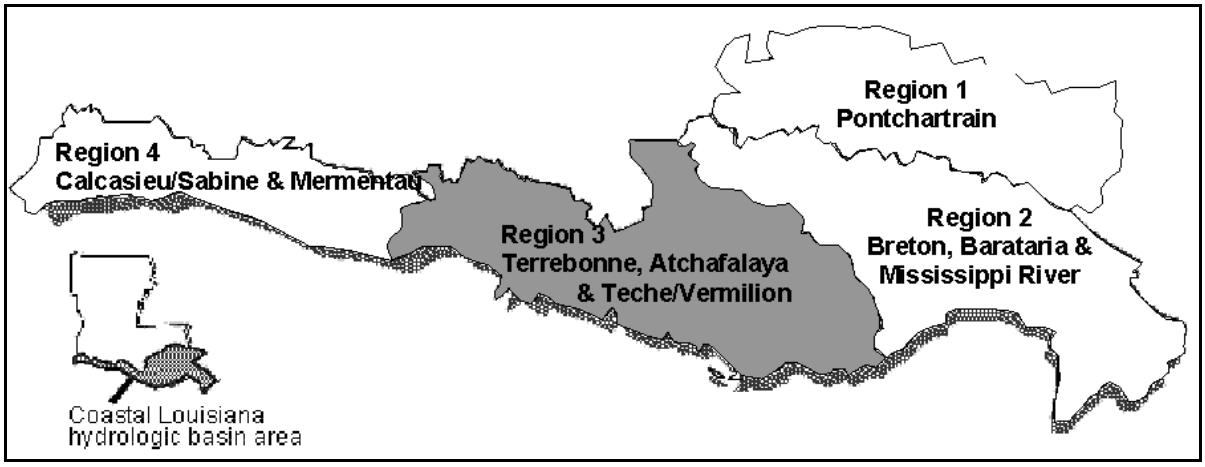
REGION 3



INTRODUCTION

Region 3 encompasses the Terrebonne, Atchafalaya, and Teche-Vermilion basins. It extends from Bayou Lafourche on the east, to Freshwater Bayou on the west, and south from the Gulf of Mexico north to the boundary of coastal wetlands. It covers all or part of the following parishes: Lafourche, Terrebonne, Assumption, Iberville, St. Martin, Iberia, St. Mary, Lafayette, and Vermilion.

This region covers 1,078,800 acres of vegetated wetlands. These wetlands are classified as approximately 368,550 acres of cypress and bottomland forests, 298,300 acres of fresh marshes, 92,700 acres of intermediate marshes, 240,700 acres of brackish marshes, and 140,200 acres of saline marshes.

Estimates of land loss from Region 3 indicate that between 1932 and 1990, a total of 247,650 acres of wetlands have been lost (an average of 4,270 acres per year). More recent estimates from 1978 to 1990 indicate that the wetland loss rate was even higher during this shorter time period and averaged 6,912 acres per year.

The central and eastern portions of the Terrebonne Basin have experienced extensive losses of fresh and brackish marshes. Altered hydrology and an intermediate to high natural subsidence rate have led to excessive flooding in these wetlands, which impairs plant health and productivity and ultimately results in marsh loss. Shoreline erosion along the fringes of bays and large lakes has also contributed to the basin's significant land loss. Wetland loss in the western portion of the Terrebonne Basin is less severe, and is primarily attributed to excessive marsh inundation and ponding of water.

The Atchafalaya Basin includes Atchafalaya Bay and adjacent marshes to the north. This is a very important area for wildlife because it is the site of active delta building, which naturally builds new habitat. This area includes the Wax Lake Delta, the Atchafalaya Rive delta, and the "Jaws", a smaller delta.

The Teche/Vermilion Basin extends from Point Chevreuil to Freshwater Bayou and includes the fresh to brackish East and West Cote Blanche bays and Vermilion Bay.

Throughout Region 3, shoreline erosion has been severe along large lakes and bays. Generally, there is support both from parish governments and the public in Region 3 to maintain present habitats in areas above the GIWW, and restore habitats in areas below the GIWW.

Coast 2050 identified specific ecosystem strategies for protecting and sustaining the region's coastal resources (Figure 9). These specific ecosystem strategies can be grouped into one of the

following five general categories: restoring swamps; restoring and sustaining marshes; protecting bay, lake, and Gulf shorelines; restoring barrier islands; and maintaining brackish conditions in the Vermilion, West Cote Blanche, East Cote Blanche bay complex, while reducing turbidity and sedimentation.

PROJECT INFORMATION

A total of 134 restoration projects have been authorized for Region 3 (Table 3). Project specific information is presented below, organized by project funding source.

BREAUX ACT

A total of 46 projects have been authorized under the direction of the Breaux Act in Region 3, which are anticipated to benefit 23,377 acres of wetlands at a cost of $168,873,491. One project was constructed under the Breaux Act in Region 3 this year: Oaks/Avery Canal Hydrologic Restoration, Increment I (TV-13a).

Eight projects in Region 3 address imminent marsh loss due to changes in natural hydrology. Three of these projects focus on restoring marsh habitat by rerouting available freshwater into a watershed lacking adequate freshwater input. The Brady Canal Hydrologic Restoration (TE-28) project was constructed in 2000, and both South Lake DeCade Freshwater Introduction (TE-39) and Atchafalaya Water to Central Terrebonne (TE-42) projects are currently in the design phase. Other projects, such as the Penchant Basin Plan without Shoreline Stabilization, Increment 1 (TE-34a) and Lake Chapeau Sediment Input and Hydrologic Restoration (TE-26) are designed to restore a more natural hydrology through the installation of weirs and other water control devices. Both projects were constructed in 1999.

Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management Alternative B (TE-32a), a combination freshwater diversion/hydrologic restoration project, will reduce saltwater intrusion and promote vegetation diversity. Similarly, Grand Bayou/GIWW Freshwater Diversion (TE-10) will maintain emergent wetlands by providing supplemental freshwater, nutrients, and sediment from the Atchafalaya River. These projects are currently in the design phase.

The beneficial use of dredged material project, West Belle Pass (TE-23), was constructed in 1998 and created 184 acres of wetlands in areas that had deteriorated to open water. The Atchafalaya Sediment Delivery (AT-02) and Big Island Mining (AT-03) projects were also constructed in 1998 to enhance natural deltaic growth processes. The authorized Castille Pass Sediment Delivery (AT-04) will also create new wetland habitat in the Atchafalaya River Delta.

The five barrier island restoration projects constructed in Region 3 are East Island (TE-20), Trinity Island (TE-24), Whiskey Island (TE-27), and East Timbalier Island Phase I (TE-25) and Phase II (TE-30). Preliminary monitoring of both Phase I and II of the East Timbalier Island restoration project has indicated an increase in dune and supratidal habitat one year following the completion of construction. Combined, these five projects created an additional 590 acres of barrier island habitat. The New Cut Dune/Marsh Restoration (TE-37) project, approved for construction, will reconnect East and Trinity islands by closing the breach that was originally created by Hurricane Carmen. Additionally, the Timbalier Island Dune/Marsh Restoration (TE-40) project, which is currently in the design phase, is intended to restore the rapidly deteriorating eastern end of Timbalier Island by direct creation of dunes and marshes. The Ship Shoal: Whiskey West Flank Restoration (TE-47) project will restore habitat in Whiskey Pass and on the west flank of Whiskey Island through the deposition of material dredged from Ship Shoal.

The Raccoon Island (TE-29) project, a demonstration project constructed in 1997, utilized segmented rock breakwaters on the Gulf of Mexico side of the island to protect the

island from wave-induced erosion and to trap water-borne sediments. Beach profile analyses during the first year indicate that the shoreline erosion rate was reduced between the breakwaters, and that substantial shoreline progradation occurred behind all but two of the eight breakwaters. Sediment accumulated an average of 8.5 cubic yards per linear foot of shoreline during this time period. More recent data suggest that shoreline erosion no longer occurs immediately behind the breakwaters.

Twelve shoreline protection projects were authorized within Region 3. Construction is complete on the following five projects: Point au Fer Canal Plugs (TE-22), Vermilion River Cutoff (TV-03), Boston Canal (TV-09), Lake Portage Land Bridge Phase I (TV-17), and Weeks Bay/ Commercial Canal (TV-19). The date of construction is still pending for Mandalay Bank Protection Demonstration (TE-41), Freshwater Bayou Belle Isle to Lock (TV-11b), GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43), North Lake Mechant Landbridge Restoration (TE-44), Terrebonne Bay Shore Protection and Oyster Reef Lake Athanasio Demonstration (TE-45), and West Lake Boudreaux Shoreline Protection and Marsh Creation (TE-46). The Raccoon Island Shoreline Protection/Marsh Creation (TE-48) project is designed to protect the Raccoon Island rookery and seabird colonies from an encroaching shoreline, through the construction of an additional eight segmented breakwaters west of the constructed Raccoon Island Breakwaters Demonstration (TE-29) project.

All projects, with the exception of the demonstration projects, utilize rock structures and/or vegetation to reduce the wave energy reaching the shoreline, thereby reducing shoreline erosion. The rock revetments at Boston Canal (TV-09) have not only stopped shoreline erosion, but have accumulated approximately 4.5 feet of sediment. This deposition of material has resulted in the establishment of vegetated wetlands immediately behind the rock structures.

The four sediment trapping projects in Region 3 are Little Vermilion Bay (TV-12), Sediment Trapping at the Jaws (TV-15), Four Mile Cut/Little Vermillion Bay (TV-18), and the Chenier Au Tigre Sediment Trapping Demonstration (TV-16). These projects incorporate barriers which capture and hold both sediment and nutrients, and decrease water velocity, thereby facilitating marsh building processes. Little Vermilion Bay (TV-12) was constructed in 1999, and monitoring has been initiated. The Chenier Au Tigre Sediment Trapping Demonstration was completed in 2000 and will test the effectiveness of four sediment trapping devices.

Two vegetation planting projects have been constructed in Region 3. The Falgout Canal Plantings (TE-17), completed in 1997, and Timbalier Plantings (TE-18), completed in 1996, utilized vegetation along the shoreline in an effort to minimize shoreline erosion. Falgout Canal (TE-17) also utilized wave-damping structures to decrease wave-induced stress on the plants, while the Timbalier Plantings (TE-18) utilized sand fencing to trap wind-born sand.

The Thin Mat Floating Marsh Enhancement (TE-36) demonstration project was constructed in 2000 and will evaluate the effectiveness of various techniques (ie. wetland vegetation, plugs, and fertilizers) on the creation and enhancement of thin floating mats of marsh.

The Breaux Act Task Force officially deauthorized four projects in Region 3: Lower Bayou LaCache (TE-19), Flotant Marsh Fencing Demonstration (TE-31), Bayou Boeuf Pump Station (TE-33), Marsh Creation East of the Atchafalaya River, Avoca Island (TE-35).

STATE

Twelve projects in Region 3, implemented by the CRD and funded by the Wetlands Trust Fund, are projected to benefit an estimated 5,199 acres of land at a cost of $11,362,932.

Four marsh management projects have been constructed in Region 3. Currently, rehabilitation plans are being developed for

Montegut Wetland (TE-01), Falgout Canal Wetland (TE-02), and Bayou LaCache (TE-03) in order to evaluate project effectiveness and to recommend improvements, if necessary. Marsh Island Control Structures (TV-06), another marsh management project, was designed to improve habitat for waterfowl by installing flap-gated culverts and earthen canal plugs.

The four shoreline protection projects are Yellow Bayou (TV-02b), Freshwater Bayou Bank Protection (TV-11), Oaks/Avery Canal (TV-13), and Quintana Canal/Cypremort Point. All were constructed between 1992 and 2000.

Lower Petit Caillou (TE-07b), a hydrologic restoration project, was constructed in 1995 to decrease saltwater intrusion into the project area.

Spoilbank along GIWW, a state-funded vegetation planting project, was implemented in 1993. A total of 1,600 trees were planted (800 black willow, *Salix nigra*, and 800 bald cypress, *Taxodium distichum*) to reduce bank erosion. The effectiveness of various nutria exclusion devices were also tested. Point Farm Refuge Planting (TE-14), another state-funded vegetation project, was constructed in 1995 to create bottomland hardwood forests in former farmlands.

PARISH COASTAL WETLANDS RESTORATION PROGRAM

In Region 3, the following eight Christmas tree projects were maintained in 2001: Weeks Island at GIWW, Pelican Point/Shark Island, Atchafalaya River Delta, Hammock Lake, GIWW near Hanson Canal, Shark Bayou, Vermilion Bay and Rainey Wildlife Refuge, and sites in St. Martin Parish. These projects include approximately **5,316** linear feet of active fences. Monitoring data from the Hammock Lake Christmas tree project indicate that over 660 cubic yards of sediment accumulated in the project area just three years after construction.

DNR/NRCS/SWCC VEGETATION PLANTING PROGRAM

Since 1988, a total of 60 vegetation planting projects have been implemented in Region 3. Several phases, which span over several years, exist for many of the planting projects. The Vegetation planting projects that were constructed in 2002 in Region 3 are Bayou Folse, Grand Bayou, Lake Boudreaux, Bayou Colyell, GIWW Cypress Restoration, Falgout Canal Flotant, Union Oil Canal, GIWW Delcambre, Avoca Island, Gray Duck Hole, Treyne, Boy Scout Camp, Delcambre Terrace Demo, and Vermilion Maintenance.

SECTION 204/1135

Within Region 3, one section 204/1135 project was constructed in 1991, and one will be constructed in 2002. The Wine Island Restoration project, constructed in 1991, rebuilt the island with the use of dredged material. The Houma Navigation Canal, Wine Island Barrier Island Restoration project, expected to be constructed in late 2002, will investigate the feasibility of beneficially using the dredged material from the bar channel area to create 50 acres of wetlands in deteriorated marshes and open water areas.

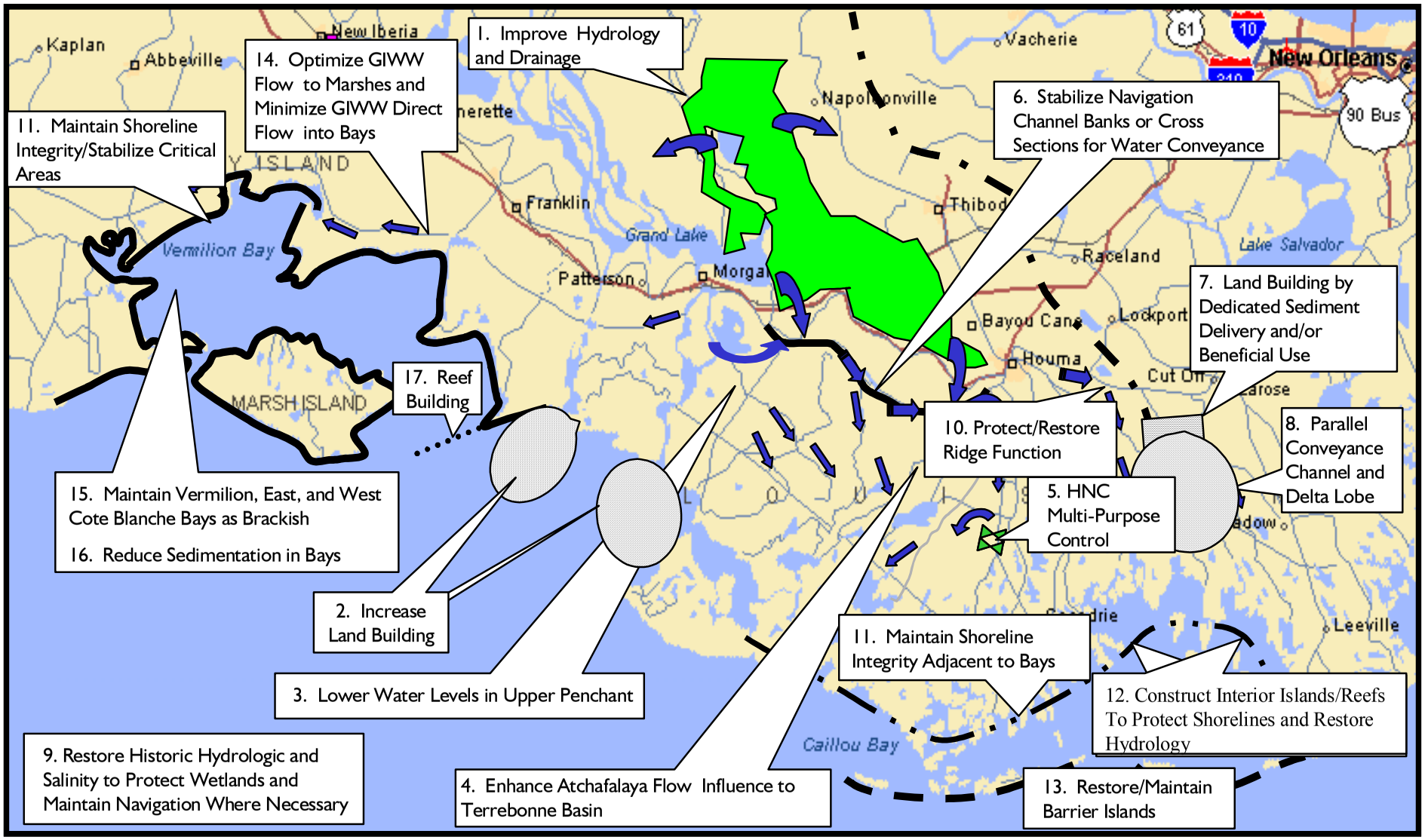


Figure 9. Coast 2050 Region 3 ecosystem strategies.

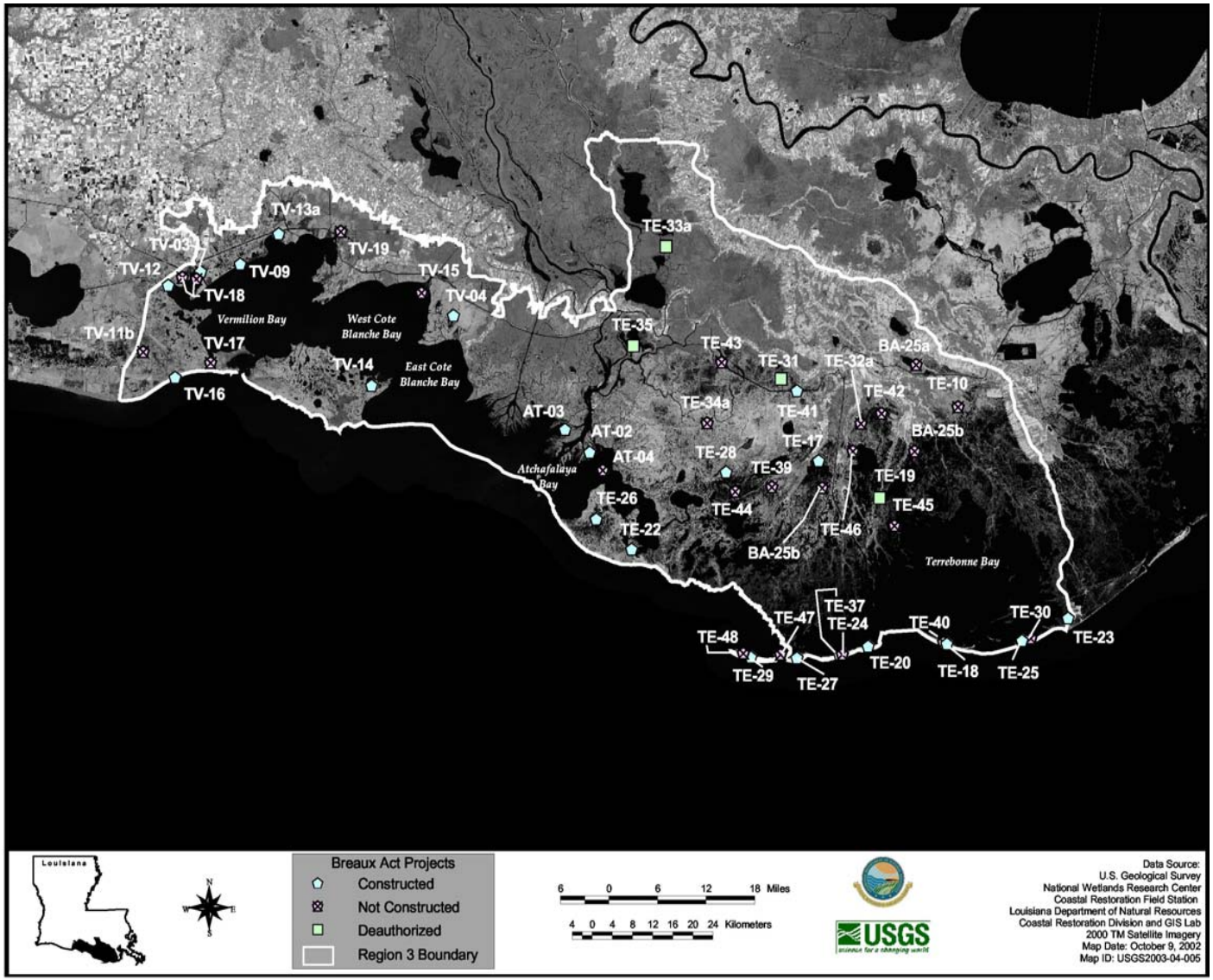


Figure 10. Location of Breaux Act projects authorized in Coast 2050 Region 3.

