

Section 2

Progress to Date: Results on All Fronts

"However beautiful the strategy, you should occasionally look at the results." - Winston Churchill

A strategy intelligently informed, scientifically crafted and internationally acclaimed, *Louisiana's Comprehensive Master Plan for a Sustainable Coast* is more than just a realistic path forward with specific projects, achievable goals and measurable milestones. It is our best chance for a sustainable future for coastal Louisiana.

While the Master Plan is visionary for what needs to be done over the next 50 years, our Annual Plans focus on what can be seen right now: what has been built, what is being built, and the concrete plans and studies for what is about to be built. This is our report card on results achieved and in the works.

Project and program results can be itemized by type (restoration or protection), geographic region, or funding source. In this section we highlight some of our representative activities by their state and federal funding sources. (*Note: More information on these funding programs can be found in Section 3.*)

Berm to Barrier Projects

"Wow!" is a common reaction when people see what the CPRA has accomplished in rebuilding our chain of barrier islands, the state's first line of defense against storm surge. The uninhabited islands that hadn't already disappeared had, at a minimum, eroded to the point of near ineffectiveness. During the disastrous 2010 *Deepwater Horizon* oil spill, emergency money was allocated to dredge sand onto some of the islands so they could serve as protective berms against oil threatening interior marshes. Since that time the CPRA has capitalized on the investment, using the dredged material as a foundation to build bigger, stronger, more-sustainable barrier islands. The ongoing reconstructions utilize remaining emergency funds, other program money, and additional oil-spill related funding.

The barrier island chain deteriorated due to normal shoreline erosion, storm surge impacts, subsidence, sediment deprivation, sea level rise, and other factors.



Scofield Island

The Scofield Island project was the first-ever use of riverine sand for reconstruction of a barrier island, dredging sand from the bed of the Mississippi River and transporting it via pipeline approximately 22 miles to the offshore site. The dredge pipe extended approximately 10 miles down the Empire Waterway, then in front of Pelican Island to Scofield Island. Approximately 238 acres of beach and dune and 398 acres of marsh platform were created. The dune is approximately 640 feet wide and six feet high. It runs along 2.2 miles of gulf shoreline.



Shell Island East

The second time river sand was used to rebuild an offshore island occurred in the same barrier island chain. The Shell Island East restoration created a combined 277 acres of marsh, beach, and dune along a 1.3 mile stretch of shoreline—all with sand mined from the Mississippi River and pipelined offshore. A proposed second increment, the Shell Island West project, aims to add 342 acres of beach stretching the island 1.5 miles further to the west.



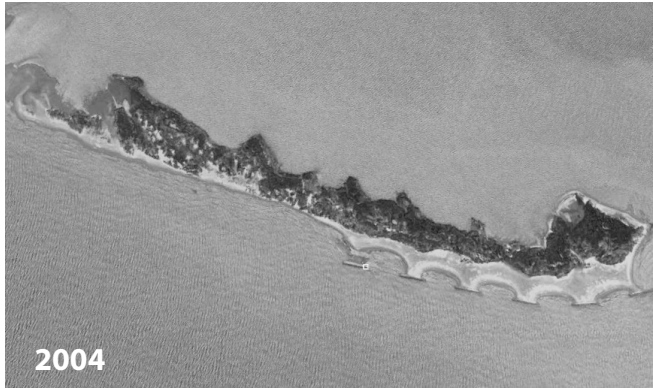
Pelican Island

Located between Shell and Scofield Islands, Pelican Island was the first of that chain to be restored. Reconstruction began in November 2011 and was completed in November 2012. The project used offshore sand from the Gulf of Mexico to create beach and dune, and used sediment from nearby waters for the back marsh. The dune is built upon the existing sand protective berm that was enhanced in response to the *Deepwater Horizon* oil spill. Construction required approximately 12 miles of pipeline and a booster pump. The dune and marsh have been planted with native plants.



Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)

CWPPRA was the first major funding program for coastal wetlands restoration projects, authorized by the U.S. Congress in 1990. Currently it funds approximately \$75 million in projects annually.



