19/2005

Allen Bolotte
District Conservationist

Section 5B Comments:

Section 5C

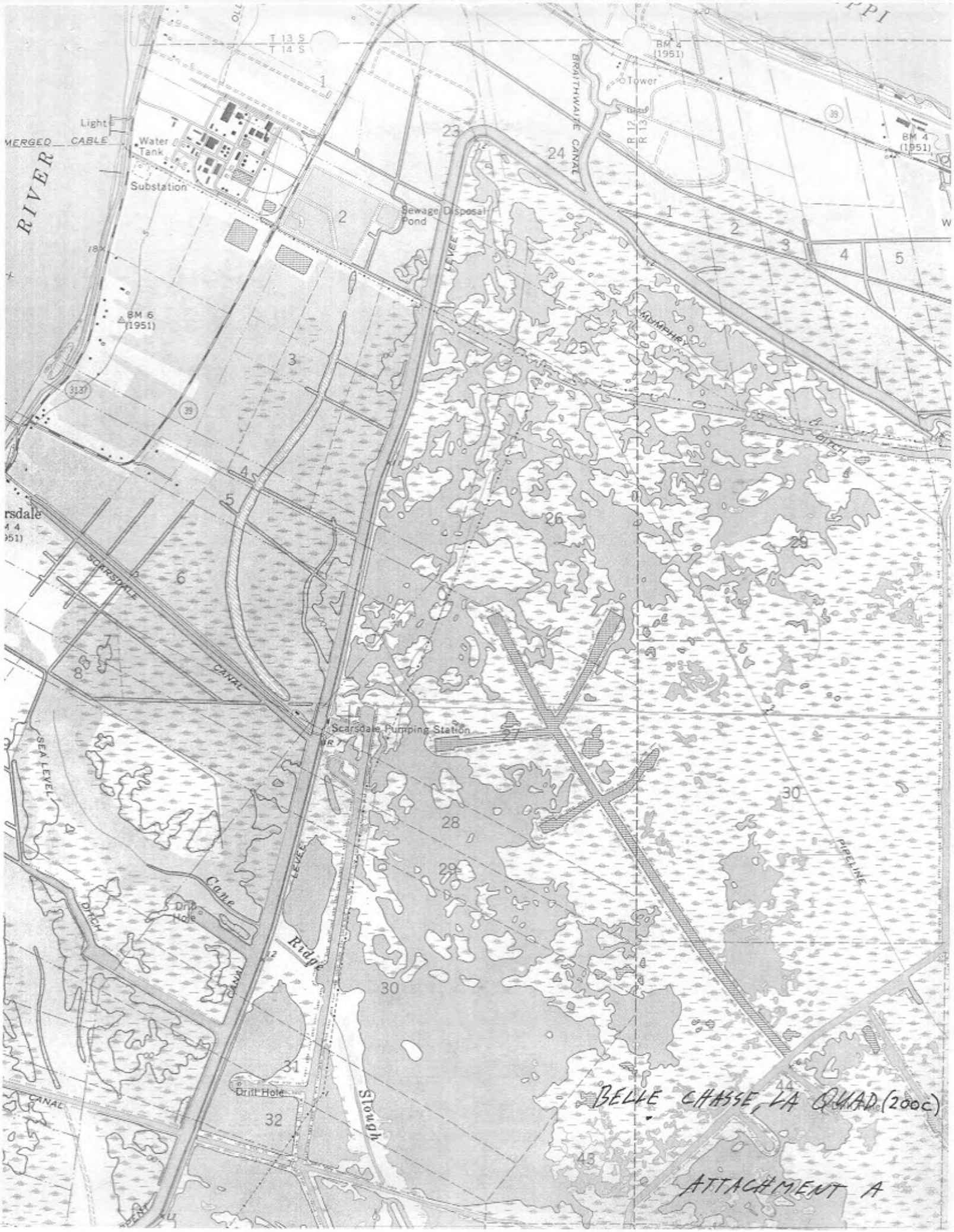