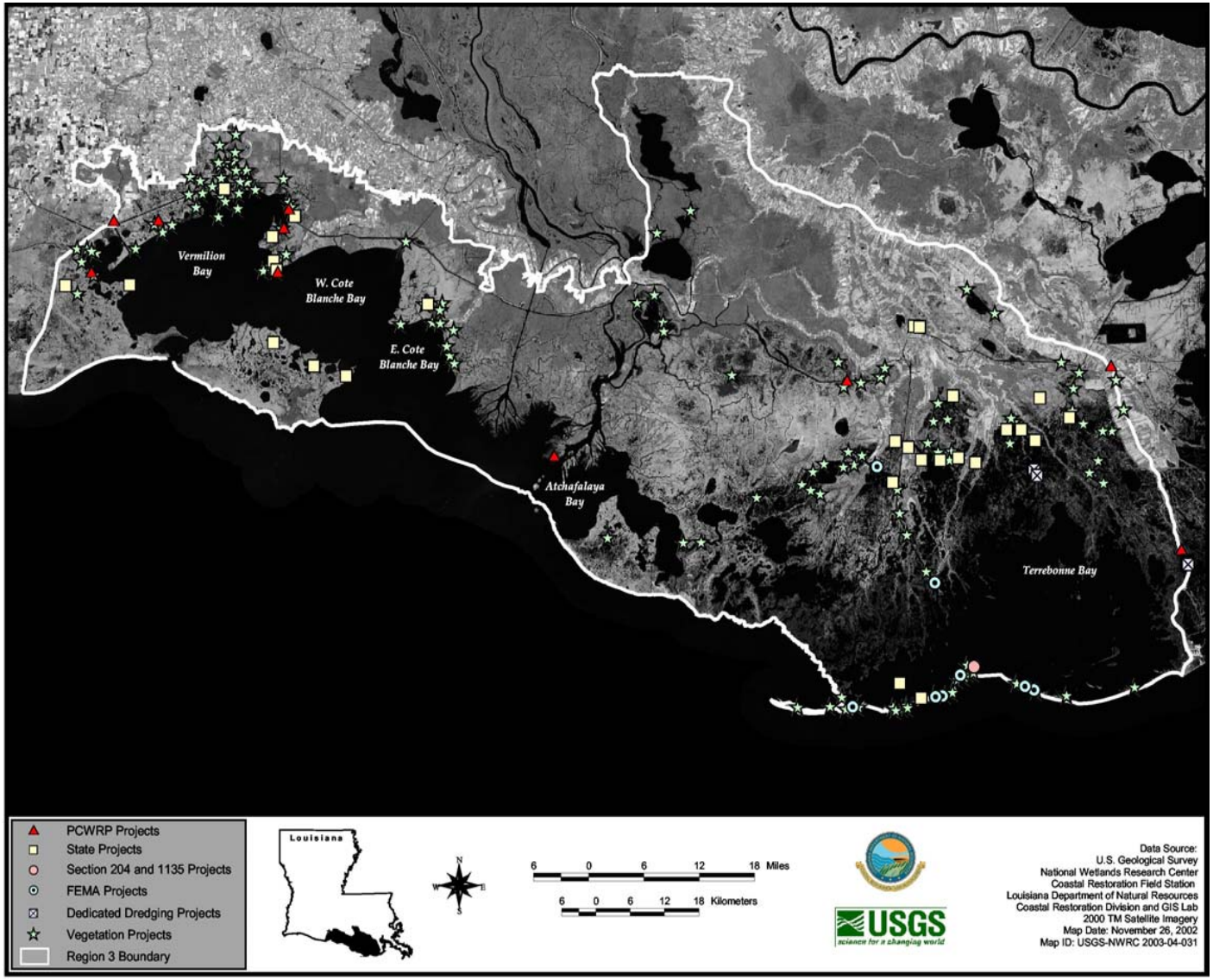


Figure 11. Location of PCWRP, State, Section 204 and 1135, Vegetation, Dedicated Dredging and FEMA projects in Coast 2050 Region 3.

Table 3. Restoration projects completed or pending in Coast 2050 Region 3.

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act	AT-02 (PAT-2)	Atchafalaya Sediment Delivery	SD/ DM/ MC	2	NMFS	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	2,232	C $202,712	1998 $1,691,109	I $665,202	$907,810 $2,559,023
		This project was authorized to enhance natural delta growth, which has been reduced as a result of maintenance dredging of the Atchafalaya River navigation channel. This was achieved by re-opening Natal Channel and Radcliff Passes to restore freshwater and sediment delivery to the East Delta lobe of the Atchafalaya River Delta. The channels were cut to 90 feet wide, six feet deep, and 6,300 feet long, and construction was completed in March of 1998. Dredged material was pumped onto the adjacent marsh and shallow mudflats to increase marsh elevation and create new marsh. Evaluation of monitoring data indicated that only 70 of the projected 432 acres of marsh were created from the initial deposition of dredge material; however, this is twice the rate of land that was created naturally within the previous four years. Additionally, the majority of the created habitat was forested wetland instead of marsh, indicating that sediment elevations were too high.										
	AT-03 (XAT-7)	Big Island Mining	SD/ DM/ MC	2	NMFS	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith, C. B. Dartez	St. Mary	1,560	C $555,682	1998 $6,379,455	I $615,766	$4,136,057 $7,550,903
		Construction of the project ended September 20, 1997. A total of 7,510,088 cubic yards of dredge material was placed to create five disposal areas. Habitat mapping of 1998 aerial photography, taken immediately following construction, showed that the project created 157 acres. Of the 157 acres created, 106 were classified as scrub-shrub and 51 as fresh marsh. Elevation of the two intensively studied disposal areas ranged from approximately 0.5 feet to 4.0 feet (NAVD 88), which is nearly 2 feet higher than most naturally created islands in the Atchafalaya Delta. Due to the quick colonizing of black willow (*Salix nigra*), the areas classified as scrub-shrub have grown, and large portions of the project could now be considered forested wetland.										
	AT-04 (XAT-11)	Castille Pass Channel Sediment Delivery	MC/ SNT	9	NMFS	Sen. D.A. "Butch" Gautreaux, R. P. Dupre, Jr. Rep. Jack D. Smith, C. B. Dartez	St. Mary	589	NI $1,809,682	No Date $0	NI $46,110	$1,484,633 $1,855,792
		Castille Pass will be dredged to allow for the eastern flow of the Atchafalaya River to enhance natural deltaic creation and marsh building. Four smaller tributary channels will also be constructed and the dredged sediment will be used to create deltaic lobes at marsh elevation.										
	TE-10 (XTE-49)	Grand Bayou/GIWW Freshwater Diversion	FD	5	USFWS	Sen. Reggie P. Dupre, Jr. Rep. Loulan Pitre, Jr., D. J. Baldone	Lafourche	1,808	I $301,868	No Date $2,145,846	I $4,270,047	$5,135,468 $8,209,722
		The objective of the project is to maintain emergent wetlands in this area by providing supplemental freshwater, nutrients, and some mineral sediment from the Atchafalaya River via the GIWW. Restriction of the Cut Off Canal will reduce saltwater intrusion and retain freshwater, and the deepening of a portion of Bayou L'eau Bleu will provide for increased freshwater input. The USACE has developed a hydrologic model for this project to predict responses to the proposed hydrologic alterations.										
	TE-17 (TE-17)	Falgout Canal Plantings Demonstration	VP	1	NRCS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	N/A	C $24,100	1997 $90,000	I $90,879	$144,561 $204,979
		Smooth cordgrass *(Spartina alterniflora)* was planted along the northern bank of Falgout Canal to prevent the canal shoreline from breaching and exposing the interior marshes to boat wakes. Additionally, six different types of wave dampening structures were constructed to protect the vegetation plantings. The project has been completed and monitoring results indicated that plantings were a failure due to the duration of flooding, and that the wave dampening structures did not reduce erosion rates alone.										