2004



2012

While rock breakwater structures are not suitable in all coastal environments, a CWPPRA demonstration project on Raccoon Island in the Isle Dernieres barrier island chain proved they can be successfully used in certain instances to accrete sand and protect beaches. This has led to an expanded restoration effort to protect the island's rookery and seabird colonies, and creation of 16 acres of intertidal wetlands to serve as bird habitat using more than \$20 million in CWPPRA funds. (Google Earth images)



2011



2013

Where land had disappeared into open water, new land emerges. The Lake Hermitage Marsh Creation project has used approximately \$39 million in CWPPRA funds to pump sediment dredged from the Mississippi River to create more than 550 acres of land that will soon grow into viable marsh near Pointe a la Hache in western Plaquemines Parish. An additional 104 acres is being created through the Lake Hermitage Marsh Creation – NRDA Early Restoration Project

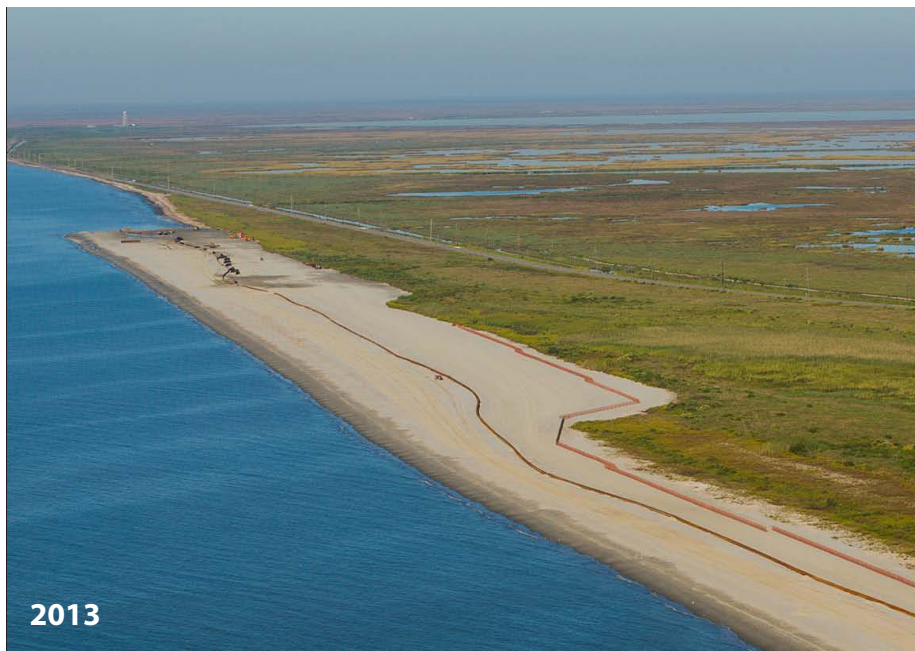
State Only (Surplus Funding)

State budget surpluses in fiscal years 2007, 2008 and 2009 totaling \$790 million were dedicated to coastal protection and restoration projects. The CPRA is using these funds to expedite ongoing programs, develop initiatives and implement protection and restoration projects, some of which are illustrated here.

In Cameron Parish, an eroded shoreline threatened much more than just the loss of a beach habitat. It also threatened the only east-west coastal highway in the parish, a road that also serves as a boundary between the sea and hundreds of thousands of acres of a delicate marsh, including the Sabine National Wildlife Refuge. The \$45 million State Surplus-funded project is rebuilding the beach using sand mined from 20 miles offshore.



Erosion along the Cameron Parish shoreline threatens the roadway and the marsh behind it, an important buffer against storm surge threatening heavily-populated areas like Lake Charles.



Beach-building expands westward along the Cameron Parish shoreline. Similar restorations have also been accomplished on other beaches and most of Louisiana's major barrier islands.

Because time and tide wait for no man, the CPRA and the parishes of Terrebonne and Lafourche have refused to wait idly for long-promised and authorized federal funds to construct the Morganza to the Gulf of Mexico levee system. The USACE has escalated the cost estimate to \$10 billion, further delaying its participation. But the citizens of the parishes refuse to wait. They have taxed themselves and the CPRA has infused money to jumpstart the project and build all the protection possible while waiting on the federal participation needed to complete the 98 miles of new or improved levees and T-walls, including navigation structures, water control structures and floodgates.

The Houma Navigation Canal "Bubba Dove" Floodgate, constructed in record time and without federal funding, anchors the Morganza to the Gulf of Mexico flood protection system.



Proceeding to the fullest extent possible, the Morganza to the Gulf project is lifting earthen levees to an elevation of approximately ten feet to protect vulnerable communities, businesses and infrastructure.



Coastal Impact Assistance Program (CIAP)

Six coastal states, including Louisiana and its coastal parishes, have been receiving CIAP funds since 2005 as part of the Federal Energy Policy Act to help mitigate the onshore effects of oil and gas development in the federal waters of the outer continental shelf.