Sponsor Representative

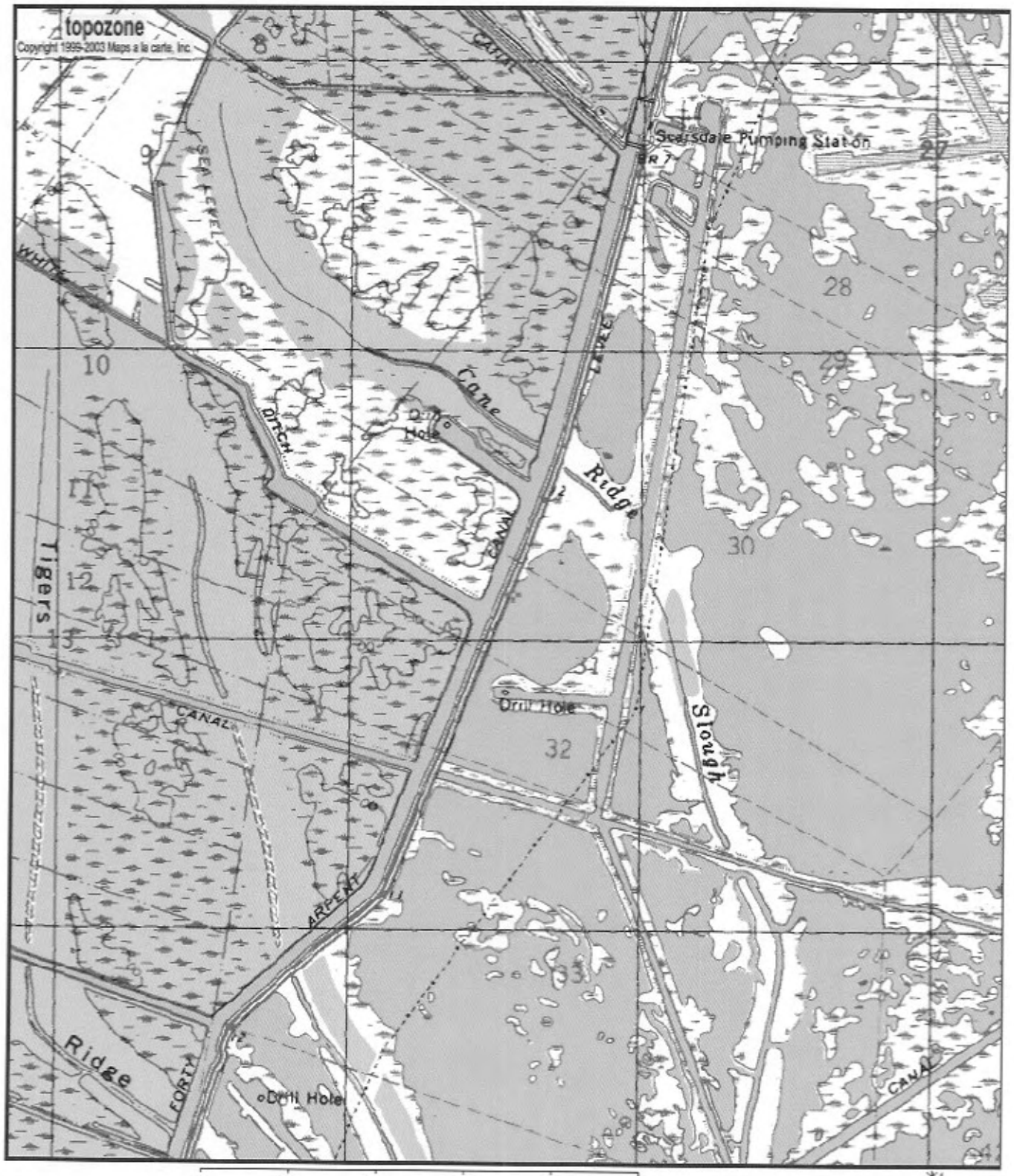
Sponsor Concurrence:

Title: Date: 10/11/05

Section 6 Attachments:

A. Location Map
B. Site Plan or Sketches
C. Other (explain)


T 13 S
T 14 S
BM 4 (1951)
Tower
BRAITHWAITE CANAL
R 12
R 13
Light
MERGED CABLE
Water Tank
Substation
RIVER
Sewage Disposal Pond
LEVEE
MUMPHRY
DITCH
BM 6 (1951)
3137
39
rsdale
SCARSDALE
CANAL
Scarsdale Pumping Station
SEA LEVEL
Cane
Ridge
Drill Hole
DITCH
CANAL
LEVEE
Slough
PIPELINE
BELLE CHASSE, LA QUAD (200c)
ATTACHMENT A



0 0.3 0.6 0.9 1.2 1.5 km

0 0.2 0.4 0.6 0.8 1 mi

M
G

Map center is 29° 49' 08"N, 89° 57' 51"W (WGS84/NAD83)
Belle Chasse quadrangle
Projection is UTM Zone 16 NAD83 Datum

M=0.528
G=-1.475

Construction Specification 2—Clearing and Grubbing

1. Scope

The work consists of clearing and grubbing and disposal of trees, snags, logs, brush, stumps, shrubs, and rubbish from the designated areas.

2. Protection of existing vegetation

Trees and other vegetation designated to remain undisturbed shall be protected from damage throughout the duration of the construction period. Any damages resulting from the contractor's operations or neglect shall be repaired by the contractor.

Earthfill, stockpiling of materials, vehicular parking, and excessive foot or vehicular traffic shall not be allowed within the drip line of vegetation designated to remain in place. Vegetation damaged by any of these or similar actions shall be replaced with viable vegetation of the same species, similar condition, and like size unless otherwise approved by the contracting officer.

Any cuts, skins, scrapes, or bruises to the bark of the vegetation shall be carefully trimmed and local nursery accepted procedures used to seal damaged bark.

Any limbs or branches 0.5 inch or larger in diameter that are broken, severed, or otherwise seriously damaged during construction shall be cut off at the base of the damaged limb or branch flush with the adjacent limb or tree trunk. All roots 1-inch or larger in diameter that are cut, broken, or otherwise severed during construction operations shall have the end smoothly cut perpendicular to the root. Roots exposed during excavation or other operations shall be covered with moist earth or backfilled as soon as possible to prevent the roots from drying out.

3. Marking

The limits of the area(s) to be cleared and grubbed will be marked by stakes, flags, tree markings, or other suitable methods. Trees to be left standing and uninjured will be designated by special markings placed on the trunk about 6 feet above the ground surface.

4. Clearing and grubbing

All trees not marked for preservation and all snags, logs, brush, stumps, shrubs, rubbish, and similar materials shall be cleared from within the limits of the designated areas. Unless otherwise specified, all stumps, roots, and root clusters that have a diameter of 1 inch or larger shall be grubbed out to a depth of at least 2 feet below subgrade for concrete structures and 1 foot below the ground surface at embankment sites and other designated areas.

5. Disposal

All materials cleared and grubbed from the designated areas shall be disposed of at locations shown on the drawings or in a manner specified in section 7. The contractor is responsible for complying with all local rules and regulations and the payment of any and all fees that may result from disposal at locations away from the project site.

6. Measurement and payment

Method 1—For items of work for which specific units prices are established in the contract, the cleared and grubbed area is measured to the nearest 0.1 acre. Payment for clearing and grubbing is made for the total area within the designated limits at the contract unit price. Such payment

will constitute full compensation for all labor, equipment, tools, and all other items necessary and incidental to the completion of the work.

Method 2—For items of work for which specific unit prices are established in the contract, the length of the cleared and grubbed area is measured to the nearest full station (100 feet) along the line designated on the drawing or identified in the specifications. Payment for clearing and grubbing is made for the total length within the designated limits at the contract unit price. Such payment will constitute full compensation for all labor, equipment, tools, and all other items necessary and incidental to the completion of the work.