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities: Engineering, Design, and Landrights	Activities: Construction	Activities: Operation, Maintenance, and Monitoring	Original Baseline Cost (top) and Current Cost Estimate (bottom)
Breaux Act (continued)	TE-18 (TE-18)	Timbalier Island Planting Demonstration	VP	1	NRCS	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	N/A	C $24,100	1996 $311,200	I $97,558	$372,589 $432,858
		Vegetation suited to the salinity and habitat of the barrier island was planted and sand fencing was constructed along several overwash areas to decrease wind-induced erosion, increase emergent vegetation cover, increase elevations in the vicinity of the sand fencing, and demonstrate the effectiveness of these management approaches in mitigating barrier island erosion. Results indicated that fences, in fact, build dunes, and vegetation colonized the areas; however, once waves reached the fences, dunes were quickly washed away and fences were destroyed. Observations indicated that dunes did not rebuild again, and that fences need to be maintained in future dune building projects.										
	TE-19 (TE-19)	Lower Bayou LaCache Hydrologic Restoration	MM	1	NMFS	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	N/A	$93,304	Deauthorized $0	$6,321	$1,694,739 $99,625
		The project was originally authorized to reduce marsh loss and restore the area by retaining freshwater and limiting saltwater influx. Because of problems with landrights and navigation, the project was officially deauthorized by the Breaux Act Task Force in February of 1996.										
	TE-20 (TE-20)	Eastern Isles Dernieres, East Island	BI	1	EPA	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	9	C $386,117	1999 $7,847,564	I $511,530	$6,345,468 $8,745,210
		This project was authorized to rebuild and extend the life-expectancy of East Island, a barrier island in the Isles Dernieres chain, in Terrebonne Parish. Approximately 3,925,000 cubic yards of sand were dredged from adjacent waters and were used to build a retaining dune which was then hydraulically filled to create an elevated marsh platform sloping from the dunes to +4.0 feet at the bay side of the island. Sand fences and vegetation were also installed to stabilize the sand and minimize wind-driven transport. Construction was complete in July of 1999. Initial monitoring indicated that fences have built dunes, and that vegetation survival was high (>70%) after one growing season; however, the current cover of vegetation on the bare sand is low (<20%), where initially planted. This indicates that an alternate planting design needs to be considered in future projects to maximize cover of bare sediment faster.										
	TE-22 (PTE-22/24)	Point Au Fer Canal Plugs	SP/HR	2	NMFS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	375	C $242,270	1997 $2,105,131	I $562,262	$1,069,589 $2,909,663
		This project involves plugging a number of canals and the stabilizing of Mobil Canal-Gulf of Mexico breach to prevent saltwater intrusion into the interior of the island. Plugs were installed at strategic locations and the shoreline was armored along stretches vulnerable to breaching and overtopping during storms to reduce marsh loss and the potential for saltwater intrusion. Initial monitoring data indicates that the project has not reduced canal erosion rates.										
	TE-23 (PTE-27)	West Belle Pass Headland Restoration	DM/ SP	2	USACE	Sen. Reggie P. Dupre, Jr. Rep. Loulan Pitre, Jr.	Lafourche	474	C $983,526	1998 $4,443,192	I $598,449	$4,854,102 $6,751,441
		This project involved utilizing dredged material from maintenance dredging of Bayou Lafourche, installing several water control devices, and armoring approximately 17,000 feet of shoreline to protect a deteriorated wetland area adjacent to Belle Pass and Bayou Lafourche, to address site-specific wetland loss. The project utilized approximately 1,400,000 cubic yards of dredged material from Bayou Lafourche to rebuild approximately 184 acres of wetland on the west side of Belle Pass. Dredging was completed in June of 1998; however, the area was damaged by marsh buggies during project construction. Mitigation is pending and the project will not be fully accepted by DNR and the USACE until mitigation is implemented. Monitoring has been initiated, and the rock structure along Bayou Lafourche has stopped shoreline erosion as expected.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act (continued)	TE-24 (XTE-41)	Eastern Isles Dernieres, Trinity Island	BI	2	EPA	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	109	C $425,112	1999 $10,202,790	I $157,804	$6,907,897 $10,785,706
		This project was authorized to rebuild and extend the life-expectancy of Trinity Island, a barrier island in the Isles Dernieres chain, expected to be lost by the year 2007 without restoration. Approximately 4,850,000 cubic yards of sand were dredged from adjacent waters and were used to build a retaining dune which was then hydraulically filled to create an elevated marsh platform sloping from the dunes to +4.0 feet at the bay side of the island. Sand fences and vegetation were also installed to stabilize the sand and minimize wind-driven transport. Construction was complete in July 1999. Initial monitoring indicated that fences have successfully built dunes and vegetation survival 1 growing season after planting was high (>80%); however, cover of bare sand planted areas was low (<30%), indicating alternate planting designs need to be considered in future projects to maximize cover of bare sediment faster.										
	TE-25 (XTE-67)	East Timbalier Island Restoration Phase I	BI	3	NMFS	Sen. Reggie P. Dupre, Jr. Rep. Loulan Pitre, Jr.	Lafourche	1,913	C $445,785	2000 $3,452,307	I $142,636	$2,046,971 $4,040,728
		The objective of the project is to increase the size and life expectancy of the island. This is the first of two projects approved to enhance East Timbalier Island. This phase involves the dredging of sand from submerged areas near the island and pumping that material to create dune and intertidal wetland habitats at three locations on the island which are extremely narrow and subject to storm overwash and breaching. Construction was completed in May 2001 and monitoring has been initiated.										
	TE-26 (PTE-23/26a/33)	Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	HR/MC	3	NMFS	Sen. Reggie P. Dupre, Jr., D. A. "Butch" Gautreaux Rep. Carla Blanchard Dartez, J. D. Smith	Terrebonne	509	C $666,291	1999 $3,800,199	I $1,177,832	$4,149,182 $5,644,322
		This project was authorized to A) restore interior marsh hydrology and B) to protect localized regions of Point au Fer Island from imminent loss. The project components include the reestablishment of a hydrologic separation of the island's two major watersheds utilizing dredge material from Atchafalaya Bay and the restoration of the island hydrology by plugging oil field access canals and gapping artificial spoil banks to restore natural hydrologic pathways (i.e., improve marsh sheetflow and flow through natural bayous). Construction was complete in August 1999. Monitoring data indicated that vegetation plantings have been successful and created marsh on a large portion of the dredge fill area. Hydrologic data is still being evaluated.										
	TE-27 (PTE-15bi)	Whiskey Island Restoration	BI	3	EPA	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Lafourche	1,239	C $595,424	1999 $6,986,449	I $139,313	$4,844,274 $7,721,186
		This project was authorized to rebuild and extend the life-expectancy of Whiskey Island, a barrier island in the Isles Dernieres chain, expected to be lost by the year 2007 without restoration. Approximately 2,852,875 cubic yards of sand were dredged from adjacent waters and were used to build a retaining dune which was then hydraulically filled to create an elevated marsh platform sloping from the dunes to +4.0 feet at the bay side of the island. Vegetation was also installed to stabilize the sand and minimize wind-driven transport. Construction was complete in July 1999. Initial monitoring indicated that vegetation survival 1 growing season after planting was very low (<30%). Additionally, cover of bare sand planted areas was low (<15%), indicating alternate planting designs need to be considered in future projects to maximize cover of bare sediment faster. Elevation models from surveys indicate volume loss of sediment 1.5 years after deposition of >21,600 cubic yards of sediment from wind and overwash events indicating the need for sand fencing soon after construction.										
	TE-28 PTE-26b)	Brady Canal Hydrologic Restoration	HR	3	NRCS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	297	C $312,500	2000 $2,921,300	I $2,428,376	$4,717,928 $5,662,176
		This project will restore interior marsh hydrology by replacing outdated and ineffective water control structures, installing new controls on existing canals, and protecting the shoreline along Superior Canal, Jug Lake, and Bayou DeCade. This will enhance freshwater, sediment and nutrient delivery to the project area from Bayou Penchant. Construction was completed in April of 2000 and monitoring has been initiated.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities: Engineering, Design, and Landrights	Activities: Construction	Activities: Operation, Maintenance, and Monitoring	Original Baseline Cost (top) and Current Cost Estimate (bottom)
Breaux Act (continued)	TE-29 (PTE-15-vii)	Raccoon Island Breakwaters Demonstration	BI	5	NRCS	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	N/A	C $200,482	1997 $1,373,569	I $214,133	$1,497,538 $1,788,184
		Eight detached, segmented breakwaters were constructed along the eastern end of the island to reduce the rate of shoreline retreat, promote sediment deposition along the beach, and protect seabird habitat. Breakwaters are 300 feet long and 10 feet wide at the crown. The project was initiated to evaluate the use of a segmented breakwater as a means to reduce the rate of barrier island erosion. The project has successfully met its goal of reducing shoreline erosion and increasing land coverage. Additional state funds are being expended to investigate the success of the project, and to develop a model which will allow better design of other breakwater projects along the coast.										
	TE-30 (XTE-45/67b)	East Timbalier Island Restoration, Phase 2	BI	4	NRCS	Sen. Reggie P. Dupre, Jr. Rep. Loulan Pitre, Jr.	Lafourche	215	C $905,521	No Date $12,714,453	I $145,041	$5,752,404 $13,765,015
		This is the second of two projects that have been approved to enhance and extend the life expectancy of East Timbalier Island. Dredged material was placed from the center of the island to approximately 6,000 feet eastward at a width of approximately 935 feet. Due to a much higher than anticipated cut-to-fill ratio, hydraulic dredging was halted with only 45% of the planned fill area completed. Options are being investigated for completion of the project.										
	TE-31 (XTE-54b)	Flotant Marsh Fencing Demonstration	SP	4	NRCS	Sen. D. A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	Terrebonne	N/A	 $96,584	Deauthorized $0	 $10,254	$367,066 $106,839
		This project was authorized to conserve and restore floating marshes by utilizing fences constructed across levee breaks as an alternative to depositing fill material or installing water control structures. The restoration techniques that were originally suggested for this project were not feasible. The project was officially deauthorized by the Breaux Act Task Force in October of 2001.										
	TE-32a (TE-7f)	Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management, Alternative B	FD/ HR	6	USFWS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez, D. J. Baldone	Terrebonne	619	I $961,357	No Date $5,453,945	I $4,104,081	$9,831,306 $10,519,383
		The purpose of the project is to reduce saltwater intrusion and promote vegetation diversity by routing available freshwater from the north through the project area to the south. This project has a dredging component that will facilitate freshwater distribution. Sluice gates will also be constructed under Louisiana Hwy 57 and several outfall management structures to allow for drainage and reduce ponding of water.										
	TE-33 (XTE-32i)	Bayou Boeuf Pump Station	HR	6	EPA	Sen. D.A. "Butch" Gautreaux, J. T. Chaisson II, C. F. Romero Rep. Jack D. Smith, C. B. Dartez, H. Downer, W. J. Triche, Jr., E. Devillier	St. Mary	N/A	 $3,452	Deauthorized $0	 $0	$150,000 $3,452
		This project was intended to develop information and recommend project features for protection and restoration in the Verret Basin. A critical aspect of the effort was to be public scoping/involvement at a cost of $500,000. The federal sponsor, in concurrence with the State, requested that the project be deauthorized based on the belief that the project's objectives may be more appropriately achieved through the USACE Lower Atchafalaya Re-evaluation Study through the review of flood control projects. The project was officially deauthorized by the Breaux Act Task Force in July of 1998.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act (continued)	TE-34a (PTE-26i)	Penchant Basin Natural Resources Plan, Increment I	HR	6	NRCS	Sen. D.A. "Butch" Gautreaux, R. P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	1,155	I $1,669,054	No Date $9,723,048	NI $2,710,949	$14,103,051 $14,103,051
		Hydrologic restoration of the Penchant Bayou Basin will include dredging and marsh creation, the construction of weirs and plugs, and maintenance to existing weir structures. This project will combine long-term realignment of Penchant Basin hydrology with restoration and protection measures aimed at maintaining the physical integrity of the area during the transition toward greater riverine influence.										
	TE-35 (CW-5i)	Marsh Creation East of the Atchafalaya River, Avoca Island	MC	6	USACE	Sen. D. A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	St. Mary/ Terrebonne	N/A	$66,425	Deauthorized $0	$443	$6,438,400 $66,868
		The project involved the beneficial use of dredged material from the Crew Boat Chute reach of the Atchafalaya River for marsh creation in the Avoca Island area. Although the project would have benefitted 434 acres at a cost of $6,438,400, the cost of the project was estimated to be considerably higher than originally planned making it economically unjustifiable. The Federal Sponsor, in concurrence with the State, had requested that the project be deauthorized. The project was officially deauthorized by the Beaux Act Task Force in July of 1998.										
	TE-36 (CW-DEMO)	Thin Mat Floating Marsh Enhancement Demonstration	MC	7	NRCS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	N/A	C $52,645	2000 $18,000	I $471,925	$460,222 $542,570
		This demonstration project will evaluate techniques to create and enhance thin floating mats of marsh, as well as the effects of water movement and sediment on these marshes. This project is designed to induce the development of thick, continually floating mats from a thin-mat floating marsh by using plugs of wetland vegetation and fertilizers. Construction was completed April of 2000. Initial observations indicated that maidencane (*Panicum hemitomon*) transplants only survive when protected from herbivory and that fertilizer increased nutrient concentrations in both plant tissues and interstitial substrate water.										
	TE-37 (TE-11a)	New Cut Dune and Marsh Creation	BI/MC	9	EPA	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	102	C $1,141,920	2003* $9,161,771	NI $214,448	$7,393,626 $10,518,139
		The objective of this project is to close the breach between East and Trinity Islands, that was originally created by Hurricane Carmen. The project will create dune and marsh habitat, and lengthen the structural integrity of the eastern Isles Dernieres by restoring the littoral drift and adding sediment into the near-shore system. This project has been approved for Phase II funding.										
	TE-39 (PTE-28)	South Lake DeCade Atchchafalaya Freshwater/ Sediment Introduction	HR	9	NRCS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	201	NI $406,429	No Date $0	NI $89,182	$396,489 $495,611
		This project includes the construction of a water control structure in the southern bank of the lake. This will increase the amount of Atchafalaya River water and sediment introduced into the marshes south of Lake DeCade. In addition, shoreline protection will be implemented adjacent to the proposed structure, and a weir in Lapeyrouse Bayou will be replaced.										
	TE-40 (XTE-45a)	Timbalier Island Dune/Marsh Creation	BI/MC	9	EPA	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	273	I $1,669,678	No Date $0	NI $24,261	$1,360,198 $1,693,939
		Timbalier Island is migrating rapidly to the west/northwest; therefore the western end of Timbalier Island is undergoing lateral migration by spit-building processes at the expense of erosion along the eastern end. The objective of this project is to restore the eastern end of Timbalier Island by the direct creation of dunes and marsh.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act (continued)	TE-41 (XTE-DEMO)	Mandalay Bank Protection Demonstration	SP	9	USFWS	Sen. D.A. "Butch" Gautreaux, R. P. Dupre, Jr. Rep. Carla Blanchard Dartez, H. Downer	Terrebonne	N/A	C $345,508	2003* $1,434,445	I $89,706	$1,194,495 $1,869,659
		This project is intended to develop new techniques for protecting and restoring organic soils that can be easily eroded. Intact banks and breakthroughs will be treated to determine the cost-effectiveness of demonstrated approaches.										
	TE-42 (Complex Project)	Move Existing Atchafalaya Water to Central Terrebonne	HR	9	USFWS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez, D. J. Baldone, L. J. Pitre, Jr.	St. Mary	N/A	NI N/A	No Date N/A	NI N/A	N/A N/A
		This project is intended to reduce marsh loss through the improved distribution of excess freshwater seasonally available in the Gulf Intracoastal Waterway (GIWW). The project will benefit deteriorating marshes in central and/or eastern portions of the Terrebonne Basin.										
	TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne	SP	10	NRCS	Sen. D.A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	Terrebonne, Lafourche	2,019	I $2,151,375	No Date $0	NI $18,625	$1,735,983 $2,170,000
		This project is intended to relieve Penchant Basin marshes from prolonged inundation, utilize the Gulf Intracoastal Waterway (GIWW) as a conveyance channel to direct Atchafalaya River flow to specific locations in need of freshwater input, and restore deteriorated channel banks of the GIWW.										
	TE-44	North Lake Mechant Landbridge Restoration	SP/MC	10	USFWS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	534	I $2,341,344	No Date $218,226	NI $293,652	$2,383,052 $2,853,222
		This project entails the creation of marsh through the deposition of dredged material, construction of five plugs, and the repair of a fixed-crest weir. This project will restore and protect a critical land bridge barrier between the easily erodible fresh marshes north of Bayou Decade and open waters of Lake Mechant. The vegetation planting component of the project proceeded forward as a separate construction unit.										
	TE-45	Terrebonne Bay Shore Protection/Oyster Reef Lake Athanasio Demonstration	SP	10	USFWS	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	N/A	I $563,915	No Date $1,334,856	NI $609,195	$2,006,373 $2,507,966
		This demonstration project will include the construction of five different shoreline protection structures. The cost and effectiveness of these structures will be evaluated over an eight-year period.										
	TE-46	West Lake Boudreaux Shoreline Protection and Marsh Creation	SP/MC	11	USFWS	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	145	I $1,624,728	No Date $0	NI $28,215	$1,322,354 $1,652,943
		This project is intended to protect the interior, low salinity marshes west of Lake Boudreaux from the high wave energy of the Lake. This will be accomplished through the construction of an 11,644-ft rock dike to stop erosion along the western shoreline of Lake Boudreaux and the creation of 124 acres of marsh through the deposition of dredge material.										
	TE-47	Ship Shoal: Whiskey West Flank Restoration	BI	11	EPA	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	182	I $3,717,855	No Date $0	NI $24,198	$2,998,960 $3,742,053
		This project will restore intertidal, supratidal and dune habitat in Whiskey Pass and the west flank of Whiskey Island through the deposition of sand dredged from Ship Shoal. This will provide a continued barrier to reduce wave and tidal energies, thereby protecting mainland shoreline from continued erosion.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities: Engineering, Design, and Landrights	Activities: Construction	Activities: Operation, Maintenance, and Monitoring	Original Baseline Cost (top) and Current Cost Estimate (bottom)
Breaux Act (continued)	TE-48	Raccoon Island Shoreline Protection/Marsh Creation	SP/MC	11	NRCS	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	167	I $1,240,700	No Date $0	NI $30,248	$1,016,758 $1,270,948
		This project will protect the Raccoon Island rookery and seabird colonies from an encroaching shoreline by reducing the rate of erosion along the western end and creating more land along the northern shoreline. This will be accomplished through the construction of eight additional segmented breakwaters along the Gulf side of the island just west of the Raccoon Island Breakwaters Demonstration (TE-29) project, and the creation of dune and supratidal habitat.										
	TV-03 (FTV-03)	Vermilion River Cutoff Bank Protection	SP	1	USACE	Sen. Craig F. Romero Rep. Troy Hebert	Vermilion	65	C $531,446	1996 $1,187,791	I $327,703	$1,526,000 $2,046,940
		The east bank of the Vermilion River Cutoff was stabilized by armoring the shoreline with a 6,520-foot rock breakwater to maintain the shoreline position and protect the integrity of several thousand acres of the Onion Lake wetland complex.										
	TV-04 (TV-04)	Cote Blanche Hydrologic Restoration	HR	3	NRCS	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	2,223	C $465,758	1999 $4,128,061	I $1,436,161	$5,173,062 $6,029,980
		Low-level weirs were constructed across seven major water exchange avenues to reduce water exchange between marshes of Cote Blanche and East and West Cote Blanche bays and to prevent scouring and persistent erosion of the interior marsh. In addition, the shoreline was armored on the southern boundary between Humble and British canals to minimize wave-induced erosion.										
	TV-09 (PTV-18)	Boston Canal/Vermilion Bay Bank Protection	SP	2	NRCS	Sen. Craig F. Romero Rep. Troy Hebert	Vermilion	378	C $154,742	1995 $524,439	I $333,510	$1,008,634 $1,012,691
		The objective of this project is to conserve vegetated wetlands by reducing erosion through the dissipation of wave energy. Rock revetments and sediment traps were constructed along the shoreline at the mouth of Boston Canal to promote sediment deposition and to protect the shoreline and adjacent wetlands from continued wave-induced erosion. Vegetation was also planted along 14 miles of Vermilion Bay shoreline to stabilize sediment and decrease shoreline erosion rates.										
	TV-11b (XTV-27)	Freshwater Bayou Bank Stabilization and Hydrologic Restoration - Belle Isle Canal to Lock	SP/HR	9	USACE	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	529	NI $1,380,303	No Date $0	NI $118,664	$1,498,967 $1,498,967
		This project was authorized to stop shoreline erosion, and to protect the interior wetlands from increased tidal exchange and wave and wake-induced erosion. This will be achieved by constructing a rock dike along the eastern bank of Freshwater Bayou Canal, between Belle Isle Canal and Freshwater Bayou Lock.										
	TV-12 (PTV-19)	Little Vermilion Bay Sediment Trapping	SNT	5	NMFS	Sen. Craig F. Romero, G. J. Theunissen Rep. Troy Hebert, M. Frith	Vermilion	441	C $204,397	1999 $351,930	I $337,283	$940,065 $893,610
		This project is designed to optimize the retention of sediment from the Atchafalaya River to create new marsh areas in Little Vermilion Bay. The project created earthen terraces to provide marsh habitat and protect adjacent wetlands from wave erosion. Construction was completed in August of 1999 and monitoring has been initiated.										
	TV-13a (XTV-25i)	Oaks/Avery Canals Hydrologic Restoration, Increment I	HR	6	NRCS	Sen. Craig F. Romero Rep. Troy Hebert	Iberia/ Vermilion	160	C $322,500	2002 $1,509,401	I $996,700	$2,367,700 $2,828,601
		This project is designed to protect the Vermilion Bay shoreline, protect the GIWW banklines, and stabilize water level fluctuation north of the GIWW and east of Oaks Canal. Vegetation was planted and rock dikes were constructed. An additional state-funded project (TV-13), located adjacent to this particular project, will incorporate the use of low-sill structures placed at the outfall of Avery Canal to redirect additional water flow through one particular section of Bayou Petite Anse, located south of the GIWW.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act (continued)		Marsh Island Hydrologic Restoration	HR	6	USACE	Sen. Craig F. Romero Rep. Troy Hebert	Iberia/ Vermilion	367	C $606,466	2001 $3,083,750	I $1,373,747	$4,094,900 $5,063,963
	TV-14 (TV-5/7)	The project was authorized to stabilize the northeastern shoreline of Marsh Island, including the northern shoreline of Lake Sand, to restore historical hydrology. The project consists of the construction of nine plugs to be placed in oil and gas canals at the northeast end of Marsh Island, the protection of the northeast shoreline of Marsh Island, and isolating Lake Sand from Vermilion Bay with dredged material.										
	TV-15 (PTV-19b)	Sediment Trapping at "The Jaws"	SNT	6	NMFS	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	1,999	C $438,654	2003* $2,548,187	I $405,294	$3,167,400 $3,392,135
		This project was authorized to reduce wave-induced shoreline erosion (currently 15 feet/year) within the project area and promote the deposition of sediment. This will be achieved by creating vegetated wetland terraces and reducing wave fetch. Distributary channels will be dredged to deliver water and sediment to the project area.										
	TV-16 (CW-05)	Chenier Au Tigre Sediment Trapping Demonstration	SNT/ SP	6	NRCS	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	N/A	C $85,961	2001 $450,567	I $68,829	$500,000 $605,357
		This demonstration project will field test the effectiveness of rock breakwaters that are designed to trap and retain sediment from Gulf tides, and potentially stabilize the existing shoreline on Chenier Au Tigre. Increased sediment accretion on the Gulf of Mexico side of the chenier is expected to act as a buffer between the higher salinity Gulf water and the brackish marsh, which lies immediately behind the chenier.										
	TV-17 (PTV-20)	Lake Portage Land Bridge	SP	8	NRCS/ EPA	Sen. Gerald J. Theunissen, C. F. Romero Rep. Mickey Frith, T. Hebert	Vermilion	24	I $250,646	2003* $694,871	NI $192,239	$1,013,820 $1,137,756
		The project was authorized to address localized wetland loss and imminent shoreline breaching of the Gulf of Mexico into Lake Portage. This will be achieved by the construction of a rock containment dike approximately 100 feet off the Gulf shoreline and backfilling with dredged material from Lake Portage. A pipeline canal will also be backfilled from the Gulf to Lake Portage.										
	TV-18 (XTV-30)	Four Mile Canal Terracing and Sediment Trapping	SNT	9	NMFS	Sen. Craig F. Romero, G. J. Theunissen Rep. Troy Hebert, M. Frith	Vermilion	327	NI $543,251	No Date $0	NI $24,511	$459,306 $567,762
		The project consists of the construction of over 50,000 linear feet of terraces and distributary channels within Little White Lake, and little Vermilion Bay, to abate wave-induced shoreline erosion.										
	TV-19 (PTV-13)	Weeks Bay Marsh Creation and Shore Protection/ Commercial Canal Freshwater Redirection	SP/VP/ HR	9	USACE	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	138	NI $1,188,236	No Date $0	NI $41,101	$1,229,337 $1,229,337
		The objective of this project is to stop shoreline and bank erosion. This will be achieved by the construction of a retention levee and channel plugs, the dedicated placement of dredged material, re-vegetating critical areas, and armoring shore/bank areas with sheetpile revetment. In addition, a low-sill weir will be placed across Commercial Canal to reduce tidal energies and redirect Atchafalaya River water.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
State	TE-01	Montegut Wetland	MM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	1,655	C	1993	I	$1,023,487
		The project objective is to protect and enhance 4,200 acres of degraded wetland habitat in the Pointe au Chien Wildlife Management Area. The project design includes maintenance of approximately 3.5 miles of levee and the modification of two existing fixed-crest weirs by installing stop-logs and flapgates.										
	TE-02	Falgout Canal Wetland	MM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	1,300	C	1993, 1995	I	$1,560,000
		The primary objectives of the project are to protect approximately 8,000 acres of marsh and cypress/tupelo swamp, reduce saltwater intrusion, and improve wildlife habitat by moderating water flux and tidal energy in the deteriorating wetland community. Anthropogenic changes, such as the construction of pipeline and access canals throughout the region's history, have altered its original hydrology. The project design consists of levee construction and maintenance, construction of seven water control structures, and construction of a pumping station.										
	TE-03	Bayou LaCache (Bush Canal)	MM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	171	C	1991, 1996	I	$1,189,494
		A water control structure in Bayou Lacache is needed to complete the Bush Canal Marsh Management Area. The structure is a four barrel prefabricated steel pipe structure with flap gates. The structure is 135 feet in length, consisting of four 48 inch diameter steel pipes with steel diaphragm plates, steel pipe bracing, gate supports, walkways and structural steel shop-fabricated flap gates.										
	TE-07b	Lower Petit Caillou	HR	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	333	C	1995		$440,000
		The objective of this project is to decrease saltwater intrusion into the project area by re-routing freshwater discharge from the Lashbrook pumping station through the project area prior to entry into Lake Boudreaux. Outfall from the pumping station is discharged into Lashbrook Canal and flows into the project area. Project features include five plugs on the perimeter of the project area to contain the pump discharge and promote sheetflow over the marsh surface, and shoreline stabilization along the northern spoilbank of Boudreaux Canal and the eastern shore of Lake Boudreaux.										
	TE-14	Point Farm Refuge Planting	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	150	C	1995	C	$192,016
		This project was developed to create bottomland hardwood forests in former farmlands within the Point Farm Refuge Area (PFRA). Approximately 108,900 seedlings of bitter pecan (*Carya aquatica*), water oak (*Quercus nigra*), and cow oak (*Quercus michauxii*) (with nutria exclusion devices) were planted within 300 acres of former farmland within the PFRA.										
	TV-02b	Yellow Bayou	SP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	52	C	1992	I	$194,500