Using \$40 million in CIAP funds and \$30 million in State Surplus funds, the CPRA is beefing up the Caminada Headland beach and dune environment that protects a critical part of America's energy infrastructure: Port Fourchon. The rapidly eroding shoreline is being rebuilt to a width of 65 feet with an elevation of 4.5 feet sloping to a 7-foot dune using sand dredged from Ship Shoal, a former delta of the Mississippi River now submerged in the Gulf approximately 25 miles south of Cocodrie in Terrebonne Parish. With another phase scheduled, all 14 miles of the headland will have undergone restoration.





Hardwood trees along coastal Louisiana provide significant storm damage reduction and ecological value. However, they have suffered devastating losses because of overly-aggressive and ill-informed logging practices, and because of coastal degradation, subsidence and saltwater intrusion. Replanting forests and chenier oaks is a worthwhile long-term investment, but so too is preserving what we now have. To that end, the CPRA has utilized CIAP funds to create the Coastal Forest Conservation Initiative (CFCI) to conserve critical coastal forest habitat. CFCI is a completely voluntary program with a primary focus on acquiring land rights (fee title or conservation servitude) from willing landowners to restore or enhance the sustainability of coastal forest tracts, and to maintain their existence in perpetuity.



Greater New Orleans Hurricane Protection System (HPS)

Nowhere is recent progress more visible, or more impressive, than the improvements to the hurricane protection system around the New Orleans metropolitan area. Its weaknesses tragically exposed by the aftermath of Hurricane Katrina in 2005, the system needed strengthening on an unprecedented scale - and it has gotten it.



Instead of a series of canals trying to hold back storm surge within neighborhoods throughout the city, New Orleans now has a new defense concept: preventing the water from entering the confines of the metropolitan area. When storm surge threatens, the perimeter can completely encapsulate the area by closing the large navigation gates (including sector gates as shown here) and using 75 pumping stations (including the world's largest gravity pump station) capable of evacuating more than eight million cubic feet of water per minute. This vastly-improved 133 mile perimeter defense has the city better protected than at any time in its history.



Community Development Block Grants (CDBG)

In the aftermath of Hurricanes Gustav and Ike in 2008, the Louisiana Office of Community Development-Disaster Recovery Unit (OCD-DRU) received \$27.4 million in CDBG funds from the U.S. Dept. of Housing and Urban Development (HUD) for coastal protection and restoration projects to help communities recover from the storms and prepare to withstand future events with greater resilience. The OCD-DRU's Coastal Communities Recovery Program manages and administers the funds through a cooperative endeavor agreement with the CPRA. The program fosters cooperation and partnerships with local governmental entities which have their own allocation of CDBG funds. Pictured here are examples of how project funds are put to use.

The Madisonville Bulkhead Project involved construction of a new bulkhead including the installation of a 798-foot steel sheet pile wall, replacement of the dock and related infrastructure. This was a unique partnership between HUD, OCD-DRU, CPRA, St. Tammany Parish and the town of Madisonville.



The Franklin Floodgate project constructed a 170-foot steel flood wall, a barge gate, 800 feet of earthen levee, and a large pump house to protect communities, economic centers and critical infrastructure. The project is a partnership between CPRA, OCD-DRU and the St. Mary Parish Levee District.