Method 3—For items of work for which specific unit prices are established in the contract, each tree, stump, and snag having a diameter of 4 inches or larger and each log having a diameter of 4 inches or larger and a length of 10 feet are measured before removal. The size of each tree and snag is determined by measuring its trunk at breast height above the natural ground surface. The size of each log is determined by measuring the butt and by measuring its length from butt to tip. The size of each stump is measured at the top. Diameter is determined by dividing the measured circumference by 3.14.

Payment for clearing and grubbing of each tree, stump, and snag having a diameter of 4 inches or larger and each log having a diameter of 4 inches or larger and a length of 10 feet or larger is made at the contract unit price for its size designation as determined by the following schedule:

Measured diameter (in)	Size designation (in)
4 to 8	6
8 to 12	10
12 to 24	18
24 to 36	30
36 to 60	48
Over 60	60

The sum of such payments shall constitute full compensation for clearing and grubbing (including the clearing and grubbing of smaller trees, stumps, snags, logs, brush, shrubs, and roots), applicable permits and associated fees, and rubbish removal. Such payment shall constitute full compensation for all labor, equipment, tools, and all other items necessary and incidental to the completion of the work.

Method 4—For items of work for which specific lump sum prices are established in the contract, payment for clearing and grubbing is made at the contract lump sum price. Such payment shall constitute full compensation for all labor, equipment, tools, and all other items necessary and incidental to the completion of the work.

All Methods—The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract, but not listed in the bid schedule will be included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in section 7.

7. Items of work and construction details

(See next page.)

7. **Items of work and construction details**

Items of work to be performed in conformance with this specification and the construction details therefore are:

a. Subsidiary Item, Clearing and Grubbing

(1) This item shall consist of clearing and removal of debris from the construction area as necessary to do the repair work as shown on the construction drawings and as called for by the Specifications.

(2) All cleared materials and debris (trees, brush, and other foreign materials), above the ground surface, shall be removed from the repair site to the extent necessary to perform the work.

(3) All cleared materials and debris shall be disposed of on the marsh side of the levee.

(4) No separate payment will be made for this item. Compensation for "Clearing and Grubbing" will be included in the payment for Bid Item 1, Levee Repair.

Construction Specification 5—Pollution Control

1. Scope

The work consists of installing measures or performing work to control erosion and minimize the production of sediment and other pollutants to water and air from construction activities.

2. Material

All material furnished shall meet the requirements of the material specifications listed in section 8 of this specification.

3. Erosion and sediment control measures and works

The measures and works shall include, but are not limited to, the following:

Staging of earthwork activities—The excavation and moving of soil materials shall be scheduled to minimize the size of areas disturbed and unprotected from erosion for the shortest reasonable time.

Seeding—Seeding to protect disturbed areas shall occur as soon as reasonably possible following completion of that earthwork activity.

Mulching—Mulching to provide temporary protection of the soil surface from erosion.

Diversions—Diversions to divert water from work areas and to collect water from work areas for treatment and safe disposition. They are temporary and shall be removed and the area restored to its near original condition when the diversions are no longer required or when permanent measures are installed.

Stream crossings—Culverts or bridges where equipment must cross streams. They are temporary and shall be removed and the area restored to its near original condition when the crossings are no longer required or when permanent measures are installed.

Sediment basins—Sediment basins collect, settle, and eliminate sediment from eroding areas from impacting properties and streams below the construction site(s). These basins are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

Sediment filters—Straw bale filters or geotextile sediment fences trap sediment from areas of limited runoff. Sediment filters shall be properly anchored to prevent erosion under or around them. These filters are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

Waterways—Waterways for the safe disposal of runoff from fields, diversions, and other structures or measures. These works are temporary and shall be removed and the area restored to its original condition when they are no longer required or when permanent measures are installed.

Other—Additional protection measures as specified in section 8 of this specification or required

8. Items of work and construction details

Items of work to be performed in conformance with this specification and the construction details therefor are:

a. Subsidiary Item, Pollution Control

(1) This item shall consist of all work necessary to control erosion and sediment pollution, chemical pollution, water pollution and air pollution during the period of this contract.

(2) The Contractor shall perform the work in a manner that will reduce erosion, minimize sediments and other pollutants to the water and streams and create a minimum of air pollution consistent with standard construction operations.