		The objectives of the project are to maintain the integrity of approximately 2,000 acres of interior marsh between Jackson Bayou and the British-American Canal and to stabilize 7,465 feet of the East Cote Blanche Bay shoreline. This will be achieved by constructing an oyster shell berm adjacent to the water's edge, to reduce shoreline erosion.										
	TV-06	Marsh Island Control Structures	MM	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	643	C	1993	I	$453,500
		The objectives of this project are to reduce the rate of land loss, revegetate shallow open-water areas, and increase waterfowl food within the water management units. Flap-gated/stoplog culverts and earthen canal plugs were installed in October of 1993 at the northeast and southeast units to control water exchange between the units and the surrounding water bodies. Within the management units, canal spoil banks were breached and ditches were constructed to facilitate water movement between interior marsh ponds.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
State (continued)	TV-11	Freshwater Bayou Bank Protection	SP	N/A	N/A	Sen. Gerald J. Theunissen, C. F. Romero Rep. Mickey Frith, T. Hebert	Iberia/ Vermilion	511	C	1994, 1996, 2001	I	$2,456,425
		This project conserves vegetated wetlands by maintaining the physical integrity of marshes that separate Freshwater Bayou and interior water bodies. The dominant project feature consists of the construction of 24,000 linear feet of rock dike, extending north to the confluence of Belle Isle Bayou and Freshwater Bayou. The original project was constructed in 1994; however, repairs were made to the structure in 1996 and 2001.										
	TV-13	Oaks/Avery Canal	SP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia/ Vermilion	160	C	2000	I	$700,000
		This project will enhance the adjacent CWPPRA-funded TV-13a project by installing low-sill structures at the outfall of Oaks and Avery Canals to redirect more water flow through the portion of Bayou Petite Anse south of the GIWW.										
	TV-4355NP1	Quintana Canal/ Cypremort Point	SP	N/A	N/A	Sen. D. A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	26	C	1998		$684,610
		The project features approximately 3,650 linear feet of rock breakwaters along the Vermilion Bay shoreline and approximately 3,375 of foreshore rock dike along the Vermilion Bay/Quintana Canal intersect and the south bank of the Quintana Canal.										
	TE-LDWF	Raccoon Island	DM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	197	C	1994	N/A	$2,459,500
		This project was a cooperative effort that utilized dredged material and vegetation to repair Raccoon Island from storm damage. Cooperators include the Louisiana Department of Natural Resources (LDNR)/ Coastal Restoration Division (CRD), Louisiana Department of Wildlife and Fisheries (LDWF)/Fur and Refuge Division, Terrebonne Parish Consolidated Government (TPCG), South Terrebonne Tidewater Management and Conservation District, T. Baker Smith & Son, Inc., Coastal Engineering & Environmental Consultants, Inc., and Bean Dredging. Federal grant money was also utilized for this project by LDWF and TPCG.										
		Spoilbank along the GIWW	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	Terrebonne	1	C	1993	I	$9,400
		This project planted 8,000 feet of spoilbank along the Gulf Intracoastal Waterway with black willow (*Salix nigra*) and bald cypress (*Taxodium distichum*) in an effort to reduce further bank erosion. The effectiveness of different types of nutria exclusion devices were also tested.										
PCWRP		Pelican Point/Shark Island	SP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	3	C	1991	I	$10,000
		Brush fences were constructed in 1991 to prevent the continued shoreline erosion of Pelican Point and Shark Island in Iberia Parish.										
		GIWW near Hanson Canal	SP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	Terrebonne	3	C	1991, 1992, 1993, 1998	I	$95,152
		Brush fences were constructed in 1991, 1992, and 1993 to protect the shoreline along the GIWW near Hanson's Canal from boat-induced waves and erosion.										
		Atchafalaya River Delta	SP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	1	C	1991, 1992	I	$30,966
		Brush fences were constructed to promote the accumulation of sediment in an active delta.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
PCWRP (continued)		Vermilion Bay and Rainey Wildlife Preserve	SP	N/A	N/A	Sen. Craig F. Romero, G. J. Theunissen Rep. Mickey Frith, T. Hebert	Vermilion	319	C	1993-1995, 1997-2000	I	$108,815
		Vegetation has been planted along the shoreline and interior marsh along and adjacent to Vermilion Bay to protect the shoreline from continued erosion and to accumulate sediment to promote marsh creation.										
		Shark Bayou	SP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	34	C	1996	I	$8,250
		Vegetation was planted along 15,000 linear feet of the Weeks Bay shoreline near Shark Bayou to decrease shoreline erosion.										
		Weeks Island at GIWW	SP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	5	C	1992-2001	I	$126,381
		Brush fences were constructed to protect the shoreline and promote the accumulation of sediment adjacent to Weeks Island in Iberia Parish.										
	TV-02a	Hammock Lake	SP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	6	C	1992 - 2001	I	$458,426
		Brush fences were constructed to prevent erosion of the shoreline separating West Cote Blanche Bay from Hammock Lake, and to protect the adjacent marsh from erosion.										
		St. Martin Parish	SP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	0	C	1993-2001	I	$126,900
		Since 1993, St. Martin Parish has partnered annually with Iberia Parish and worked together on their projects at Weeks Island and Shark Bayou.										
Vegetation		Lake DeCade	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	83	C	1988,1989	N/A	$3,354
		A total of 6,000 smooth cordgrass *(Spartina alterniflora)* plants, 400 California bulrush *(Schoenoplectus californicus)* plants, and 2000 roseau cane *(Phragmites australis)* plants were used to restore an eroding shoreline by providing a vegetation barrier against wave-induced erosion.										
		Point au Chein	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Lafourche	17	C	1988, 1989	N/A	$6,500
		A total of 12,290 smooth cordgrass *(Spartina alterniflora)* plants were used to stabilize the bank behind newly constructed wave dampening devices.										
		Timbalier Island	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	133	C	1988	N/A	$78,736
		A total of 11,600 marshhay cordgrass *(Spartina patens)* plants were used on Timbalier Island to stabilize the sand, prevent its loss due to winds, and trap additional wind-borne sand.										
		Jackson Bayou Wetlands	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	5	C	1991	N/A	$3,793
		A total of 785 smooth cordgrass *(Spartina alterniflora)* plants and 35 giant cutgrass *(Zizaniopsis miliacea)* plants were used to vegetate an open water area in the interior marsh.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Vermilion/Weeks Bay	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	92	C	1991	N/A	$56,500
		A total of 20,000 smooth cordgrass *(Spartina alterniflora)* plants were used to create a stand of vegetation that will protect the Weeks Bay shoreline from wave-induced erosion.										
		Vermilion Bay North	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Vermilion	17	C	1991	N/A	$10,453
		A total of 3,000 smooth cordgrass *(Spartina alterniflora)* plants were used to protect the north shore of Vermilion Bay from wave induced erosion.										
		Levee Stabilization	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	2	C	1991	N/A	$2,825
		Six marsh grass species were planted on a spoilbank in Terrebonne Parish in order to stabilize the levee. These included common bermuda *(Cynodon dactylon)*, seashore saltgrass *(Distichlis spicata)*, marshhay cordgrass *(Spartina patens)*, Atlantic coastal panic grass *(Panicum sp.)*, gulf cordgrass *(Spartina spartinae)*, and seashore paspalum *(Paspalum vaginatum)*.										
		Wine Island	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	24	C	1991, 1994, 1995	N/A	$36,612
		A total of 2,500 smooth cordgrass *(Spartina alterniflora)* plants, 400 black mangrove *(Avicennia germinans)* trees, and 2,500 marshhay cordgrass *(Spartina patens)* plants were used to vegetate newly deposited dredge material.										
		Falgout Canal	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	26	C	1992, 1997, 1998	N/A	$15,153
		Smooth cordgrass *(Spartina alterniflora)* was planted along the bank in 1992 and giant cutgrass *(Zizaniopsis miliacea)* was planted in 1998 in order to re establish an eroded pipeline canal bank.										
		Bayou Petie Carlin	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	65	C	1992	N/A	$38,205
		A total of 4,635 smooth cordgrass *(Spartina alterniflora)* plants and 1,000 seashore paspalum (*Paspalum vaginatum*) plants were used to protect the shoreline of Bayou Petie Carlin from wave-induced erosion.										
		Isles Dernieres	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	275	C	1992	N/A	$195,600
		A total of 25,000 smooth cordgrass *(Spartina alterniflora)* plants were used on Trinity Island to stabilize the dune, prevent loss of sand due to winds, and trap additional wind-borne sand.										
		Lake Boudreaux	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone, C. B. Dartez	Terrebonne	18	C	1992, 1994	N/A	$10,543
		A total of 1,555 smooth cordgrass *(Spartina alterniflora)* plants were used to protect and stabilize a levee through the establishment of vegetation material.										
		Montegut	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	8	C	1993, 1996	N/A	$4,949
		A total of 730 smooth cordgrass *(Spartina alterniflora)* plants were used to provide shoreline stability to an area of the Montegut levee where approximately 200 feet of sheetpile was installed.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Petite Anse sites 5,6,7,8,9, and 15	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	282	C	1994, 1995, 1998, 2000, 2001	N/A	$194,008
		A total of 56,000 smooth cordgrass (*Spartina alterniflora*) plants and 600 California bulrush *(Schoenoplectus californicus)* plants were used at several projects in order to re-vegetate mud flats, stabilize new spoil, protect the shoreline, and trap sediment with established vegetation.										
		Thibodaux Oxbow	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	5	C	1994	N/A	$3,774
		A total of 1,140 smooth cordgrass *(Spartina alterniflora)* plants were used to re-vegetate mud flats and stabilize new spoil.										
		Bayou Milhomme	VP	N/A	N/A	Sen. Craig F. Romero Rep. Jack D. Smith	St. Martin	5	C	1994	N/A	$2,949
		A total of 435 California bulrush *(Schoenoplectus californicus)* plants were used along the protection levee on Bayou Milhomme to establish a buffer against additional shoreline erosion.										
		L.L. & E. TC-T3	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	Terrebonne	1	C	1994	N/A	$509
		A total of 75 California bulrush *(Schoenoplectus californicus)* plants were used to retain flotant and detrital material in a freshwater marsh to use as a low energy method of retaining detritus, and to form plugs in spoil levee breeches.										
		Fourleague Bay	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	5	C	1995	N/A	$2,712
		A total of 400 smooth cordgrass (*Spartina alterniflora*) plants were used to protect a segment of Fourleague Bay shoreline from wind-generated wave erosion.										
		Blue Hammock	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	2	C	1995	N/A	$1,356
		This project was designed to prevent shoreline erosion by establishing a stand of smooth cordgrass *(Spartina alterniflora)*; 200 plants were installed within the intertidal zone.										
		Hidalgo	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	60	C	1995, 1997, 1999	N/A	$35,161
		A total of 2,120 smooth cordgrass *(Spartina alterniflora)* plants, 1,533 California bulrush *(Schoenoplectus californicus)* plants, and 1,533 giant cutgrass *(Zizaniopsis miliacea)* plants were used to establish a stand of emergent vegetation that will prevent shoreline erosion and trap available sediment.										
		Bayou DeCade - Roseau	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	5	C	1995	N/A	$2,712
		A total of 400 roseau cane *(Phagmites australis)* plants were used to increase protection to this embankment by providing soil stability through a potentially extensive rootmass.										
		Bayou Sale '96	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	2	C	1996	N/A	$1,085
		A total of 800 California bulrush (*Schoenoplectus californicus*) plants were used to establish a stand of emergent vegetation that will prevent shoreline erosion and trap available sediment.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		H-H	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	Terrebonne	6	C	1996	N/A	$3,390
		A total of 300 giant cutgrass *(Zizaniopsis miliacea)* plants and 200 California bulrush *(Schoenoplectus californicus)* plants were used alongside a canal which is situated in a fresh marsh.										
		Jaws	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	7	C	1996, 1999	N/A	$4,068
		A total of 600 California bulrush (*Schoenoplectus californicus*) plants were used to establish a stand of emergent vegetation that will trap available sediment and prevent the loss of the sediment already established.										
		St. Mary Land Co. '96 and #3	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	36	C	1996	N/A	$21,018
		A total of 3,100 California bulrush *(Schoenoplectus californicus*) plants were used to establish a stand of emergent vegetation that will prevent shoreline erosion and trap available sediment.										
		Bayou Carlin	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	24	C	1996	N/A	$14,069
		A total of 2,075 smooth cordgrass (*Spartina alterniflora*) plants were used to establish a stand of emergent vegetation that will prevent shoreline erosion and trap available sediment.										
		Bayou Piquante	VP	N/A	N/A	Sen. D. A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	Terrebonne	2	C	1996	N/A	$1,220
		A total of 180 California bulrush *(Schoenoplectus californicus)* plants were used to re establish emergent vegetation on a natural bayou bank, provide a buffer for boat-generated waves, and filter suspended detrital material so that it is retained within the interior marsh.										
		Washout	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	3	C	1997	N/A	$1,627
		A total of 60 roseau cane *(Phragmites australis)* plants and 180 smooth cordgrass *(Spartina alterniflora)* plants were used to establish a stand of emergent vegetation that will create a living barrier against wave-induced shoreline erosion and protect an area where the Vermilion Bay shoreline is in danger of breaching into an adjacent oilfield canal.										
		Tiger Lagoon #1 and #2	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	37	C	1997, 2000	N/A	$26,306
		A total of 5,980 smooth cordgrass *(Spartina alterniflora)* plants were used to establish a stand of emergent vegetation that will prevent shoreline erosion and trap available sediment.										
		Lake Hatch GIWW	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	6	C	1997	N/A	$3,390
		A total of 500 California bulrush *(Schoenoplectus californicus)* were used to create a living natural barrier across breeches in the Intercoastal Canal levee which allows wave energy to destroy fragile, organic freshwater marsh behind the levee.										
		Bayou Blue Bullwhip	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Loulan Pitre, Jr.	Terrebonne	23	C	1998	N/A	$13,560
		A total of 200 smooth cordgrass *(Spartina alterniflora)* plants, 2,480 California bulrush *(Schoenoplectus californicus)* plants, and 200 roseau cane *(Phragmites australis)* plants were used to re-establish emergent vegetation on a natural bayou bank, provide a buffer for boat generated waves, and filter suspended detrital material so that it is retained within the interior marsh.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Humble Canal	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	23	C	1998	N/A	$13,560
		A total of 2,000 California bulrush *(Schoenoplectus californicus)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced marsh erosion.										
		Bayou Chauvin Pipe Canal	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	21	C	1998, 2000	N/A	$12,543
		A total of 850 California bulrush *(Schoenoplectus californicus)* plants and 1,000 smooth cordgrass *(Spartina alterniflora)* plants were used to reduce boat-indued shoreline erosion on the edge of a pipeline canal.										
		Houma Navigation Canal	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	32	C	1999	N/A	$18,984
		A total of 2,800 smooth cordgrass *(Spartina alterniflora)* plants were used along the shoreline of the Houma Navigation Canal in order to buffer boat-wave energy and decrease bank erosion.										
		Company Canal Levee	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Loulan Pitre, Jr.	Lafourche	31	C	2000	N/A	$18,306
		A total of 2,700 giant cutgrass *(Zizaniopsis miliacea)* were used along Company Canal to establish a vegetation barrier, slow shoreline erosion, and provide seed for natural revegetation.										
		Shell Canal	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	74	C	2000	N/A	$43,392
		A total of 4,400 smooth cordgrass *(Spartina alterniflora)* plants and 2,000 giant cutgrass *(Zizaniopsis miliacea)* plants were used to re-vegetate an interior marsh that has subsided near the canal bank and to protect a narrow shoreline which is beginning to erode into the adjacent marsh.										
		Cocodrie Pump-in	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	23	C	2000	N/A	$13,560
		A total of 1,000 California bulrush *(Schoenoplectus californicus)* plants and 1,000 smooth cordgrass *(Spartina alterniflora)* plants were used to establish vegetation on a new pump-in area.										
		Oaks Canal	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Vermilion	36	C	2000	N/A	$26,442
		A total of 5,200 smooth cordgrass *(Spartina alterniflora)* plants were used to produce a living barrier of vegetation that will slow erosion of canal banks and levees, accrete available sediment, provide habitat for wildlife, and make a seed source available for natural regeneration.										
		Luke Landing	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	12	C	2000	N/A	$6,780
		A total of 1,000 smooth cordgrass *(Spartina alterniflora)* plants were used to create stands of emergent vegetation, provide a living barrier against boat and wave-induced erosion, trap sediment, and provide a seed source for natural regeneration of emergent vegetation.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Bayou Carlin - GIWW	VP	N/A	N/A	Sen. Craig F. Romero Rep. Troy Hebert	Iberia	20	C	2001	N/A	$10,202
		A total of 1,800 California bulrush (*Schoenoplectus californicus*) plants were placed along Bayou Carlin between Commercial Canal and the GIWW to re-establish the shoreline of Bayou Carlin, slow water movement along the shoreline, and allow for additional sediment accumulation.										
		Lake Cheniere Interior Marsh Demonstration	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Lafourche	10	C	2001	N/A	$32,723
		Both black mangrove (*Avicennia germinans*) and smooth cordgrass (*Spartina alterniflora*) were planted on the shoreline of Lake Cheniere, near Point aux-Chenes, to create a buffer against shoreline erosion.										
		Hammock Bayou	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	6	C	2001	N/A	$6,273
		A total of 1,640 smooth cordgrass (*Spartina alterniflora*) plants were placed along Hammock Bayou near its confluence with West Cote Blanche to decrease the rate of shoreline erosion, stabilize the bank of Hammock Bayou, and to trap additional sediment.										
		Hammock Lake	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	4	C	2001	N/A	$21,173
		A total of 360 smooth cordgrass (*Spartina alterniflora*) plants were placed along the shoreline of Hammock Lake near Cypremort Point in order to accrete additional sediment and protect the shoreline of Hammock Lake from further erosion. An added benefit of this project is the protection of an isolated population of leafy three-square (*Scirpus robustus*), a beneficial species for wildlife.										
		Colony Establishment Demonstration	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	7	C	2001	N/A	$3,500
		A total of 1,000 smooth cordgrass (*Spartina alterniflora*) plants were placed near Oyster Lake in an expansive mud flat, approximately two miles southeast of Cypremort Point, between Hammock Lake and Oyster Lake. Vegetation was planted in a grid formation to encourage ongoing, self-sustaining marsh growth in this particular shallow-water area, and to provide additional fisheries and wildlife habitat.										
		Round Lake	VP	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Jack D. Smith	St. Mary	6	C	2001	N/A	$3,606
		A total of 560 smooth cordgrass (*Spartina alterniflora*) plants were placed along the shoreline of Round Lake, an interior lake located about three miles southeast of Cypremort Point, in order to reduce tidal exchange into the marsh, trap available sediment, and provide seed for natural regeneration.										
		Parish Line Canal	VP	N/A	N/A	Sen. Fred Hoyt Rep. Lloyd "Mickey" Frith	Vermilion	23	C	2001	N/A	$11,204
		A total of 2,000 smooth cordgrass (*Spartina alterniflora*) plants were placed along Parish Line Canal, just west of the Iberia/Vermilion parish line, to provide a buffer against shoreline erosion and trap available sediment.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Bayou Folse	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Diane G. Winston	Lafourche	34	C	2002	N/A	$24,000
		This project consists of a canal bank planting using 1,000 trade gallon containers of Giant cutgrass (*Zizaniopsis miliacea*) and an interior marsh planting using 2,000 trade gallon containers of California bulrush (*Schoenoplectus californicus*) to create a vegetative buffer along the new spoil material on Bayou Folse and to restore interior vegetation in interior ponds; 15,000 linear feet were planted.										
		Grand Bayou	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Glenn Ansardi	Lafourche	11	C	2002	N/A	$8,000
		This canal bank planting used 1,000 trade gallon containers of California bulrush (*Schoenoplectus californicus*) to create a vegetative buffer against wind and boat generated wave energy; 5,000 linear feet of canal bank were planted.										
		Lake Boudreaux	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Glenn Ansardi	Terrebonne	11	C	2002	N/A	$8,000
		This canal bank planting used 1,000 trade gallon containers of smooth cordgrass (*Spartina alterniflora*) to provide a vegetative buffer against wind- and boat-generated wave energy; 5,000 ft of canal bank will be planted using 1,000 trade gallon containers of Smooth cordgrass on 5ft centers.										
		Bayou Colyell	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Diane G. Winston	Terrebonne	7	C	2002	N/A	$4,800
		This canal bank planting used 600 trade gallon containers of smooth cordgrass (*Spartina alterniflora*) to create a vegetative buffer against wind- and boat-generated wave energy; 3,000 linear feet of canal bank were planted.										
		GIWW Cypress Restoration	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Gary L. Smith, Jr.	Lafourche	11	C	2002	N/A	$4,000
		This canal bank planting used 500 bare root bald cypress seedlings (*Taxodium distichum*) to restore a vegetative corridor along the GIWW; 5,000 linear feet of canal bank were planted.										
		Falgout Canal Flotant	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Gary L. Smith, Jr.	Terrebonne	11	C	2002	N/A	$10,600
		This interior marsh demonstration used 800 trade gallon containers of California bulrush (*Schoenoplectus californicus*) and 600 feet of coconut fiber matting plugged with 300 giant cutgrass (*Zizaniopsis miliacea)* plugs to demonstrate the use of fiber matting to restore and establish floating marsh and to show the use of vegetative terraces to filter sediment and reduce wave energy; 4,600 linear feet of interior marsh were planted.										
		Union Oil Canal	VP	N/A	N/A	Sen. Craig F. Romero Rep. Glenn Ansardi	Iberia	23	C	2002	N/A	$13,400
		This eroding canal bank was planted with 3,350 mooth cordgrass (*Spartina alterniflora*) plugs to produce a living barrier to slow the erosion of the canal banks and protect the interior marsh behind the banks, and to compare the effectiveness of plantings on the banks with and without trees; 10,050 linear feet were planted.										
		GIWW Delcambre	VP	N/A	N/A	Sen. Craig F. Romero Rep. Glenn Ansardi	Iberia	12	C	2002	N/A	$8,560
		Several actively eroding areas along the GIWW were planted with a total of 700 unanchored and 900 anchored trade gallon containers of smooth cordgrass (*Spartina alterniflora*) to demonstrate the ability of the plant to produce a living barrier against erosion, and to accrete available sediment and establish stands of vegetation to serve as a seed source for natural regeneration; 5,350 linear feet were planted.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Avoca Island	VP	N/A	N/A	Sen. D. A. "Butch" Gautreaux Rep. Diane G. Winston	St. Mary	10	C	2002	N/A	$7,040
		A total of 880 trade gallon containers of giant cutgrass (*Zizaniopsis miliacea*) were planted in several areas to slow erosion and protect interior marshes to create a living barrier to: (site 1) slow erosion of levees and of interior marsh behind openings in a rock breakwater; (sites 2 and 3) slow water movement into and out of an open water area, re-establish the bayou shoreline, and accrete any available sediment. Site 1 has 360 plantings that are anchored, site 2 has 280 plants, and site 3 has 240 plants; a total of 4,400 linear feet were planted.										
		Gray Duck Hole	VP	N/A	N/A	Sen. D. A. "Butch" Gautreaux Rep. Glenn Ansardi	St. Mary	12	C	2002	N/A	$8,480
		A total of 1,060 trade gallon containers of giant cutgrass (*Zizaniopsis miliacea*) were planted along an eroding levee and on islands that protect an interior marsh. This was done to create a living barrier of plants to slow erosion on the levee and on the islands, to provide wildlife habitiat, and to provide a seed source for natural regeneration; 5,300 linear feet were planted.										
		Treyne	VP	N/A	N/A	Sen. D. A. "Butch" Gautreaux Rep. Gary L. Smith, Jr.	St. Mary	14	C	2002	N/A	$9,600
		A total of 1,200 trade gallon containers of giant cutgrass (*Zizaniopsis miliacea*) plants were placed across an eroding marsh area to slow water movement into and out of the area, to allow sediment to drop out of the flowing water, to encourage submerged aquatic vegetation to grow, and to accrete available sediment to slow sedimentation of the interior open water area; 6,000 linear feet were planted.										
		Boy Scout Camp	VP	N/A	N/A	Sen. D. A. "Butch" Gautreaux Rep. Diane G. Winston	St. Mary	2	C	2002	N/A	$1,600
		A total of 200 trade gallon containers of giant cutgrass (*Zizaniopsis miliacea*) were planted in large cells to create islands of vegetation to create vegetative cells, to provide emergent vegetation in an open water area, and to determine the feasibility of using giant cutgrass to create vegetative terraces; 1,000 linear feet were planted.										
		Delcambre Terrace Demo	VP	N/A	N/A	Sen. Craig F. Romero Rep. A. G. Crowe	Vermilion	12	C	2002	N/A	$4,320
		This demonstration project used 1,080 plugs of smooth cordgrass (*Spartina alterniflora*) to establish vegetation on newly built terraces to prevent their erosion, to provide wildlife habitat, and to determine the effectiveness of smooth cordgrass in stabilizing small terraces; 5,400 linear feet were planted.										
		Vermilion Maintenance	VP	N/A	N/A	Sen. Craig F. Romero Rep. Gary L. Smith, Jr.	Vermilion	11	C	2002	N/A	$6,132
		This project filled gaps left when the Oaks Canal, Camp Canal, and Parish Line Canal projects were planted. A total of 1,533 trade gallon containers of smooth cordgrass (*Spartina alterniflora*) plugs were used to provide a continuous living barrier of plants to slow erosion of canal banks and levees, and to fill in gaps and areas with poorer survival; 4,600 linear feet were planted.										
Section 204/1135	DSR-81558	Wine Island Restoration	DM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	37	C	1991	N/A	$1,007,000
		This Section 1135 project was a cooperative effort with the USACE in the use of beneficial dredging from a scheduled Houma Navigational Canal maintenance dredging project. Wine Island was restored with the beneficial use of dredged material.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Section 204/1135 (continued)		Houma Navigation Canal, Wine Island Barrier Island Restoration	DM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	50	C	2002*	N/A	$1,000,000
		This Section 204 project will investigate the feasibility of beneficially using the dredged material from the bar channel area in lieu of the Ocean Dredged Material Disposal Site. The project area is approximately 35 miles south of Houma, Louisiana at the mouth of the navigation channel in Terrebonne Bay. The construction schedule of this project was expedited due to the impact of Hurricane Lili and Tropical Storm Isodore.										
Other	DSR-81557	Houma Navigational Canal Levee Maintenance (FEMA)	SP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Carla Blanchard Dartez	Terrebonne	4,000	C	1995	N/A	$218,165
		This FEMA project involved the repair of segments of the western bank of the Houma Navigational Canal damaged by Hurricane Andrew in 1992.										
	DSR-81558	Wine Island (FEMA)	DM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	25	C	1995	N/A	$253,579
		This FEMA project was a cooperative venture with the USACE in the use of beneficial dredging from a scheduled Houma Navigational Canal maintenance dredging project. The island was repaired to pre-Hurricane Andrew condition and planted with vegetation to stabilize the sediment.										
	DSR-81560	East Island Repair Protection (FEMA)	DM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	25	C	1996	N/A	$633,179
		This FEMA project constructed an elevated marsh platform in an area of a Terrebonne Parish project destroyed by Hurricane Andrew in 1992. Vegetation was also planted to stabilize the sand.										
	DSR-81559	Timbalier Island Repair (FEMA)	DM	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	70	C	1996	N/A	$551,653
		This FEMA project closed a major breach created by Hurricane Andrew and provided a 300-foot-wide elevated marsh platform to stabilize the island. Vegetation was also planted to stabilize the sand.										
	DSR-81784	Timbalier Island (FEMA 1999)	SP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	N/A	C	2000	N/A	$181,394
		This FEMA project repaired sand fencing on Timbalier Island destroyed during a series of tropical storms and hurricanes in the fall of 1998.										
	DSR-81785	Falgout Canal (FEMA 1999)	MM	N/A	N/A	Sen. D.A. "Butch" Gautreaux Rep. Carla Blanchard Dartez	Terrebonne	N/A	C	2000	N/A	$7,070
		This FEMA project replaced flap gates on water control structures damaged during tropical storms and hurricanes in the fall of 1998. The installation of the new flapgate culvets was completed by Terrebonne Parish Consolidated Government.										

(Region 3 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Other (continued)	DSR-81786	East Island (FEMA 1999)	VP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	N/A	C	2000	N/A	$89,940
		This FEMA project involved the planting of marsh vegetation on the dune and Lake Pelto shoreline of East Island. This area is part of a CWPPRA project damaged by a series of tropical storms and hurricanes in the fall of 1998. A total of 4,280 smooth cordgrass *(Spartina alterniflora)*, 500 black mangrove (*Avicennia germinans*), and 6,147 roseau cane (*Phragmites australis*) were planted in April 2000.										
	DSR-81787	Whiskey Island (FEMA 1999)	SP	N/A	N/A	Sen. Reggie P. Dupre, Jr. Rep. Damon J. Baldone	Terrebonne	1,259	C	2000	N/A	$581,566
		This FEMA project involved the installation of sand fencing and the planting of vegetation to repair areas of Whiskey Island damaged by tropical storms and hurricanes during the fall of 1998. This area is part of a CWPPRA project area and CWPPRA funds were combined with the FEMA funds for repairs. Repairs were completed in August 2000.										

(Region 3 continued)

Program: Breaux Act=Coastal Wetlands Planning Protection and Restoration Act (CWPPRA); State=Restoration projects funded primarily by the State of Louisiana through the Coastal Restoration Division; PCWRP=Parish Coastal Wetlands Restoration Program; Vegetation=DNR/NRCS/SWCC Vegetation Planting Program; Section 204/1135=Water Resource Development Act Sections 204 and 1135 beneficial use of dredged material projects; WRDA=Water Resources Development Act; Mitigation=mitigation projects implemented by the Coastal Restoration Division.

Project Type: HR=Hydrologic Restoration; DM=Beneficial Use of Dredged Material; MM=Marsh Management; MC=Marsh Creation; SP=Shoreline Protection; FD=Freshwater Diversion; VP=Vegetation Planting; SNT=Sediment and Nutrient Trapping; SD=Sediment Diversion; BI=Barrier Island.

PPL: Priority Project List (as authorized by the Breaux Act Task Force).

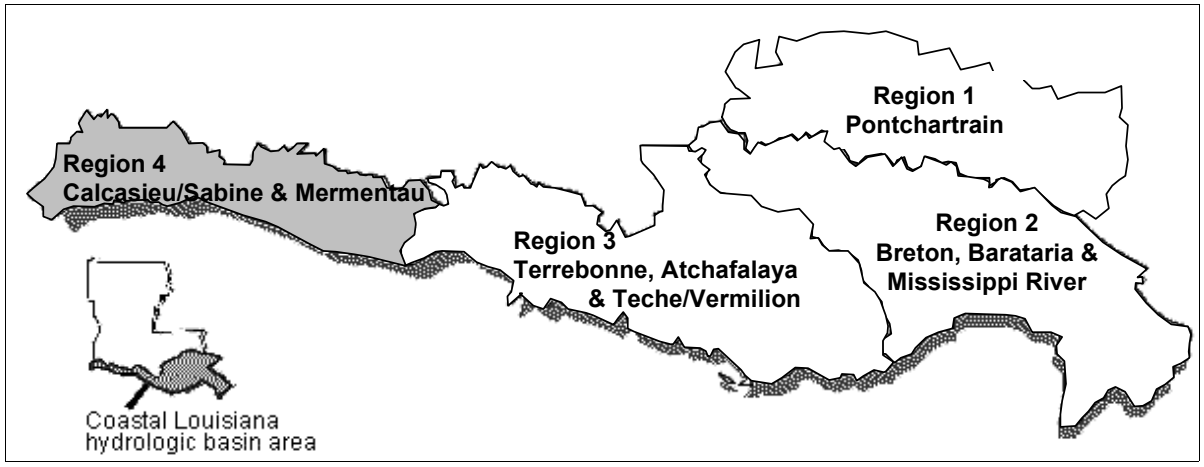
Agency/Sponsor: NRCS=Natural Resources Conservation Service; USFWS=U.S. Fish and Wildlife Service; USACE=U.S. Army Corps of Engineers; EPA=Environmental Protection Agency; NMFS=National Marine Fisheries Service.

Anticipated Acres Benefitted: N/A for Breaux Act demonstration and deauthorized projects.

Activities: C=Completed; I=Initiated; NI=Not Initiated; N/A=Not Applicable; a date in the construction column indicates construction completion date or anticipated date (*).

Original Baseline Costs and Current Cost Estimates for Breaux Act projects are from the USACE. Costs for other restoration programs are from DNR's Contract and Budget Section. Original Baseline Cost and Current Cost Estimate both include contingency funds. Breaux Act PPL 9 project costs are for Phase I only. Vegetation program project costs are estimated based on plant size and quantity.

REGION 4



INTRODUCTION

Region 4 includes the Mermentau and Calcasieu/Sabine hydrologic basins and contains approximately 768,210 acres of coastal wetlands. This region extends from the western bank of the Freshwater Bayou Canal, westward to the Louisiana/Texas border in Sabine Lake, and from the marshes just north of the GIWW, south to the Gulf of Mexico. This region covers all or part of Vermilion, Cameron, and Calcasieu parishes.

The wetlands in Region 4 are classified as approximately 520 acres of cypress-tupelo swamps, 9,590 acres of bottomland hardwood forests, 354,600 acres of fresh marshes, 171,700 acres of intermediate marshes, 198,600 acres of brackish marshes, and 33,200 acres of saline marshes.

Estimates of wetland loss from Region 4 indicate that between 1932 and 1990, a total of 226,000 acres of wetlands were lost (an average of 3,897 acres per year). More recent estimates from 1978 to 1990 indicate that the wetland loss rate was even higher during this shorter time period and averaged 4,288 acres per year.

The Mermentau Basin extends from Freshwater Bayou Canal westward to Louisiana Highway 27, and is divided into two sub-basins, the Lakes Sub-basin north of the Grand Chenier ridge complex, and the Chenier Sub-basin to the south. The basin's primary source of freshwater inflow is the Mermentau River. The natural drainage of the Lakes sub-basin has been interrupted by canals and water control structures. The sub-basin contains Grand and White lakes, and functions similar to a freshwater reservoir. Drainage occurs eastward to Freshwater Bayou Canal, southward to the Gulf of Mexico, and westward to the Mermentau River and Calcasieu Ship Channel.

The Calcasieu/Sabine Basin is a shallow, coastal wetland system with freshwater input at the north end from the Sabine and Calcasieu rivers. Water circulates between Calcasieu and Sabine lakes via the GIWW and interior canals. Both lakes are connected to important shipping corridors and are also used for recreation. As in the Mermentau Basin, many wetlands in this basin are actively managed, with structures in the Cameron-Creole Watershed, Sabine National Wildlife Refuge, and on private lands.

The major objectives within this region are to reduce the salinities of the marsh habitats in the western and southern areas and to convert most of the Lakes Sub-basin to fresh marsh. The objective for the Chenier Sub-basin is to convert the existing saline and brackish marshes to brackish and intermediate

marshes by the year 2050. The objective for the Calcasieu/Sabine Basin is to create fresher conditions by the year 2050.

Coast 2050 identified specific ecosystem strategies for protecting and sustaining the region's coastal resources (Figure12). These specific ecosystem strategies can be grouped into one of the following five general categories: restoring and sustaining wetlands, controlling salinity in the Calcasieu/Sabine Basin, protecting bay and lake shorelines, restoring and maintaining barrier islands and shorelines, and maintaining critical landforms.

PROJECT INFORMATION

A total of 118 restoration projects have been authorized for Region 4 (Table 4). Project specific information is presented below, organized by project funding source.

BREAUX ACT

A total of 32 projects have been authorized under the direction of the Breaux Act in Region 4, which are anticipated to benefit 34,313 acres of wetlands at a cost of $99,174,678. Projects constructed in Region 4 under the Breaux Act this year are Sabine Refuge Marsh Creation, Increment 1 (CS-28), and Humble Canal Hydrologic Restoration (ME-11).

Eight Breaux Act projects address marsh loss caused by changes in natural hydrology. Previously constructed projects are Cameron-Creole Maintenance (CS-04a), Humble Canal Hydrologic Restoration (ME-11), Cameron/Creole Plugs (CS-17), Black Bayou Hydrologic Restoration (CS-27), and Freshwater Bayou Wetland (ME-04). More recently, the following four projects have been authorized and are currently in the design phase: East Sabine Lake Hydrologic Restoration Project (CS-32), Black Bayou Bypass Culverts (CS-29), Freshwater Introduction South of Hwy 82 (ME-16), and Little Pecan Bayou Control Structure (ME-17). In an attempt to address problems associated with saltwater intrusion and marsh impoundment, these projects focus on changing human-altered drainage patterns back to their more natural state.

Four Breaux Act marsh management projects address the conversion of marshes to open water and changes in marsh vegetation. The three constructed projects are East Mud Lake (CS-20), Highway 384 (CS-21), and Replace Hog Island, West Cove, and Headquarter Structures (CS-23). Brown Lake (CS-09a) is planned for construction in 2003. These projects are intended to return marshes to their more natural hydrologic state through the use of structures that control water exchange. Additionally, vegetation plantings have been used to reduce shoreline erosion and stabilize fragile erodible soils.

Ten Breaux Act projects in this region address shoreline erosion. The projects that have been constructed are Sabine Refuge (CS-18), Clear Marais (CS-22), Perry Ridge East Shore Protection (CS-24), Sweet Lake/Willow Lake (CS-11b), Cameron Prairie Refuge (ME-09), Perry Ridge West Bank Stabilization/Terracing (CS-30), and Freshwater Bayou Bank Stabilization (ME-13). Construction of the Holly Beach to Constance Beach Segmented Breakwaters Sand Management Project (CS-31) was initiated in 2002, and will be completed in early 2003. Dates of construction are still pending for Rockefeller Refuge Shoreline Stabilization (ME-18), and Grand White Lake Land Bridge Protection (ME-19). These projects involve various techniques which are designed to decrease shoreline erosion rates.

Data from Freshwater Bayou Wetland Protection (ME-04) indicate that the rock dikes were successful at decreasing wave-induced shoreline erosion, and in some instances deposition occurred between the dike and the shoreline. The reference area eroded at 6.5 feet per year for the first year after construction, whereas the shoreline at the project area actually prograded at a rate of 2.3 feet per year. The second goal of the project was to reduce the frequency and duration of

marsh inundation by using 11 pre-existing and 8 newly constructed wooden box culverts to allow water movement in and out of the study area. The effectiveness of the wooden box culvert structures could not adequately be assessed because their planned operation was disrupted by drought conditions and by unauthorized, unmonitored use.

The Breaux Act sediment and nutrient trapping projects, Plowed Terraces Demonstration (CS-25) and Pecan Island Terracing (ME-14), were constructed in 2000. These projects were designed to demonstrate the cost effectiveness of creating terraces with a plow, rather than with the more traditionally used drag line and bucket dredge. Once vegetated, the created emergent wetlands will trap sediment and reduce wave energy, thereby protecting interior marshes.

Two vegetation planting projects, West Hackberry (CS-19) and Dewitt-Rollover Plantings Demonstration (ME-08), were designed to increase vegetation and minimize wind-driven wave erosion. However, none of the plantings in the ME-08 project survived and erosion continued in the study area, demonstrating that smooth cordgrass is inadequate for reducing erosion in high-energy sites experiencing high rates of erosion. The project was subsequently deauthorized.

Sabine Refuge Marsh Creation (Revised, Increment I, CS-28), constructed in 2002, was designed to create new vegetated marsh in shallow open water areas, and to enhance and protect existing marsh vegetation

The following three projects have been deauthorized in Region 4: Compost Demonstration (CS-26), SW Shore White Lake Protection Demonstration (ME-12), and Dewitt-Rollover Plantings Demonstration (ME-08).

STATE

Eight projects, implemented in Region 4 by the CRD and funded by the Wetlands Trust Fund and/or local Parish funds, are estimated to benefit 1,972 acres of land at a cost of $10,582,546.

Holly Beach (CS-01bc), constructed in phases between 1991 and 1994, addressed shoreline erosion by utilizing segmented rock breakwaters. Monitoring data indicate that 49,284 cubic yards of sediment accumulated behind the breakwaters from 1990 to 1995.

Several state-funded shoreline protection projects constructed between 1989 and 1991, have benefitted areas within Region 4 using various techniques. The Sabine Shellbank Stabilization utilized shell to minimize shoreline erosion, whereas the Blind Lake shoreline protection project used limestone breakwaters and vegetation plantings along the GIWW adjacent to Blind Lake. Four years after planting, a high rate of plant survival enabled vegetation at Blind Lake to spread into an area 20 feet in width. The Brannon Ditch project incorporated the use of vegetation along the GIWW and a wooden wave-damping fence to protect the shoreline from continued erosion.

The Sabine Terraces project, constructed in 1991, decreased shoreline erosion and promoted vegetation growth and sedimentation in the Sabine National Wildlife Refuge. This project minimized wind-induced wave erosion through the construction of 128 earthen terraces, positioned in a checkerboard pattern in shallow open water areas. Monitoring data revealed a pre-construction, annual shoreline retreat rate of 11.6 feet per year. After construction, the average annual shoreline movement advanced approximately 21.0 feet per year between 1990 and 1993. Data also indicated that wave height was significantly decreased, primary marsh production increased, and the amount of vegetation coverage increased following project construction.

The Rycade Canal (CS-02) marsh management project, constructed in 1994, involves hydrologic modifications designed to decrease salinity and improve marsh conditions. The Pecan Island (ME-01) freshwater diversion project, constructed in 1992, allowed for movement of sediment, nutrients, and freshwater from White Lake to

surrounding wetlands south of the Pecan Island chenier. Cameron Creole (CS-04a-1), a hydrologic restoration project constructed in 1999, addresses habitat shifts associated with saltwater intrusion and marsh impoundment.

PARISH COASTAL WETLANDS RESTORATION PROGRAM

The eight Christmas tree projects implemented in Region 4 are Ellender Bridge, Goose Lake, Kelso Bayou, Portie Lakes, Cameron Creole, Cameron Creole #2, Black Lake, and Prien Lake. The Cameron Creole #2 and Prien Lake sites were constructed and/or maintained in 2001. The PCWRP is responsible for building approximately 8,723 linear feet of fences in Region 4 since 1990.

This program also includes the first phase of two vegetation projects, Collicon Lake and Turner's Bay, where 1,200 plants were installed along 6,000 linear feet of shoreline/bankline to reduce erosion and to promote sediment accumulation.

DNR/NRCS/SWCC VEGETATION PLANNING PROGRAM

Since 1998, a total of 64 vegetation planting projects have been implemented in Region 4. These projects involved the planting of approximately 402,935 plants (mostly California bulrush, *Schoenoplectus californicus*, and smooth cordgrass, *Spartina alterniflora*) along more than 952,107 linear feet of shoreline. Several phases, which span over several years, exist for many of the planting projects. Projects completed in 2002 are D.U. Terrace Demo, Grosse Savanne Mar #7, Trident Dock, GIWW-Pontoon Bridge, and Mud Lake Peninsula.

SECTION 204/1135

Four Section 204 projects in Region 4, Brown Lake, and Calcasieu River & Pass Phases I, II, and III, created approximately 982 acres of wetlands. These projects utilized dredged material from routine maintenance of the Calcasieu Ship Channel to benefit areas along the shore of Calcasieu Lake and areas within the Sabine National Wildlife Refuge.

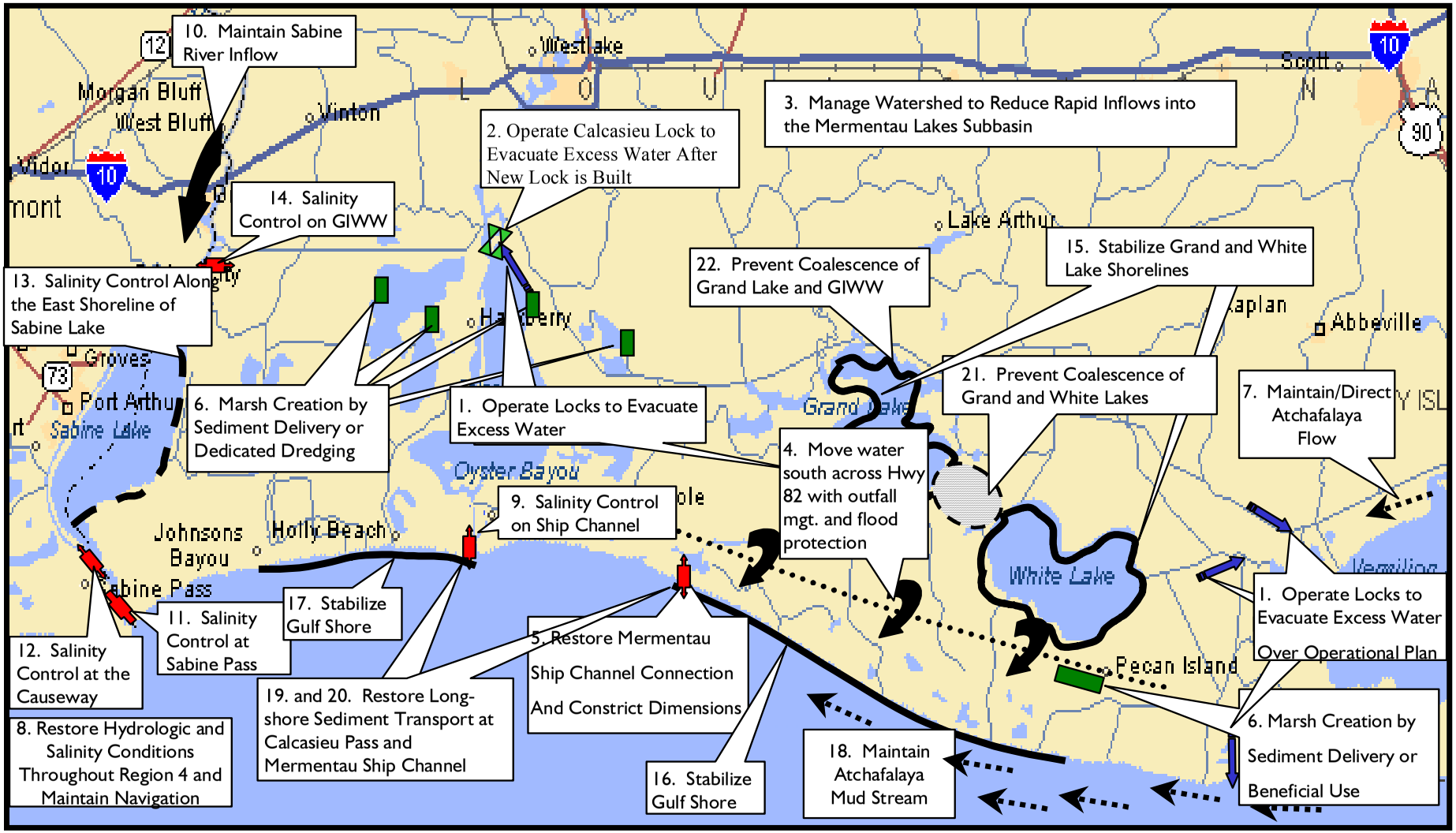


Figure 12. Coast 2050 Region 4 ecosystem strategies.

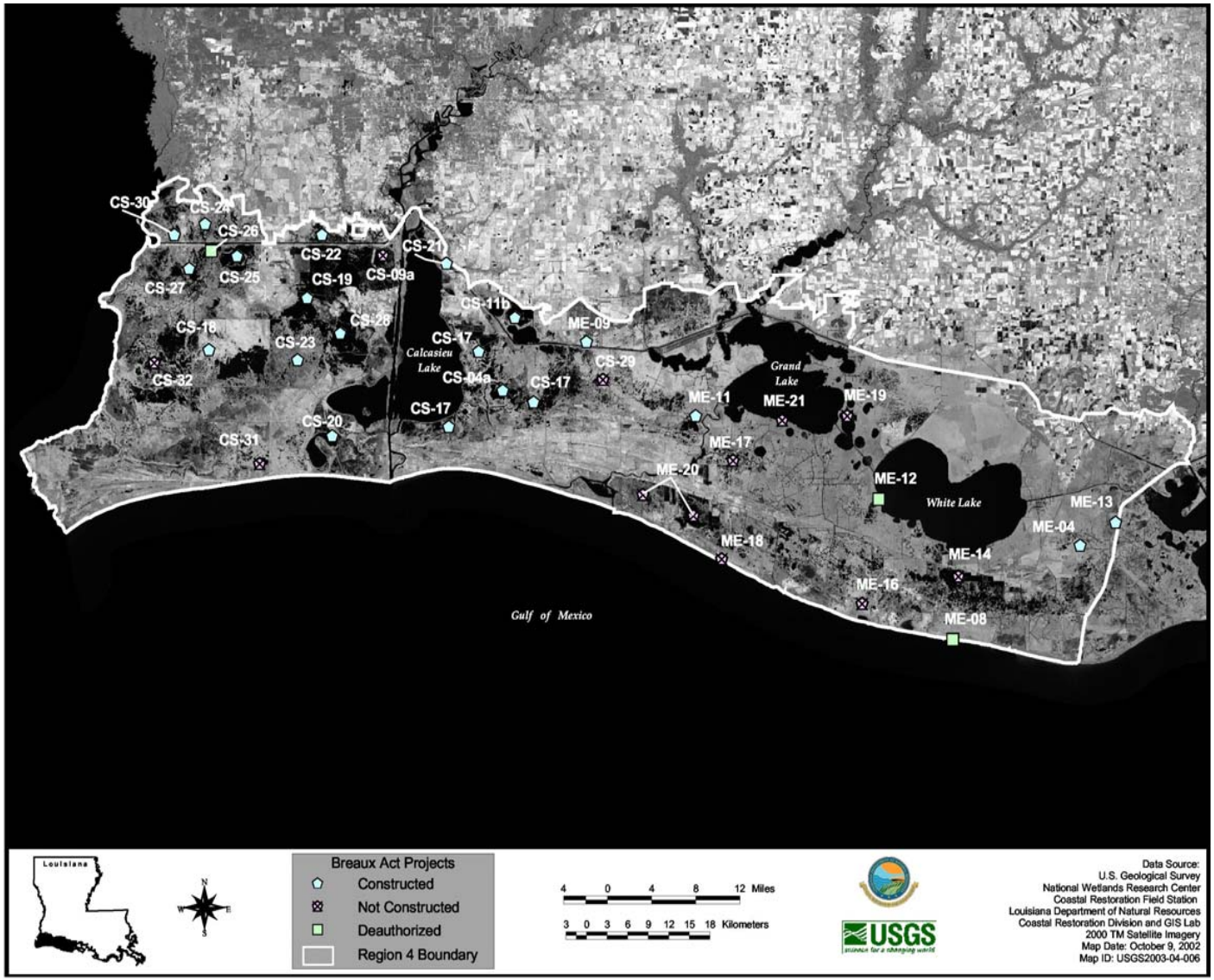


Figure 13. Location of Breaux Act projects authorized in Coast 2050 Region 4.