(3) The contractor shall perform work in such a manner that all Local, State and Federal regulations regarding pollution (i.e. air, water, etc.) are adhered to.

(4) No separate payment will be made for this item. Compensation for Subsidiary Item, Pollution Control will be included in the payment for [redacted] Levee Repair [redacted], to which it is associated.

Construction Specification 6—Seeding, Sprigging, and Mulching

1. Scope

The work consists of preparing the area for treatment; furnishing and placing seed, sprigs, mulch, fertilizer, inoculant, lime, and other soil amendments; and anchoring mulch in designated areas as specified.

2. Material

Seed—All seed shall conform to the current rules and regulations of the state where it is being used and shall be from the latest crop available. It shall meet or exceed the standard for purity and germination listed in section 7.

Seed shall be labeled in accordance with the state laws and the U.S. Department of Agriculture rules and regulations under the Federal Seed Act in effect on the date of invitations for bids. Bag tag figures are evidence of purity and germination. No seed will be accepted with a test date of more than 9 months before the delivery date to the site.

Seed that has become wet, moldy, or otherwise damaged in transit or storage will not be accepted. The percent of noxious weed seed allowable shall be as defined in the current State laws relating to agricultural seeds. Each type of seed shall be delivered in separate sealed containers and fully tagged unless exception is granted in writing by the contracting officer.

Fertilizer—Unless otherwise specified, the fertilizer shall be a commercial grade fertilizer. It shall meet the standard for grade and quality specified by State law. Where fertilizer is furnished from bulk storage, the contractor shall furnish a supplier's certification of analysis and weight. When required by the contract, a representative sample of the fertilizer shall be furnished to the contracting officer for chemical analysis.

Inoculants—The inoculant for treating legume seeds shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species and shall not be used later than the date indicated on the container or as otherwise specified. A mixing medium, as recommended by the manufacturer, shall be used to bond the inoculant to the seed. Two times the amount of the inoculant recommended by the manufacturer shall be used except four times the amount shall be used when seed is applied using a hydraulic seeder. Seed shall be sown within 24 hours of treatment and shall not remain in the hydraulic seeder longer than 4 hours.

Lime and other soil amendments—Lime shall consist of standard ground agriculture limestone, or approved equivalent. Standard ground agriculture limestone is defined as ground limestone meeting current requirements of the State Department of Agriculture. Other soil amendments shall meet quality criteria and application requirements specified in section 7.

Mulch tackifiers—Asphalt emulsion tackifiers shall conform to the requirements of ASTM D 977, Specification for Emulsified Asphalt. The emulsified asphalt may be rapid setting, medium setting, or slow setting. Nonasphaltic tackifiers required because of environmental considerations shall be as specified in section 7.

Straw mulch material—Straw mulch shall consist of wheat, barley, oat or rye straw, hay, grass cut from native grasses, or other plants as specified in section 7. The mulch material shall be air-

dry, reasonably light in color, and shall not be musty, moldy, caked, or otherwise of low quality. The use of mulch that contains noxious weeds is not permitted. The contractor shall provide a method satisfactory to the contracting officer for determining weight of mulch furnished.

Other mulch materials—Mulching materials, such as wood cellulose fiber mulch, mulch tackifiers, synthetic fiber mulch, netting, and mesh, are other mulching materials that may be required for specialized locations and conditions. These materials, when specified, must be accompanied by the manufacturer's recommendations for methods of application.

3. Seeding mixtures, sod, sprigs, and dates of planting

The application rate per acre for seed mixtures, sprigs, or sod and date of seeding or planting shall be as shown on the plans or as specified in section 7.

4. Seedbed preparation and treatment

Areas to be treated shall be dressed to a smooth, firm surface. On sites where equipment can operate on slopes safely, the seedbed shall be adequately loosened (4 to 6 inches deep) and smoothed. Depending on soil and moisture conditions, disking or cultipacking, or both, may be necessary to properly prepare a seedbed. Where equipment cannot operate safely, the seedbed shall be prepared by hand methods by scarifying to provide a roughened soil surface so that broadcast seed will remain in place.

If seeding is to be accomplished immediately following construction operations, seedbed preparation may not be required except on a compacted, polished, or freshly cut soil surface.

Rocks larger than 6 inches in diameter, trash, weeds, and other debris that will interfere with seeding or maintenance operations shall be removed or disposed of as specified in section 7.

Seedbed preparation shall be discontinued when soil moisture conditions are not suitable for the preparation of a satisfactory seedbed as determined by the contracting officer's technical representative (COTR).

5. Seeding, sprigging, fertilizing, mulching, and stabilizing

All seeding or sprigging operations shall be performed in such a manner that the seed or sprigs are applied in the specified quantities uniformly in the designated areas. The method and rate of seed application shall be as specified in section 7. Unless otherwise specified, seeding or sprigging shall be accomplished within 2 days after final grading is completed and approved.

Fertilizer, lime, and other soil amendments shall be applied as specified in section 7. When specified, the fertilizer and soil amendments shall be thoroughly incorporated into the soil immediately following surface application.

The rate, amount, and kind of mulching or mesh shall be as specified in section 7. Mulches shall be applied uniformly to the designated areas. They shall be applied to areas seeded not later than 2 working days after seeding has been performed. Straw mulch material shall be stabilized within 24 hours of application using a mulch crimper or equivalent anchoring tool or by a suitable tackifier. When the mulch crimper or equivalent anchoring tool is used, it shall have straight blades and be the type manufactured expressly for and capable of firmly punching the mulch into the soil. Where the equipment can be safely operated, it shall be operated on the contour. Hand methods shall be used where equipment cannot safely operate to perform the work required.

The tackifier shall be applied uniformly over the mulch material at the specified rate, or it shall be injected into the mulch material as it is being applied. Mesh or netting stabilizing materials shall be applied smoothly, but loosely on the designated areas. The edges of these materials shall be buried or securely anchored using spikes or staples as specified in section 7.

The contractor shall maintain the mesh or netting areas until all work under the contract has been completed and accepted. Maintenance shall consist of the repair of areas damaged by water erosion, wind, fire, or other causes. Such areas shall be repaired to reestablish the intended condition and to the design lines and grades required by the contract. The areas shall be refertilized, reseeded, and remulched before the new application of the mesh or netting.

6. Measurement and payment

Method 1—For items of work for which specific unit prices are established in the contract, each area treated is measured as specified in section 7 and the area calculated to the nearest 0.1 acre. Payment for treatment is made at the contract unit price for the designated treatment, which will constitute full compensation for completion of the work.

When specified as an item of work, mesh or netting is measured to the nearest square yard of surface area covered and accepted. Payment is made at the contract unit price and will constitute full compensation for completion of the work.

Method 2—For items of work for which specific lump sum prices are established in the contract, the quantity of work will not be measured for payment. Payment for this item is made at the contract lump sum price for the item and will constitute full compensation for the completion of the work.

Method 3—For items of work for which lump sum prices are established in the contract, payment is made as the work proceeds. Progress payments will be determined as specified in section 7. Payment of the lump sum contract price will constitute full compensation for completion of the work.

All Methods—The following provisions apply to all methods of measurement and payment. Compensation for any item of work described in the contract, but not listed in the bid schedule is included in the payment for the item of work to which it is made subsidiary. Such items and the item(s) to which they are made subsidiary are identified in section 7.

7. Items of work and construction details

(See next sheet)

7. ITEMS OF WORK AND CONSTRUCTION DETAILS

Items of work to be performed in conformance with this specification and the construction details therefore are:

a. Subsidiary Item, Permanent Vegetation Seeding

(1) This item will consist of furnishing and applying seed according to the following specifications.

(2) Seeding for permanent cover will be done on all bare areas created by construction activities such as spoil disposal and construction access areas. [redacted] Fertilizer and seed will not be applied to areas that are covered with perennially ponded water.