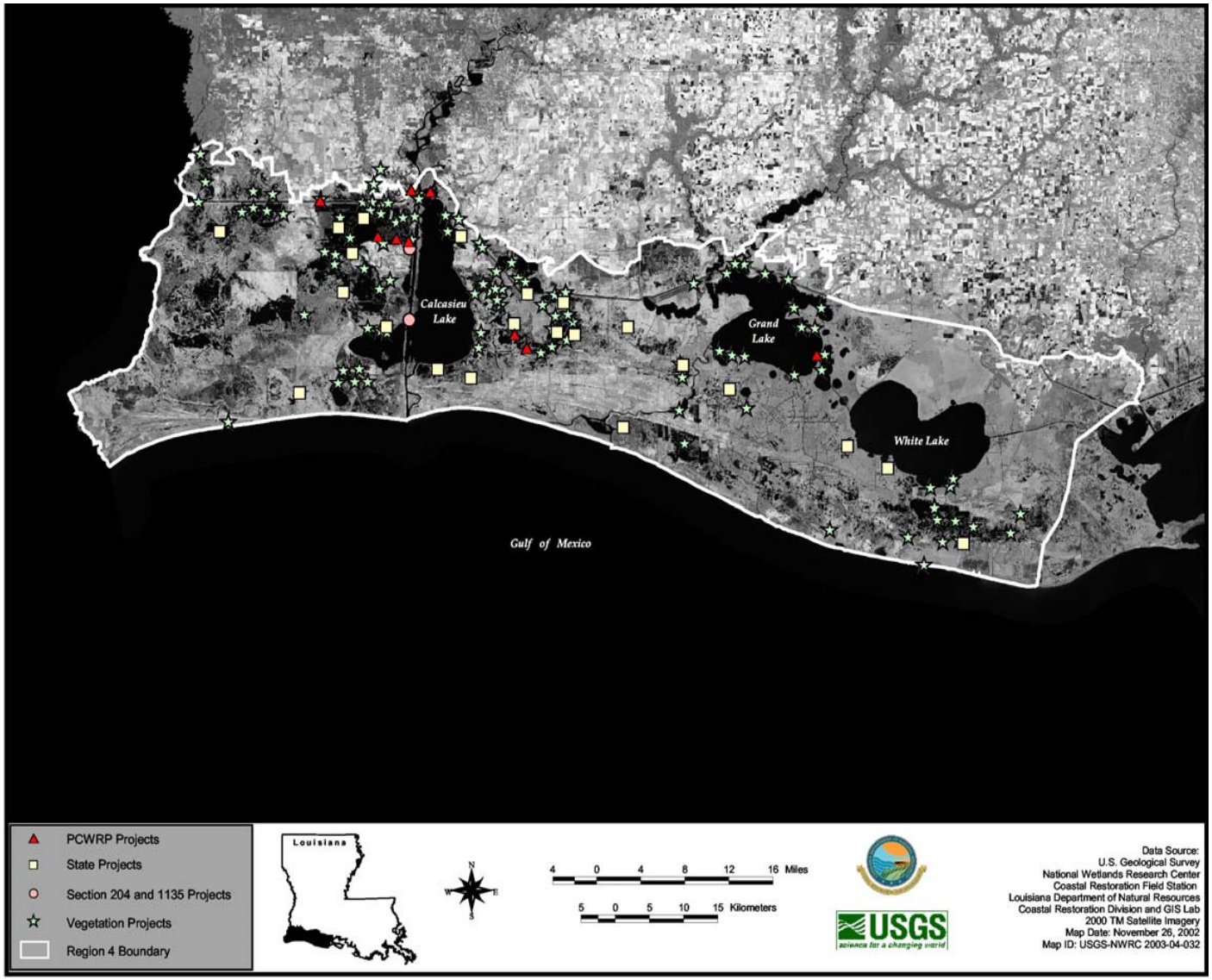


Figure 14. Location of PCWRP, State, Section 204 and 1135, and Vegetation projects in Coast 2050 Region 4.

Table 4. Restoration projects completed or pending in Coast 2050 Region 4.

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act	CS-01 (Complex Project)					Sen. Gerald J. Theunissen			N/A	N/A	N/A	N/A
		Holly Beach Project	SP	9	NRCS	Rep. Daniel T. Flavin	Cameron	8,600	N/A	N/A	N/A	N/A
		The purpose of the project is to protect existing coastal wetlands by restoring and maintaining the integrity and functionality of the remaining chenier/beach ridge. This will be accomplished through beach renourishment and monitoring of the shoreline response, and possible augmentation and/or enhancement of existing breakwaters. This project was reauthorized as an 11 list project, Holly Beach Sand Management Project, CS-31.										
	CS-04a (CS-04a)					Sen. Gerald J. Theunissen			C	1997	I	$3,719,926
		Cameron-Creole Maintenance	HR	3	NRCS	Rep. Daniel T. Flavin	Cameron	2,602	$0	$0	$3,736,718	$3,736,718
		Cameron-Creole Maintenance includes maintenance provisions for 19 miles of levee and five structures. This project is not monitored with Breaux Act funds, and only seeks to keep the levees and structures of the Cameron-Creole Watershed Management Project in good condition. The Cameron-Creole Watershed Management Project was constructed before the Breaux Act was authorized and was funded as a Louisiana State project under the auspices of NRCS's Small Watershed Program (PL-566).										
	CS-09 (CS-09)					Sen. Gerald J. Theunissen, W. L. Mount			I	2003*	I	$3,222,800
		Brown Lake Hydrologic Restoration	MM	2	NRCS	Rep. Daniel T. Flavin, R. Johns	Cameron	282	$234,700	$1,714,400	$1,252,790	$3,201,890
		Wetlands surrounding Brown Lake have suffered since the construction of the GIWW and the Calcasieu Ship Channel. These major navigation channels have allowed saltwater to enter surrounding marshes, exposing the wetlands to increased erosion from wind and waves. This project includes installing and maintaining water control structures to reduce fluctuations in salinity and water level, constructing levees and terraces to dissipate wave energy and promote the establishment of aquatic vegetation, and planting vegetation on exposed mudflats to help stabilize and protect eroding shorelines. Salinity, water level, and vegetation will be monitored to determine the project's effectiveness.										
	CS-11b (CS-11b)					Sen. Gerald J. Theunissen			C	2001	I	$4,800,000
		Sweet Lake/Willow Lake Hydrologic Restoration	SP/HR	5	NRCS	Rep. Daniel T. Flavin	Cameron	247	$522,400	$3,848,600	$639,762	$5,010,762
		As a result of waves and boat wakes, the GIWW spoil bank that protects the fragile marshes around Sweet Lake and Willow Lake has eroded and breached in several places. The GIWW has encroached on the lakes and their surrounding marshes, potentially creating one large open water body, exposing the marshes to saltwater and erosive processes. This project includes construction of rock embankments on the GIWW to close off the lakes, vegetation plantings to reduce erosion, and construction of earthen terraces combined with vegetation plantings in open water areas to promote growth of vegetation. Phase 1 was constructed in 2001 and Phase 2 in 2002. Vegetation and shoreline change is being monitored.										
	CS-17 (FCS-17)					Sen. Gerald J. Theunissen			C	1996	I	$660,460
		Cameron/Creole Plugs	HR	1	USFWS	Rep. Daniel T. Flavin	Cameron	865	$62,000	$387,930	$572,756	$1,022,686
		The implementation of this project will limit salinity influxes and excessive water pooling adjacent to Calcasieu Lake in Cameron/Creole Watershed project. This will be accomplished by the construction of two plugs within the interior borrow canal of the Calcasieu Lake Eastern Levee.										
	CS-18 (FCS-18)					Sen. Gerald J. Theunissen			C	1995	I	$4,895,780
		Sabine National Wildlife Refuge Erosion Protection	SP/HR	1	USFWS	Rep. Daniel T. Flavin	Cameron	5,542	$195,000	$1,011,000	$391,903	$1,597,903
		This project is intended to protect an impounded freshwater marsh by reinforcing an eroded levee with a rock dike.										

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act (continued)	CS-19 (FCS-19)	West Hackberry Vegetative Planting Demonstration	VP	1	NRCS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	N/A	C $24,266	1994 $125,461	I $96,514	$213,947 $246,241
		This project will reduce marsh erosion from interior open water wave energy using vegetation planting techniques as well as hay bale fences.										
	CS-20 (PCS-24)	East Mud Lake Marsh Management	MM	2	NRCS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	1,520	C $245,776	1996 $1,150,868	I $1,976,499	$2,903,635 $3,373,143
		The project will reduce wetland degradation by creating a hydrologic regime conducive to restoration, protection and enhancement of the Mud Lake area by using various types of water control structures and vegetation plantings. Structural components include culverts with flap gates, two variable-crest weirs, three earthen plugs, and the repair of existing levee. Salinity and water level will be monitored and emergent vegetation surveys will be conducted. Sediment erosion tables and feldspar plots will be used to measure elevational changes.										
	CS-21 (PCS-25)	Highway 384 Hydrologic Restoration	MM	2	NRCS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	150	C $90,160	2000 $237,520	I $740,829	$700,717 $1,068,509
		The Highway 384 project area along the northeast shoreline of Calcasieu Lake is experiencing wetland loss due to increased tidal volume, enlarged tidal routes, and saltwater intrusion. The project area has also been isolated from its major source of freshwater, the Calcasieu River Basin. The project seeks to improve hydrologic conditions with the installation of culverts, plugs, and weirs within the project area and to stabilize shorelines by rock-lining canals and planting vegetation. Salinity, shoreline change, and water level will be monitored and vegetation surveys will be conducted.										
	CS-22 (PCS-27)	Clear Marais Bank Protection	SP	2	USACE	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	1,067	C $581,123	1997 $2,232,708	I $903,612	$1,741,310 $3,717,443
		The integrity of an existing water management levee between the GIWW and the project area was threatened by increased tidal action and boat wakes. In response, a 35,000 foot limestone breakwater was constructed to prevent continued erosion of the levee and to prevent encroachment of the GIWW into the project area which consists of hundreds of acres of highly organic freshwater marsh. This project will be monitored with aerial photography and shoreline surveys.										
	CS-23 (XCS-47/48i)	Replace Sabine Refuge Water Control Structures at Headquarters Canal, West Cove Canal, and Hog Island Gully	MM	3	USFWS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	953	C $330,473	2000 $2,731,800	I $1,404,081	$4,581,454 $4,466,354
		This project was authorized to replace the water control structures on three major avenues of water passage that allow water to flow from saline areas into the project area's interior marshes. The new structures on Hog Island Gully, West Cove Canal, and Headquarters Canal will be operated to effectively discharge excess water, increase cross sectional area for movement of estuarine species, and help to curtail saltwater intrusion into the interior marshes. This project should help maintain intermediate and brackish vegetation communities and increase submerged aquatic vegetation. Salinity, water level, and vegetation will be monitored.										
	CS-24 (PCS-26i)	Perry Ridge Shore Protection	SP	4	NRCS	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	1,203	C $277,300	1999 $1,809,100	I $578,213	$2,223,518 $2,664,613
		Marsh loss in the vicinity of Perry Ridge has been caused by water level fluctuations and tidal scour from the GIWW as the result of breaches in the northern spoil bank. As the GIWW has widened and deepened, it has acted as a conduit for saltwater to enter the fragile surrounding marshes. To protect these marshes, a 12,000 linear-foot rock dike was constructed along the bank of the GIWW. This dike serves to protect the existing emergent wetlands, prevent further deterioration from erosion, prevent the widening of the GIWW, and reduce salinity spikes in the project area by keeping a pool of freshwater behind the rocks.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities: Engineering, Design, and Landrights	Activities: Construction	Activities: Operation, Maintenance, and Monitoring	Original Baseline Cost (top) and Current Cost Estimate (bottom)
Breaux Act (continued)	CS-25 (XCS-56)	Plowed Terraces Demonstration	SNT	4	NRCS	Sen. Gerald J. Theunissen, W. L. Mount Rep. Daniel T. Flavin, R. Johns	Cameron	N/A	C $62,714	2000 $213,800	I $45,425	$299,690 $321,939
		Severely eroded marshes in the project area, adjacent to the GIWW, have resulted from excessive water level fluctuations, saltwater intrusion, and wind-generated wave action. The soils of the area appear suitable for plow-constructed earthen terraces and provide an excellent opportunity to develop and demonstrate a non-traditional procedure for constructing earthen terraces in shallow water areas. These demonstration terraces are expected to serve as wave-stilling, sediment-trapping structures that provide a base for the establishment of emergent vegetation. Vegetation will also be planted. Terrace dimensions will be measured to determine total area of wetlands created and vegetation cover will be assessed.									
	CS-26 (XCS-36)	Compost Demonstration	MC	4	EPA	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	N/A	 $57,000	Deauthorized $292,785	 $75,548	$370,594 $425,333
		This project was authorized to evaluate the effectiveness of using tree trimmings as compostable material, using compost amended material in providing a growth medium for emergent vegetation, and determining settlement rates of the compost amended materials and tree trimmings. The project was officially deauthorized by the Breaux Act Task Force in January 2002.										
	CS-27 (XCS-48)	Black Bayou Hydrologic Restoration	HR	6	NMFS	Sen. Gerald J. Theunissen, W. L. Mount Rep. Ronnie Johns, D. T. Flavin	Cameron	3,594	C $893,171	2001 $4,057,420	I $1,431,920	$6,316,800 $6,382,511
		The marshes in the Black Bayou project area have been subjected to hydrological changes such as reduced freshwater inflow, increased magnitude and duration of tidal fluctuations, increased salinities, higher water levels, and excessive water exchange. This project includes the construction of spoil banks, weirs, plugs, and culverts which are designed to allow freshwater from the GIWW into the wetlands and to create a hydrologic head that increases freshwater retention time and reduces saltwater intrusion and tidal action in the wetlands. Vegetation will also be planted to decrease erosion and increase the establishment of emergent marsh. Salinity, shoreline change, and vegetation will be monitored.										
	CS-28 (XCS-48 (SA-1))	Sabine Refuge Marsh Creation, Increment 1	MC	8	USFWS/ USACE	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	993	C $612,140	2002 $6,577,618	I $210,552	$5,920,248 $7,400,310
		This project will construct approximately 27,000 feet of earthen partitions in shallow open water areas to serve as material retention dikes for five marsh creation cells. Dredged spoil slurry obtained from operations and maintenance dredging of the Calcasieu Ship Channel will be deposited in the containment cells during USACE maintenance dredging events. The first cycle was completed in January 2002.										
	CS-29 (CS-16)	Black Bayou Culvert Hydrologic Restoration	HR	9	NRCS	Sen. Gerald J. Theunissen, F. Hoyt Rep. Daniel T. Flavin	Cameron	540	I $889,729	No Date $0	NI $110,050	$799,823 $999,779
		This project was authorized to provide an avenue to remove excess water, which has contributed to marsh loss and shoreline erosion, from the Lakes Subbasin. This project's components include five 10 by 10-foot concrete box culverts with sluice gates to be installed in Black Bayou, and relocating Louisiana Hwy 384 over the culverts. Operation of the structure will be in coordination with Calcasieu Lock and the Schooner Bayou and Catfish Point water control structures.										
	CS-30 (PCS-26ii)	GIWW - Perry Ridge West Bank Stabilization	SP/MC	9	NRCS	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	83	C $389,904	2001 $2,739,217	I $38,907	$3,742,451 $3,168,028
		This project was authorized to install rip-rap along the northern bank of the GIWW in an area which was recently dredged to 30 feet to allow for the use of double barge traffic. This dredging has intensified bank erosion and has resulted in a breach of the bank, impacting interior wetlands.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act (continued)	CS-31	Holly Beach Sand Management Project	SP	11	NRCS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	8,600	I $1,177,000	2002* $17,444,500	I $631,005	$19,252,492 $19,252,500
		The purpose of the project is to protect existing coastal wetlands by restoring and maintaining the integrity and functionality of the remaining chenier/beach ridge. This will be accomplished through beach renourishment and monitoring of the shoreline response, and possible augmentation and/or enhancement of existing breakwaters. Salinity, water level and emergent vegetation will be monitored. Aerial photography and shoreline surveys will record shoreline change. This project was authorized as a 9 list project complex project, Holly Beach Project, CS-01.										
	CS-32	East Sabine Lake Hydrologic Restoration	HR	10	NRCS/ USFWS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	393	I $1,715,664	No Date $0	NI $66,145	$1,425,447 $1,781,809
		This project will utilize water control structures, shoreline protection, terraces, and vegetation plantings to restore the historical hydrologic regime to approximately 36,623 acres of the Sabine National Wildlife Refuge. Specific goals include reducing elevated salinities within fresh and intermediate marshes; reducing tidal scour; reducing erosion on the eastern shore of Sabine Lake; reducing the turbidity of open water areas; providing more marsh edge; and restoring and protecting marsh.										
	ME-04 (XME-21)	Freshwater Bayou Wetland Protection	HR/SP	2	NRCS	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	1,593	C $285,478	1998 $1,019,875	I $1,643,923	$2,770,093 $2,949,276
		This project was constructed in two phases. Phase I was completed in 1995 and consisted of a rock dike to protect the west bank of Freshwater Bayou Canal from shoreline erosion. Phase II of the project was completed in 1998 and included the construction of several water control structures to improve the capability of the interior wetlands to mediate the effects of increased salinity and higher water level fluctuations, on vegetation cover.										
	ME-08 (ME-08)	Dewitt Rollover Vegetative Plantings Demonstration	VP	1	NRCS	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	N/A	 $36,582	Deauthorized $51,460	 $3,722	$191,003 $91,764
		This demonstration project was authorized to investigate the ability of vegetation plantings of smooth cordgrass (*Spartina alterniflora*) to colonize a newly accreted mudflat, which will enhance sediment trapping and establish a buffer of vegetation to protect the beach from erosion. The vegetation was planted in a 1.5-mile-long strip on the Gulf of Mexico shoreline. After planting in 1994, the shoreline erosion rate remained consistent with the long-term range of erosion rates for this area, but no plants remained 10 months after planting. The project was officially deauthorized by the Breaux Act Task Force in February 1996 because no plants remained.										
	ME-09 (ME-09)	Cameron Prairie National Wildlife Refuge Shoreline Protection	SP	1	USFWS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	247	C $56,549	1994 $1,030,340	I $314,236	$1,177,668 $1,401,125
		A rock dike was constructed to protect approximately two miles of eroded levee separating a 640-acre area of freshwater marsh from the high turbidities and erosive forces of the GIWW.										
	ME-11 (PME-15)	Humble Canal Hydrologic Restoration	HR	8	NRCS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Vermilion	378	C $173,529	2002* $460,221	I $914,679	$1,526,136 $1,548,429
		The objective of this project is to restore historical hydrology to the project area by constructing three 48-inch flap-gated structures, which will continue to protect the area from saltwater intrusion from the Mermentau River and allow for drainage of high water levels from the marsh to the river.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities: Engineering, Design, and Landrights	Activities: Construction	Activities: Operation, Maintenance, and Monitoring	Original Baseline Cost (top) and Current Cost Estimate (bottom)
Breaux Act (continued)	ME-12 (PME-6)	Southwest Shore White Lake Demonstration	SP	3	NRCS	Sen. Gerald J. Theunissen Rep. Mickey Frith, D. T. Flavin	Vermilion	N/A	 $16,777	Deauthorized $20,025	 $72,001	$126,062 $108,803
		This project was authorized to protect 25 acres of fresh and intermediate marsh along the southwest shore of White Lake. The area is exposed to high wave energy and severe shoreline erosion. A total of 2,650 California bulrush (*Schoenoplectus californicus*) plants were installed in 1996, along the shoreline in three rows, and vegetation was monitored after planting. After 12 months, plant percent survival was 0.17 and erosion rates reached 11.7 feet/year. Water depth combined with high wind-generated wave energy were the likely causes of the planting's lack of success. The project was officially deauthorized by the Breaux Act Task Force in December of 1998 and is no longer monitored.										
	ME-13 (XME-29)	Freshwater Bayou Bank Stabilization	SP	5	NRCS	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	511	C $229,132	1998 $1,682,077	I $632,258	$3,998,919 $2,543,467
		The main cause of wetland loss in this project area is boat wake-induced erosion of the canal spoil banks and the fragile organic soils of the adjacent marsh along the west bank of Freshwater Bayou Canal. The subsequent impact of tidal scour and seasonal salinity spikes entering the canal exacerbates the loss of shoreline marsh in the project area. To decrease the erosion rate and slow wetland loss, a 23,193 linear-foot, continuous rock dike was installed parallel to the shoreline.										
	ME-14 (XME-22)	Pecan Island Terracing	SNT	7	NMFS	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	442	C $465,925	No Date $2,045,339	I $351,542	$2,185,900 $2,862,806
		This project will convert areas of open water back to vegetated marsh through the construction of earthen terraces in shallow water areas. Construction is expected in April 2003.										
	ME-16 (PME-07a)	Freshwater Introduction South of Hwy 82	HR/MC	9	USFWS	Sen. Gerald J. Theunissen Reps. D. Flavin, M. Frith	Vermilion	296	NI $597,098	No Date $0	I $129,125	$607,138 $726,223
		This project was authorized to address saltwater intrusion and lack of freshwater and sediment input in the project area. Project components include the installation of approximately eight water control structures, breaching spoilbanks in areas near Louisiana Hwy 82 to allow water to flow across the chenier, and the removal of plugs to facilitate water flow from the Lakes Sub-basin south into the Chenier Subbasin.										
	ME-17 (XME-42a)	Little Pecan Bayou Hydrologic Restoration	HR	9	NRCS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	144	I $1,400,600	No Date $0	NI $155,998	$1,245,278 $1,556,598
		This project will provide a means to remove excess water from the Lakes Subbasin by installing a water control structure within Little Pecan Bayou, constructing a freshwater conveyance channel with two water control structures through Grand Chenier Ridge to assist in excess water removal, and excavation of a collector channel within the marsh.										
	ME-18	Rockefeller Refuge Gulf Shoreline Stabilization	SP	10	NMFS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	920	I $2,393,615	No Date $0	NI $14,863	$1,929,888 $2,408,478
		This project entails the construction of a continuous, nearshore rock breakwater along the Gulf of Mexico shoreline. This structure will assist in halting Gulf shoreline retreat and direct marsh loss from Beach Prong to Joseph Harbor, protecting saline marsh habitat, and enhancing fish and wildlife habitat.										
	ME-19	Grand-White Lake Land Bridge Protection	SP	10	USFWS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	213	C $798,097	2003* $3,189,059	I $5,032,123	$9,631,124 $9,767,084
		This project will protect freshwater wetlands by stopping the erosion of the southeastern shoreline of Grand Lake and the western shoreline of Collicon Lake through hard structure shoreline stabilization and planted earthen terraces. It will allow for vertical accretion of sediment along the eroding shorelines as well as provide for the access of aquatic organisms, water, sediment, and nutrient exchange between the protected wetlands and Grand and Collicon Lakes.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Breaux Act (continued)	ME-20	South Grand Chenier Hydrologic Restoration Project	HR	11	USFWS	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Mermentau	440	I $2,869,279	No Date $0	NI $78,746	$2,358,420 $2,948,025
		This project will restore the Hog Bayou watershed hydrology through the use of dredged material to create two-200 acre cells that will stop saltwater intrusion into the project area. Freshwater, sediment and nutrients from the Mermentau River will also be introduced into the project area at two separate locations.										
	ME-21	Grand Lake Shoreline Protection	SP	11	USACE	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	495	I $1,032,157	No Date $0	NI $16,872	$1,049,029 $1,049,029
		This project will protect fragile interior marshes by stopping shoreline erosion through the construction of a 39,000-foot rock breakwater. The project will also create marsh through the deposition of dredged material between the breakwater and the existing shore.										
State	CS-01bc	Holly Beach	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	88	C	1991, 1992, 1993, 1994	I	$8,437,000
		The objective of this project is to protect the marsh north of the shoreline by expanding shoreline protection in phases from Ocean View, Louisiana to the east near Calcasieu Pass. A total of 34 breakwaters were constructed in 1991, 21 breakwaters were constructed in 1992, 21 breakwaters were constructed in 1993, and nine breakwaters were constructed in 1994 between Calcasieu Pass and Holly Beach, Louisiana.										
	CS-02	Rycade Canal	MM	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	1,200	C	1994	I	$516,474
		The project area continues to experience a significant loss of wetlands and an increase in salinities. Water control on the Rycade Canal would stop saltwater flow from Calcasieu Ship Channel through Black Lake into the wetland system to the south.										
	CS-04a-1	Cameron-Creole Structure Automation	HR	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	N/A	C	1999	I	$700,000
		This project consists of automating three existing water control structures along the east shore of Calcasieu Lake. These structures are remotely located and are difficult to manipulate. Automation of these structures will improve management capabilities in the Sabine National Wildlife Refuge.										
	ME-01	Pecan Island	FD	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	84	C	1992	I	$487,152
		The purpose of this project is to introduce freshwater from the north to counteract the saltwater intrusion from the south. The project consists of two water control structures and approximately 5,700 linear feet of earthen embankment needed to channel water from White Lake to the south marshes.										
		Blind Lake	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	N/A	C	1989	I	$173,433
		The purpose of this project was to prevent the Gulf Intracoastal Waterway from breaching into Blind Lake. The project consisted of placing 2,339 linear feet of limestone breakwater along the south side of the GIWW adjecent to Blind Lake. The second phase of this project included planting giant cutgrass (*Zizaniopsis miliacea*) along the inside of the breakwater to enhance the accretion process.										