(3) No seedbed preparation will be required if the construction equipment has produced a scarified surface and the seeding is done the day the areas to be [illegible] equipment has produced a slick surface or seeding [illegible] be prepared by scarifying the soil surface to a depth of one (1) inch. When more than one species of vegetation is required, each species shall be seeded separately. Permanent vegetation seeding will be applied at the following rates:

Seeding Period	Species	Minimum % Pure Live Seed (lb/ac)	Pure Live Seed (1b/ac)
Mar 1 – Aug 31	Common Bermuda grass (hulled) &	83	45
	Brown Top Millet	72	35
[redacted]	[redacted]	[redacted]	[redacted]
[redacted] – Feb 28 Sep1	Common Bermuda grass (unhulled) &	80	20
	Common Bermuda grass (hulled) &	83	20
	Ryegrass	82	35

(4) No separate payment will be made for this item. [redacted]

b. Subsidiary Item, Temporary Seeding

(1) This item will consist of furnishing and applying seed and fertilizer for temporary cover according to the following specifications.

(2) Seeding for temporary cover will be done on spoil to be spread or shaped where spreading or shaping will be delayed 21 days or longer or disturbed

areas where construction activities are not anticipated for 21 days, unless it is determined by the COTR that the cover period will be too short to make seeding practical.

(3) No seedbed preparation will be required if the construction equipment has produced a scarified surface, and the seeding is done the day the areas to be seeded are worked. If the construction equipment has produced a slick surface or seeding is not done the day and areas are worked, a seedbed will be prepared by scarifying the soil surface with a spike-tooth harrow or similar implement to a depth of one inch. Temporary seeding will be applied at the following rates:

Seeding Period	Species	Minimum % Pure Live Seed	Pure Live Seed (1b/ac)
Mar 1 - Aug 31	Brown Top Millet (hulled)	72	35
Sep 1 - Feb 28	Ryegrass	82	35

(4) Fertilizer will be applied according to specifications in section 7.c of this specification.

(5) No separate payment will be made for this item. [redacted]

c. Subsidiary Item, Fertilization

(1) This item will consist of furnishing and applying fertilizer to areas seeded to permanent vegetation according to the following specifications:

Fertilizer will be Ammonium Nitrate, and will contain no less than 33% Nitrogen.

Fertilizer Rate: 200 lbs. per ac.

(2) One application of fertilizer will be applied after the vegetation has emerged. It will be applied no later than 15 calendar days after the COTR has directed an area to be fertilized.

(3) No separate payment will be made for this item. [redacted]

Construction Specification 8—Mobilization and Demobilization

1. Scope

The work consists of the mobilization and demobilization of the contractor's forces and equipment necessary for performing the work required under the contract. It does not include mobilization and demobilization for specific items of work for which payment is provided elsewhere in the contract. Mobilization will not be considered as work in fulfilling the contract requirements for commencement of work.

2. Equipment and material

Mobilization shall include all activities and associated costs for transportation of contractor's personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the contractor's operations at the site; premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable; and other items specified in section 4 of this specification.

Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site; including the disassembly, removal, and site cleanup of offices, buildings, and other facilities assembled on the site specifically for this contract.

This work includes mobilization and demobilization required by the contract at the time of award. If additional mobilization and demobilization activities and costs are required during the performance of the contract as a result of changed, deleted, or added items of work for which the contractor is entitled to an adjustment in contract price, compensation for such costs will be included in the price adjustment for the item or items of work changed or added.

3. Payment

Payment will be made as the work proceeds, after presentation of paid invoices or documentation of direct costs by the contractor showing specific mobilization and demobilization costs and supporting evidence of the charges of suppliers, subcontractors, and others. When the total of such payments is less than the lump sum contract price, the balance remaining will be included in the final contract payment. Payment of the lump sum contract price for mobilization and demobilization will constitute full compensation for completion of the work.

Payment will not be made under this item for the purchase costs of materials having a residual value, the purchase costs of materials to be incorporated in the project, or the purchase costs of operating supplies.

4. Items of work and construction details

(See next page.)