(Region 4 continued)

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									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
State (continued)		Brannon Ditch	SP	N/A	N/A	Sen.Willie L. Mount Rep. Ronnie Johns	Calcasieu	480	C	1991	I	$12,440
		This project included the construction of wooden breakwater fences along 2,200 feet of the GIWW across from Brannon Ditch in Calcasieu Parish. This area has experienced shoreline erosion in excess of 25 feet/year. The breakwaters will reduce wave action from boats and the current from Brannon Ditch during periods of high discharge. Smooth cordgrass (*Spartina alterniflora*) was also planted behind the breakwaters in order to enhance accretion and increase the stability of this site.										
		Sabine Shellbank Stabilization	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	10	C	1990	I	$66,000
		The purpose of this project was to provide natural shoreline protection by using tidal currents to deposit clam shell on the shoreline. The benefits of this design over the use of permanent structures are lower cost, less disturbance of the natural habitat during construction, and allowing natural distribution of sediment and organisms without impediment.										
		Sabine Terraces	SNT	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	110	C	1991	I	$190,047
		A total of 128 earthen terraces were constructed in a checkerboard pattern and planted with smooth cordgrass (*Spartina alterniflora*) in open water areas of the Sabine National Wildlife Refuge. This will increase the length of marsh-water interface, re establish emergent marsh vegetation, reduce marsh fringe retreat by reducing wind-generated wave energy, increase overall primary productivity, and promote the deposition of suspended sediment.										
PCWRP		Cameron Creole	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	8	C	1990, 1992, 1994, 1997	I	$66,400
		Brush fences were constructed in 1991 to trap sediment and act as a barrier to slow saltwater intrusion in the interior marsh. Periodic maintenance has been done in subsequent years.										
		Kelso Bayou	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	1	C	1991, 1993, 1996, 1999	I	$20,745
		Brush fences were constructed in 1991 to re establish the eroded shoreline and promote sediment deposition along Kelso Bayou in Cameron Parish, Louisiana. Periodic maintenance has been done in subsequent years.										
		Portie Lakes	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	2	C	1992, 1996, 1998, 1999	I	$29,000
		Brush fences were constructed in 1992 to decrease erosion by trapping sediment along the shoreline and interior marsh adjacent to Portie Lake. Periodic maintenance has been done in subsequent years.										
		Ellender Bridge	SP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	2	C	1992, 1993, 1995, 1996, 1999	I	$39,061
		Brush fence were constructed in 1992 to protect marsh that was exposed to the GIWW. Periodic maintenance has been done in subsequent years.										
		Black Lake	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	2	C	1993-1996, 1998, 2000	I	$49,000
		Brush fences were constructed in 1993 to decrease wind fetch and prevent continued erosion of the Black Lake shoreline by wind-generated waves. Periodic maintenance has been done in subsequent years.										

(Region 4 continued)

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									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
PCWRP (continued)		Goose Lake	SP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	1	C	1994, 1995	I	$9,995
		Brush fences were constructed in 1994 along the GIWW at Goose Lake to slow the shoreline erosion at this intersection.										
		Collicon Lake	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	9	C	1996	I	$6,000
		Vegetation was planted along the shoreline of Collicon Lake to slow the shoreline erosion, promote sediment accumulation, and enhance fish habitat.										
		Turner Bay	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Calcasieu	2	C	1996-2000	I	$83,000
		Brush fences were constructed in 1996 to protect the interior shoreline of Turner Bay. Periodic maintenance has been done in subsequent years.										
		Cameron Creole #2	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	3	C	1998, 1999, 2001	I	$43,000
		Brush fences were constructed in 1998 to slow wave action and prevent continued shoreline erosion and erosion of the interior marsh.										
		Prien Lake	SP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Calcasieu	1	C	2001	I	$18,000
		Approximately 700 feet of brush fence were built along the shoreline of Prien Lake, located just south of Lake Charles, to reestablish the original shoreline.										
Vegetation		Grand Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	12	C	1986, 1987, 2001	N/A	$7,468
		A total of 2,520 smooth cordgrass *(Spartina alterniflora)* plants and 5,000 giant cutgrass *(Zizaniopsis miliacea)* plants were used to create a stand of emergent vegetation that will protect the shoreline from erosion and trap available sediment.										
		Brown Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	154	C	1987, 1989, 1992, 1995	N/A	$9,100
		A total of 37,000 smooth cordgrass *(Spartina alterniflora)* plants and 1,400 seashore paspalum *(Paspalum vaginatum)* plants were used to vegetate a marsh creation project area that utilized spoil disposal.										
		Rollover Bayou	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	23	C	1988	N/A	$4,408
		A total of 2,060 smooth cordgrass *(Spartina alterniflora)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced erosion and trap available sediment.										
		Sabine NWR	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	69	C	1988	N/A	$39,076
		A total of 15,000 smooth cordgrass *(Spartina alterniflora)* plants were used within the Sabine National Wildlife Refuge to provide a barrier against erosion.										

(Region 4 continued)

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									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Mallard Bay	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	10	C	1988, 1989	N/A	$5,387
		A total of 1,600 giant cutgrass *(Zizaniopsis miliacea)* plants and 250 California bulrush *(Schoenoplectus californicus)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced erosion and trap available sediment.										
		Black Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	36	C	1988, 1992	N/A	$32,500
		A total of 13,000 smooth cordgrass *(Spartina alterniflora)* plants were used to create a stand of emergent vegetation. This will provide a living barrier against wave-induced erosion and trap available sediment.										
		Lacassine	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	14	C	1989, 1990	N/A	$22,200
		A total of 1,500 giant cutgrass *(Zizaniopsis miliacea)* plants and 10,000 bald cypress *(Taxodium distichum)* trees were used to protect an island in Lacassine National Wildlife Refuge, located northwest of Grand Lake and adjacent to the GIWW.										
		Sabine Terraces	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	48	C	1990	N/A	$58,760
		A total of 20,800 smooth cordgrass *(Spartina alterniflora)* plants were used on 128 earthen terraces in order to stabilize the earthen terraces and create new marsh.										
		Blind Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	5	C	1990	N/A	$2,400
		A total of 400 giant cutgrass *(Zizaniopsis miliacea)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced erosion and trap available sediment.										
		Mud Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	322	C	1991, 1992, 1994, 1996	N/A	$225,906
		A total of 47,400 smooth cordgrass *(Spartina alterniflora)* plants were used in order to re-establish stands of emergent vegetation in the interior marshes, where erosion has negatively affected marsh expanse.										
		Brannon Ditch	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	11	C	1991	N/A	$12,543
		A total of 4,200 smooth cordgrass *(Spartina alterniflora)* plants and 100 roseau cane *(Phragmites australis)* plants were used in sediment accreted behind the state-funded shoreline protection project (Brannon Ditch) to create a stand of emergent vegetation. This vegetation will provide a living barrier against wave-induced erosion and trap available sediment.										
		White Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	8	C	1991, 1993	N/A	$5,156
		A total of 1,825 giant cutgrass *(Zizaniopsis miliacea)* plants were used to provide a vegetation buffer against wave-induced erosion.										
		Pecan Island	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	29	C	1992, 1996	N/A	$17,470
		A total of 4,000 seashore paspalum *(Paspalum vaginatum)* plants and 910 California bulrush *(Schoenoplectus californicus)* plants were used in order to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Cameron Creole	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	28	C	1992, 2001	N/A	$36,716
		A total of 12,000 smooth cordgrass (*Spartina alterniflora*) plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and trap available sediment.										
		Walker GIWW	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	9	C	1992	N/A	$5,424
		A total of 800 smooth cordgrass *(Spartina alterniflora)* plants were used to provide a vegetation buffer against wave-induced erosion.										
		Doland Lease	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	4	C	1992	N/A	$3,771
		A total of 1,195 California bulrush *(Schoenoplectus californicus)* plants were used in order to create a stand of emergent vegetation that will provide a living barrier against wave-induced erosion and trap available sediment.										
		Little Pecan Bayou	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	23	C	1994	N/A	$13,560
		A total of 2,000 smooth cordgrass *(Spartina alterniflora)* plants were used to re-establish stands of emergent vegetation in the interior marsh, where erosion has negatively affected marsh expanse.										
		Shell Western	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	23	C	1994	N/A	$13,831
		A total of 2,040 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Tebo Point	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	33	C	1994, 1995, 1997	N/A	$18,577
		A total of 2,740 California bulrush *(Schoenoplectus californicus)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and trap available sediment.										
		Boudreaux Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	23	C	1994	N/A	$13,560
		A total of 2,000 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Sweet Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	18	C	1995, 1997	N/A	$9,899
		A total of 2,460 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Vermilion Corp #1	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	24	C	1995	N/A	$7,160
		A total of 1,056 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Vermilion Corp #2	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	24	C	1995	N/A	$7,160
		A total of 1,056 California bulrush (*Schoenoplectus californicus*) plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		ARCO Road Marsh	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	8	C	1995	N/A	$3,675
		A total of 542 California bulrush *(Schoenoplectus californicus*) plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Black Bayou Marsh	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	47	C	1995, 1997	N/A	$26,713
		A total of 1,940 California bulrush *(Schoenoplectus californicus)* plants and 2,000 smooth cordgrass *(Spartina alterniflora)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Grosse Savanne Marsh	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	202	C	1995, 1997, 1998, 1999, 2000, 2001	N/A	$130,825
		A total of 16,755 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Sabine GIWW	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	10	C	1995	N/A	$6,102
		A total of 900 smooth cordgrass *(Spartina alterniflora)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and trap available sediment.										
		Savanne Neuvelle Marsh	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	7	C	1995	N/A	$3,390
		A total of 500 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Umbrella Bay	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	37	C	1995, 1998	N/A	$20,787
		A total of 3,066 California bulrush *(Schoenoplectus californicus)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and trap available sediment.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		West Gum Cove Marsh	VP	N/A	N/A	Sen. Theunissen and Mount Reps. D. T. Flavin and R. Johns	Calcasieu/ Cameron	11	C	1995	N/A	$5,424
		A total of 800 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		West Hackberry Marsh	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	10	C	1995	N/A	$5,085
		A total of 750 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Webb Gully	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	11	C	1995	N/A	$5,560
		A total of 820 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Welfare Bridge Marsh	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	11	C	1995	N/A	$5,424
		A total of 800 California bulrush *(Schoenoplectus californicus)* plants were used to create a living fence which will reduce wind-generated wave action, reduce turbidity, encourage submerged aquatic vegetation, trap sediment, and increase food production for wildlife.										
		Goose Lake	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	22	C	1997	N/A	$12,679
		A total of 1,120 smooth cordgrass *(Spartina alterniflora)* plants and 750 California bulrush *(Schoenoplectus californicus)* plants were used to protect the levee of the GIWW from eroding further, to slow water movement in the interior marsh , and to prevent the loss of marsh sediment.										
		Collicon Lake	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	95	C	1997, 1999	N/A	$56,206
		A total of 8,290 California bulrush *(Schoenoplectus californicus)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and trap available sediment.										
		Platform #1	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	25	C	1997	N/A	$14,916
		A total of 2,200 California bulrush *(Schoenoplectus californicus)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and trap available sediment.										
		Black Bayou Cutoff	VP	N/A	N/A	Sens. G. J. Theunissen and W. L. Mount Reps. D. T. Flavin and R. Johns	Calcasieu/ Cameron	13	C	1997	N/A	$7,797
		A total of 1,150 smooth cordgrass *(Spartina alterniflora)* plants were used to re-vegetate the old banks of the bayou. This re-vegetation process will provide a natural passive hydrologic baffle that will slow tidal exchange and provide a seed source for natural regeneration of emergent vegetation.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		West Alkali Ditch	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	32	C	1997, 1999	N/A	$18,984
		A total of 2,800 smooth cordgrass *(Spartina alterniflora)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and trap available sediment.										
		Marseillaise Bayou Marsh	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	50	C	1997, 1998	N/A	$29,290
		A total of 4,320 California bulrush (*Schoenoplectus californicus*) plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and to re-establish areas of emergent vegetation in a large area of open, shallow water.										
		Platform #2	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	21	C	1998	N/A	$12,204
		A total of 1,800 California bulrush *(Schoenoplectus californicus)* plants were used to create a stand of emergent vegetation that will reduce wave energy in a large open area of eroded marsh.										
		Vermilion Corp #3	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Mickey Frith	Vermilion	2	C	1998	N/A	$1,356
		A total of 200 California bulrush *(Schoenoplectus californicus)* plants were used to create a stand of emergent vegetation that will reduce the erosion along the backside of a protection levee that is preventing high salinities from entering a freshwater marsh.										
		Prien Lake Marsh	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	14	C	1998	N/A	$8,136
		A total of 1,200 smooth cordgrass *(Spartina alterniflora)* plants were used to create a stand of emergent vegetation that will provide a living barrier against wave-induced shoreline erosion and to re-establish areas of emergent vegetation in a large area of open, shallow water.										
		Cotton Well Road	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	25	C	1999	N/A	$14,916
		A total of 2,200 smoth cordgrass *(Spartina alterniflora)* plants were used to provide a living fence that will reduce fetch, reduce water movement, and provide a sediment source in order to accelerate the regeneration of this eroded marsh.										
		Turner's Bay	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	14	C	1999	N/A	$8,136
		A total of 1,200 smooth cordgrass *(Spartina alterniflora)* plants were used to provide a living barrier against wave-induced shoreline erosion and to trap available sediment.										
		Kelso Bayou	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	3	C	1999	N/A	$2,034
		A total of 300 smooth cordgrass *(Spartina alterniflora)* plants were used to provide a living barrier against wave-induced shoreline erosion and to trap available sediment.										
		Deepwater Cutgrass Demonstration	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	14	C	2000	N/A	$8,136
		A total of 1,200 giant cutgrass *(Zizaniopsis miliacea)* plants were used to determine if cutgrass can successfully be planted in open and deep (18-24 inches) waters, to create emergent vegetation, and to create a living barrier against wind and wave erosion.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Mermentau River	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	27	C	2000	N/A	$15,730
		A total of 2,320 smooth cordgrass (*Spartina alterniflora*) plants were used to protect and slow erosion of newly rebuilt and critically eroding sections of levee.										
		X-mas Tree Fence Demonstration	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	2	C	2000	N/A	$1,243
		A total of 300 roseau cane *(Phragmites australis)* were used to establish living vegetation within a section of brush fence. This vegetation would assist in sediment trapping, and serve as a wind break. If successful, this would eliminate the need for yearly maintenance.										
		California Bulrush Sonde Demonstration	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	12	C	2000	N/A	$6,780
		A total of 1,000 California bulrush *(Schoenoplectus californicus)* plants were used to monitor the effects of variations in salinity and duration on growth and vigor in plants.										
		GIWW Cutgrass Demonstration	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	9	C	2000	N/A	$5,424
		A total of 800 giant cutgrass *(Zizaniopsis miliacea)* plants were used to determine the suitability of planting giant cutgrass in various soil types, and to establish emergent vegetation in an actively eroding area. This will aid in wave reduction and sediment trapping.										
		West Prairie Ridge	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	34	C	2000	N/A	$20,340
		A total of 3,000 California bulrush *(Schoenoplectus californicus)* plant were used to provide a seed source for natural regeneration of emergent vegetation and to provide a natural, living barrier of emergent vegetation. This will protect against wind fetch and aid in decreasing water turbidity.										
		Gum Cove Ferry GIWW	VP	N/A	N/A	Sen. Willie L. Mount Rep. Ronnie Johns	Calcasieu	12	C	2000	N/A	$6,780
		A total of 1,000 smooth cordgrass *(Spartina alterniflora)* plants were used to provide a natural living barrier against wave-induced shoreline erosion on the south bank of the GIWW.										
		Smooth Cordgrass Maintenance Demonstration	VP	N/A	N/A	Sen. Willie L. Mount Rep. Daniel T. Flavin	Cameron	N/A	C	2001	N/A	$1,539
		This project, located just east of Black Bayou, was initiated to determine the effectiveness of fertilizing smooth cordgrass (*Spartina alterniflora*) on constricted terraces which are not exhibiting vigorous growth. Approximately 30,750 feet of terraces were fertilized with three different fertilizing regimes.										
		Jim Erbelding Beach	VP	N/A	N/A	Sen. Willie L. Mount Rep. Daniel T. Flavin	Cameron	4	C	2001	N/A	$2,089
		A total of 350 stems of bitter panicum (*Panicum amarum*) were planted to stabilize dunes located on the east side of Jim Erbelding Road. This project was designed to test the effectiveness of trapping and accumulating sand with the sole use of vegetation.										
		Superior Canal/Grand Lake	VP	N/A	N/A	Sen. Willie L. Mount Rep. Daniel T. Flavin	Cameron	11	C	2001	N/A	$7,479
		A total of 1,000 giant cutgrass (*Zizaniopsis miliacea*)plants were placed to decrease shoreline erosion along Grand Lake shoreline, near Superior Canal.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		California Bulrush Sonde Demonstration 2	VP	N/A	N/A	Sen. Willie L. Mount Rep. Daniel T. Flavin	Cameron	7	C	2001	N/A	$5,751
		A total of 660 California bulrush (*Schoenoplectus californicus*) plants were placed near the Highway 384 (CS-21) project area to determine the tolerance of bulrush in high salinity marshes.										
		M.O. Miller	VP	N/A	N/A	Sen. Willie L. Mount Rep. Daniel T. Flavin	Cameron	46	C	2001	N/A	$21,266
		A total of 4,000 smooth cordgrass (*Spartina alterniflora*) plants were placed just south of Grand Chenier along existing infrastructure such as roads, levees, and canals. This project was constructed to reduce shoreline erosion, trap available sediment, and provide additional habitat for both fish and wildlife.										
		GIWW Pontoon Bridge	VP	N/A	N/A	Sen. Willie L. Mount Rep. Mickey Frith	Cameron	11	C	2001	N/A	$7,023
		A total of 1,000 giant cutgrass (*Zizaniopsis miliacea*) plants were placed along the GIWW shoreline, south of the pontoon bridge on Highway 384. This project was constructed to determine the specific habitat requirements of giant cutgrass and its tolerance of deep water, loamy soils, and high wave energies.										
		Choupique Bayou	VP	N/A	N/A	Sen. Willie L. Mount Rep. Daniel T. Flavin	Cameron	2	C	2001	N/A	$1,277
		A total of 150 smooth cordgrass (*Spartina alterniflora*) plants were placed along Bayou Choupique to reduce bank erosion, trap available sediment, provide wildlife and fisheries habitat, and to provide a seed source for natural regeneration in an area with little vegetation.										
		DU Terrace Demo	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Gary L. Smith, Jr.	Cameron	107	C	2002	N/A	$70,000
		A total of 5,500 smooth cordgrass (*Spartina alterniflora*) plugs and a total of 6,000 smooth cordgrass trade gallon containers were placed on newly built dragline terraces; the effectiveness of trade gallon containers on 5 foot spacing versus bare root plugs on 3 foot spacing will be compared, and which form of fertilzer application, if any, is effective in increasing growth rate of smooth cordgrass will be determined; a total of 46,500 linear feet were planted.										
		Grosse Savanne Mar. #7	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Dale Erdey	Cameron	11	C	2002	N/A	$8,000
		A large open water area of eroded marsh was planted with 1,000 trade gallon containers of California bulrush (*Schoenoplectus californicus*) to create stands of emergent vegetation that will provide a living barrier against wave action, help improve water clarity, establish areas of emergent vegetation in a large area of open, shallow water, and provide a seed source for natural regeneration of emergent vegetation; 5,000 linear feet were planted.										
		Trident Dock	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Henry Powell	Cameron	6	C	2002	N/A	$4,400
		A total of 550 trade gallon containers of smooth cordgrass (*Spartina alterniflora*) were planted in an extremely high-wave-energy area to demonstrate its ability to withstand extremely strong wave energies, to establish emergent vegetation in an actively eroding area, to aid in wave reduction and sediment trapping, and to provide wildlife and fisheries habitat; 2,750 linear feet were planted.										
		GIWW - Pontoon Bridge	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Gary L. Smith, Jr.	Cameron	11	C	2002	N/A	$8,000
		A total of 1,000 trade gallon containers of giant cutgrass (*Zizaniopsis miliacea*) were planted in deeper-water areas (1.5 - 2 ft) with loamy soils. This was done to determine the suitability of planting giant cutgrass in deeper water areas with loamy soils and significant wave energy. Other objectives are to establish emergent vegetation in an actively eroding area, to aide in wave reduction and sediment trapping, and to provide wildlife and fisheries habitat; 5,000 linear feet were planted.										