4. ITEMS OF WORK AND CONSTRUCTION DETAILS

Items of work to be performed in conformance with this specification and the construction details therefore are:

a. [redacted], Mobilization and Demobilization

(1) This item shall consist of mobilizing and demobilizing personnel and equipment in preparation to perform the work within the scope of this contract.

(2) Access to the sites may be impeded due to shallow water conditions in the channels and/or existing utilities. The contract shall not be modified to increase the performance time or monetary value as a result of difficulty in accessing these sites due to shallow water conditions or existing utilities. Excavation to increase flotation (draft depth) will be allowed to the limits as shown on the drawings.

(3) Pipelines are located below some of the access channel bottoms. All tugboats and barges will be loaded in a manner to ensure that they float at all times. Excavation or wheel washing will not be allowed within any pipeline Right-of-Way as stated in the Special Provisions and as shown on the plans.

(4) This item shall include both:

(a) Mobilizing and demobilizing equipment and operating supplies to the general work area in this contract

(b) Mobilizing and demobilizing equipment and operating supplies between each of the specific construction sites specified by this contract.

This item shall not include the movement of personnel and supplies within the work sites associated with the daily operation of the contractor's work force.

(5) Payment shall be as specified in Section 3. Such payment will be considered full compensation for this item.

Construction Specification 205—Embankment Repair

1. Scope

The work shall consist of constructing, shaping and dressing the embankment to the lines and grades shown on the drawings.

2. Access

Access shall be as shown on the site map or as designated by the contracting officer unless alternate routes are obtained by the contractor and approved by the contracting officer. All access routes shall be restored by the Contractor to the condition prior to the commencement of work under this contract.

3. Limits of Work

The limits of the damaged area at each site will be referenced to identified roads or other structures or landmarks or be marked by the contracting officer by means of stakes, flags, or

4. Materials

Material required to construct and shape the embankment shall be obtained from excavation within the borrow area as shown on the drawings or hauled as specified in Section 7 of this specification.

5. Placement

The embankment material shall be deposited in approximate 12" horizontal layers and compacted to the final grade. Compaction will be as specified in Section 7 of this specification.

6. Measurement and payment

For items of work for which specific lump sum prices are established in the contract, payment for embankment construction will be made at the lump sum price. Such payment will constitute full compensation for all labor, materials, equipment and all other items necessary and incidental to the performance of the work.

Compensation for any item of work described in the contract but not listed in the bid schedule will be included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in Section 7 of this specification.

7. Items of work and construction details

(See next page.)

7. Items of work and construction details

Items of work to be performed in conformance with this specification and the construction details therefor are:

a. Bid Item - Embankment Repair

(1) This item shall consist of clearing the embankment and berms, grubbing and shaping areas for earthfill and excavation, furnishing and placing the earthfill to repair the embankment at the locations and to the lines and grades shown on the drawings.

(2) Before any earthfill is placed onto the existing embankment for compaction, the surface of the existing embankment shall be scarified and all vegetative matter removed to a depth of six (6) inches. The area of embankment to be repaired will be grubbed and shaped. All areas to receive fill will be sloped to a 2:1 side slope or flatter before placement of fill.

(3) Fill material will be hauled in from off site, and shall be approved by the COTR prior to placement.

(4) Fill material will be bucket compacted in lifts not to exceed 12 inches over the entire surface in areas shown on the drawings. Care shall be taken not to over compact the fill. The finished grade of the fill shall be dressed and will be as shown on the typical section and blend into the adjacent undisturbed areas.

(5) Areas, including access roads, berms, and existing levee that are damaged during construction will be repaired to original condition.

(6) Contractor shall use low ground pressure equipment in order to minimize the amount of damage to the existing embankment. Any damage will be repaired at the contractor's expense.

(7) Construction site shall be cleaned up upon completion of work. All debris from clearing operations will be stacked on the marsh side of the embankment.

(8) All disturbed areas will be seeded according to Construction Specification 6.

(9) Measurement and Payment will be as stated in 6 of this specification. Such payment will constitute full compensation for related Subsidiary Items, Clearing and Grubbing, Pollution Control, Seeding Sprigging and Mulching.