(Region 4 continued)

Program	Project Number State/Federal	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Parish	Anticipated Acres Benefitted	Activities			Original Baseline Cost (top) and Current Cost Estimate (bottom)
									Engineering, Design, and Landrights	Construction	Operation, Maintenance, and Monitoring	
Vegetation (continued)		Mud Lake Peninsula	VP	N/A	N/A	Sen. Gerald J. Theunissen Rep. Dale Erdey	Cameron	27	C	2002	N/A	$9,360
		This demonstration project involved the planting of 780 plugs of smooth cordgrass (*Spartina alterniflora*), 780 plugs of marshhay cordgrass (*Spartina patens*), and 780 plugs of salt grass (*Distichlis spicata*) in a dead area of marsh to determine which species would be best able to re-vegetate this marsh. The ultimate purpose is to re-establish vegetation in areas that are completely bare of any vegetation; a total of 11,700 linear feet were planted.										
Section 204/1135		Brown Lake	DM/ MC	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	315	C	1999	N/A	$1,132,435
		Approximately 1.6 million cubic yards of dredged material was pumped to create 315 acres of land at an elevation conducive to marsh creation in the Brown Lake area near the Calcasieu River, 16 miles south of Lake Charles, Louisiana.										
		Calcasieu River & Pass Phase I	DM/ MC	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	1,070	C	1992	N/A	$1,560,804
		This Section 204 project provide for the disposal of dredged material removed from the area between mile 7.5 and 11.5 of the Calcasieu Ship Channel. A total of 4 million cubic yards of material were deposited in three phases within the Sabine National Wildlife refuge at an elevation conducive to marsh creation.										
		Calcasieu River & Pass Phase II	DM/ MC	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	1,070	C	1996	N/A	$1,560,804
		This Section 204 project provide for the disposal of dredged material removed from the area between mile 7.5 and 11.5 of the Calcasieu Ship Channel. A total of 4 million cubic yards of material were deposited in three phases within the Sabine National Wildlife refuge at an elevation conducive to marsh creation.										
		Calcasieu River & Pass Phase III	DM/ MC	N/A	N/A	Sen. Gerald J. Theunissen Rep. Daniel T. Flavin	Cameron	1,070	C	1999	N/A	$1,560,804
		This Section 204 project provide for the disposal of dredged material removed from the area between mile 7.5 and 11.5 of the Calcasieu Ship Channel. A total of 4 million cubic yards of material were deposited in three phases within the Sabine National Wildlife refuge at an elevation conducive to marsh creation.										

(Region 4 continued)

Program: Breaux Act=Coastal Wetlands Planning Protection and Restoration Act (CWPPRA); State=Restoration projects funded entirely by the State of Louisiana through the Coastal Restoration Division; PCWRP=Parish Coastal Wetlands Restoration Program; Vegetation=DNR/NRCS/SWCC Vegetation Planting Program; Section 204/1135= Water Resource Development Act Sections 204 and 1135 beneficial use of dredged material projects; WRDA=Water Resources Development Act; Mitigation=mitigation projects implemented by the Coastal Restoration Division.

Project Type: HR=Hydrologic Restoration; DM=Beneficial Use of Dredged Material; MM=Marsh Management; MC=Marsh Creation; SP=Shoreline Protection; FD=Freshwater Diversion; VP=Vegetation Planting; SNT=Sediment and Nutrient Trapping.

PPL: Priority Project List (as authorized by the Breaux Act Task Force).

Agency/Sponsor: NRCS=Natural Resources Conservation Service; USFWS=U.S. Fish and Wildlife Service; USACE=U.S. Army Corps of Engineers; EPA=Environmental Protection Agency; NMFS=National Marine Fisheries Service.

Anticipated Acres Benefitted: N/A for Breaux Act demonstration and deauthorized projects.

Activities: C=Completed; I=Initiated; NI=Not Initiated; N/A=Not Applicable; a date in the construction column indicates construction completion date or anticipated date (*).

Original Baseline Costs and Current Cost Estimates for Breaux Act projects are from the USACE. Costs for other restoration programs are from DNR's Contract and Budget Section. Original Baseline Cost and Current Cost Estimate both include contingency funds. Breaux Act PPL 9 project costs are for Phase I only. Vegetation program project costs are estimated based on plant size and quantity.

Table 5. Coastwide restoration projects and programs.

Program	Project Number	Project Name	Project Type	PPL	Agency/ Sponsor	Senator/Representative	Original Baseline Cost (top) and Current Cost Estimate (bottom)
State	LA-01	LDNR Dedicated Dredging Program	DM	N/A	LDNR	N/A	$1,000,000
						N/A	$3,000,000
		The goal of this program is to use a small, mobile hydraulic dredge along inland waterways in Louisiana's coastal zone to deposit dredged material, and thereby nourish and/or rebuild threatened coastal marshes adjacent to the waterways. To date, the following two projects have been constructed: the Lake Salvador Project consisting of two sites totaling 28 acres; and the Jefferson Parish Wetlands Project consisting of three sites totaling 66 acres. Further details on this program are available in Table 2.					
Breaux Act	LA-02 (CW-7)	Nutria Harvest for Wetland Restoration (Demonstration)	N/A	6	USFWS	N/A	$2,140,000
						N/A	$2,140,000
		This project will enable the Louisiana Department of Wildlife and Fisheries to establish an economic incentive program to trap and control nutria, which are contributing to coastal wetland loss, by promoting the consumption of nutria meat.					
	LA-03b	Coastwide Nutria Control Program	N/A	11	NRCS	N/A	$12,945,696
						N/A	$13,012,998
		The goal of the project is to eliminate or significantly reduce damage to coastal wetlands resulting from nutria herbivory. The implementation of an incentive payment program, beginning with the 2002-2003 trapping season, will compensate licensed trappers $4 for each nutria tail delivered to a collection center. It is expected that the incentive payments will result in an approximate harvest of 400,000 nutria, thereby reducing herbivory damage to coastal wetlands.					
Other	LA-04	Shoreline Monitoring Effort with FEMA	N/A	N/A	LSU	N/A	N/A
						N/A	$418,790
		The goal is to provide sea-state information including wave height, period, direction of propagation, water level, surge, current speed and direction, and meteorological conditions on a real-time basis. LDNR has entered into a cooperative agreement with LSU to assemble, test, deploy, operate and maintain 2 WAVCIS stations located in Terrebonne Bay and 1.2 miles off the coast of Timbalier Island. The stations will be maintained for 2 years and will aid in evaluating the effects of barrier island restoration efforts in Barataria and Terrebonne basins and providing information for emergency response to storms and oil spills.					
		Coastal Wetlands Public Outreach	N/A	N/A	N/A	N/A	N/A
						N/A	$300,000
		In cooperation with LDNR's Public Information Office and the Breaux Act Public Outreach Coordinator, the CRD has actively participated in educating the public about Louisiana's rapidly eroding coastal wetlands, the many impacts this has on the state and nation, and what has been done and is being done to curtail the loss of this irreplaceable natural resource. The dissemination of printed and video materials, website maintenance, a traveling Save LA Wetlands exhibit, and participation in numerous conferences, public events, and schools constitute our primary outreach efforts. The CRD has contributed $50,000 annually to public outreach since FY1996-97.					
		NRCS Biomass Production Program	VP	N/A	NRCS	N/A	$80,000
						N/A	$80,000
		The NRCS-LDNR/CRD Biomass Program is a multiyear programmatic initiative to accelerate the collection, testing, and release of important coastal wetland restoration plants. The Biomass Program began in 1999 in conjunction with the LDNR/CRD Small-Dredge Program with emphasis on plant performance and dedicated dredged sediment. The Biomass Program has expanded to include plant collections, field trials, and new planting techniques for severely impacted coastal wetlands, such as those recently experienced in the 2000 Brown Marsh die-back. Currently, NRCS through its Plant Materials Program has collected, tested, and maintained over 200 ecotypes of smooth cordgrass (*Spartina alterniflora*). In addition, the program is accelerating work with marshhay cordgrass (*Spartina patens*), gulf cordgrass (*Spartina spartinae*) and a number of potentially important coastal woody species. This program is an important coastal restoration initiative that is advancing coastal wetland plant technology development and transfer.					
		NWRC Biomass Production Program	VP	N/A	NWRC	N/A	$384,500
						N/A	$1,007,600
		This multi-year cooperative agreement will study productivity of endemic wetland plants, with the goal of identifying specific environmental conditions for maximum growth of a number of varieties (i.e., cultivars) within four plant species. The information obtained will facilitate matching plant species and varieties to expected environmental conditions at restoration sites, thereby increasing the likelihood of successful revegetation efforts. The project was initiated in June 1998, and the first-year tasks consisted of defining an experimental design, acquiring necessary equipment and supplies, and collecting and propagating plant specimens. These tasks provided the basis for the second year of the project (1999-2000), during which an experiment to quantify plant growth performance relative to varying salinities and water levels was conducted in the greenhouse environment. The third year (2000-2001) greenhouse experiment focused on plant growth under various soil conditions at two salinity levels. Late in year 3 and into year 4 (2001-2002), a field trial was initiated on dredged material deposited in brackish marsh in the Barataria Basin. The field trial consisted of planting replicate plots using six varieties of the four plant species used in the previous greenhouse experiments. Along with growth rate of the experimental plants, parameters being monitored include the rate of natural succession on dredged material, plant species composition in nearby natural marsh, and sedimentation rates and water quality at the dredged and natural sites. During year 5 (2002-2003) plant growth, community dynamics, and site environmental parameters at the experimental site will be monitored over a second growing season and into the spring of 2003. A final project report will be prepared.					

Program: Breaux Act=CWPPRA; State=Restoration projects funded entirely by the State of Louisiana through the Coastal Restoration Division.

Project Type: DM=Beneficial Use of Dredged Material; VP=Vegetation Planting; N/A=Not Applicable.

PPL: Priority Project List (as authorized by the Breaux Act Task Force).

Agency/Sponsor: LDNR=Louisiana Department of Natural Resources; NRCS=Natural Resources Conservation Service; USFWS=U.S. Fish and Wildlife Service; LSU=Louisiana State University; NWRC=National Wetlands Research Center.

Original Baseline Costs and Current Cost Estimates for Breaux Act projects are from the USACE. Costs for other restoration programs are from DNR's Contract and Budget Section. Original Baseline Cost and Current Cost Estimate both include contingency funds.

Table 6. Inactive state projects*.

Project Number	Project Name	Parish
BA-03-b	Naomi (LaReussite) Diversion Enlargement of Capacity	Jefferson/ Plaquemines
BA-04-b	West Pointe a la Hache Diversion Enlargement	Plaquemines
BA-06	U.S. Highway 90 to GIWW Wetland Outfall Management	Plaquemines
BA-07	Couba Island-Restore Canal Closure	St. Charles
BA-08	Lake Cataouatche Shore Protection	St. Charles
BA-09	Salavador WMA Gulf Canal Project	St. Charles
BA-11/12	Tiger/Red Pass Diversion and Outfall Management and Grand/Spanish Pass Diversion	Plaquemines
BA-13	Hero Canal Diversion	Plaquemines
BA-14	Little Lake Marsh Management	Jefferson
BA-17-a	City Price Diversion - Home Place	Plaquemines
BA-17-b	City Price Diversion - Happy Jack	Plaquemines
BS-01-a	Bohemia Diversion Structure - Operation of Existing Structure	Plaquemines
BS-01-b	Bohemia Diversion Structure Outfall Management	Plaquemines
BS-04-b	White's Ditch Diversion Siphon Enlargement	Plaquemines
BS-05	Bayou LaMoque Diversion Outfall Management	Plaquemines
CS-04-b	Cameron-Creole Watershed Freshwater Introduction from GIWW	Cameron
CS-05-a	Sabine Freshwater Introduction	Cameron
CS-06	Black Lake South Shore Protection	Cameron
CS-07	Black Lake West Shore Protection	Cameron
CS-08	Black Lake North Marsh Management	Cameron
CS-10	Grand Lake Ridge Marsh Management	Cameron
CS-11-a	Sweet Lake/GIWW Bank Restoration (Phase I)	Cameron
CS-12	Black Bayou Ridge Freshwater Introduction	Cameron
CS-13	Back Ridge Freshwater Introduction	Cameron
CS-14	Tripod Bayou Control Structure	Cameron
CS-15	Boudreaux/Broussard Marsh Protection	Cameron
CS-16	Black Bayou Culverts	Cameron
ME-02	Hog Bayou Wetland Restoration and Enhancement	Cameron
ME-05	White Lake Shore Protection	Vermilion
ME-06	Big Burn Marsh Management	Cameron
ME-07	Deep Lake Marsh Protection	Vermilion
ME-10	Sawmill Canal Water Management (PD)	Cameron
MR-02	Pass a Loutre Sediment Fencing	Plaquemines
MR-04	Tiger Pass Wetland Creation(PD)	Plaquemines
MR-05	Pass a Loutre Sediment Mining (PD)	Plaquemines
PO-01-b	Violet Siphon Diversion Enlargement	St. Bernard
PO-01-c	Violet Siphon Diversion Outfall Management	St. Bernard
PO-02-b	Alligator Pointe Shore Protection	Orleans
PO-03-a	LaBranche Wetland Complete Management Plan	St. Charles
PO-05-a	SE Lake Maurepas Wetland - Reduce Ponding of Water	St. John
PO-05-b	SE Lake Maurepas Wetland - Small Diversion of Miss. River Water	St. John
PO-07	North Shore Wetland Marsh Restoration	St. Tammany
PO-11	Cutoff Bayou Marsh Management	Orleans
PO-12	West LaBranche Wetland Management	St. Charles
PO-13	Tangipahoa/Ponchartrain Shore Protection	Tangipahoa
PO-14	Green Point/Goose Point Marsh Restoration	St. Tammany
PO-15	Alligator Point Marsh Restoration	Orleans
TE-05-a	Grand Bayou Wetland Protection and Enhancement	Terrebonne

(continued)

Project Number	Project Name	Parish
TE-08	Bayou Pelton Wetland Protection	Terrebonne
TE-09	Bully Camp Marsh Management	Lafourche
TE-11	Isle Dernieres Cut Closure	Terrebonne
TE-12	Bird Island Restoration	Terrebonne
TE-13	Trinity Bayou Pilot Project	Terrebonne
TE-16	St. Louis Wetland Restoration	Terrebonne
TE-21	Falgout Canal South Wetland Creation (PD)	Terrebonne
TV-01-b	Shark Island/Weeks Bay Protection	Iberia
TV-05-1	Marsh Island Canal Backfilling - Increment 1	Iberia
TV-07	Marsh Island Sediment Fencing - Restoration	Iberia
TV-08	Redfish Point Shore Protection	Vermilion
TV-10	Weeks Bay Shore Restoration	Iberia

* Projects for which no funding exists.

CONCLUSIONS

Since 1989, the Coastal Restoration Division and its partners have been engaged in an effort to restore, preserve, and enhance Louisiana's coastal wetlands, which are disappearing at a rate of 25 to 35 square miles per year. To date, the CRD has authorized 424 restoration projects throughout the coastal zone which are intended to ameliorate the state's wetland loss. As of December 2002, the CRD had fully implemented 59 Breaux Act projects, 50 state projects, 24 federal projects, and installed over 7 miles of Christmas tree fences and 456 miles of vegetation plantings. Despite these efforts, land loss remains a significant problem in Louisiana.

Restoration project types range from large freshwater diversion projects, which divert a portion of a river's flow, sediment, and nutrients, into entire basins, to small vegetation projects, which involve planting salt- and flood- tolerant marsh plants to stabilize eroding soils.

Among those projects already constructed, many have proven to be successful. Examples include beneficial use of dredged material and marsh creation projects, which have created vegetated marsh habitat in areas that previously contained deteriorated wetlands or open water. Sediment diversion projects have also been successful in creating marsh in the form of crevasse-splays in areas that were once shallow open water. Data collected from these projects are not only used to evaluate the effectiveness of individual restoration projects, but also to guide the planning and design of future projects.

The CRD and its partners have worked tirelessly to determine the most efficient and productive manner to address Louisiana's catastrophic land loss problem. Recent cooperative initiatives like the Louisiana Coastal Area feasibility study, the Governors Commission on Coastal Restoration and Conservation, the project Ecological Review process, and the adaptive management review are aimed at improving the ability to design and implement effective coastal restoration projects. Also the fledgling America's Wetland campaign will educate the Nation and solicit national support for Louisiana's vanishing coast. Furthermore, technological advances have enabled the public and scientific professionals to acquire information and data on all restoration projects through the CRD GIS web page and Document Referencing System. These most recent developments, and the continued dedication of scientists, engineers, landowners, and the public will ensure that Louisiana's coast will not disappear without a fight.

Knowledge is a powerful tool in the conservation of natural resources, not only for wetland scientists and project engineers, but also for concerned citizens. By remaining aware and informed of coastal problems and restoration efforts, individuals can help preserve Louisiana's wetlands.

Show your support by promoting wetland restoration efforts, working with non-governmental coastal organizations, attending local meetings, and conserving wetland resources by following fishing and hunting regulations. Help by participating in beach clean-ups, environmental education programs, and in LDNR's Christmas tree program either by donating your tree after the holiday season or by volunteering your time to repair and create Christmas tree brush fences. Through concern and participation, citizens can play a role in the success of wetland restoration programs and can personally contribute toward the goal of saving a national treasure.

Please visit our website at www.saveLAwetlands.org for more information regarding LDNR restoration projects, as well as environmental data from over 2,800 monitoring stations located throughout the Louisiana coast. For any other information or questions, call 1-888-459-6107, or write to the Louisiana Department of Natural Resources, Coastal Restoration Division, P.O. Box 44027, Capitol Station, Baton Rouge, Louisiana 70804-4027.

Louisiana Department of Natural Resources
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