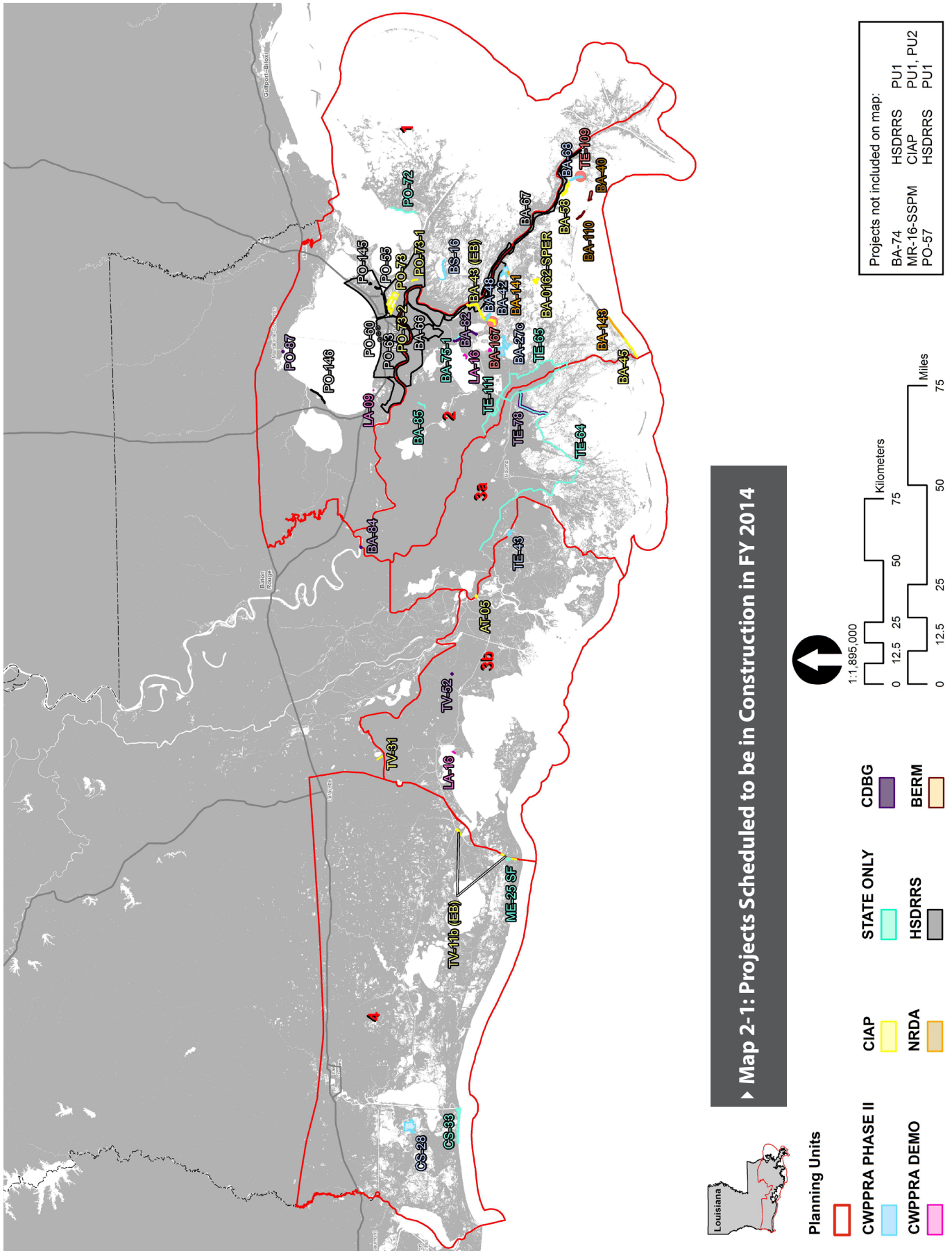


► **Table 2-1: Projects Scheduled to be in Construction in FY 2014**

Project ID	Project Name	Construction Start Date ¹	Construction Finish Date	State Construction Budget
CWPPRA Phase II Projects				
BA-27C	Barataria Basin Landbridge Shoreline Protection, Phase 3-CU7 & 8	15-Apr-14	22-Jun-15	\$3,765,298
BA-42	Lake Hermitage Marsh Creation	29-Sep-11	29-Oct-14	\$5,469,938
BA-48	Bayou Dupont Marsh and Ridge Creation Project	17-Sep-13	23-Dec-15	\$5,343,343
BA-68	Grand Liard Marsh and Ridge Restoration	16-Dec-13	01-Apr-15	\$5,742,508
BS-16	South Lake Lery Shoreline and Marsh Restoration	05-Sep-13	08-May-15	\$4,470,149
CS-28	Sabine Refuge Marsh Creation Cycles 4 & 5	28-Feb-14	20-Nov-14	\$1,549,210
TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne	08-Feb-13	29-May-14	\$1,692,940
CWPPRA Demonstration Projects				
LA-09	Sediment Containment System for Marsh Creation Demonstration	02-May-11	21-Aug-13	\$160,961
LA-16	Non-rock Alternative to Shoreline Protection Demonstration	16-Aug-13	17-Jul-14	\$839,846
CIAP Projects				
AT-05	Morgan City Industrial Road	24-Mar-14	29-Jan-15	\$214,848
BA-43 (EB)	Mississippi River Long Distance Sediment Pipeline ²	17-Sep-13	23-Dec-15	\$56,495,337
BA-45	Caminada Headland Beach and Dune Restoration ²	12-Apr-13	01-Aug-14	\$66,512,673
BA-58	Fringe Marsh Repair	10-Jun-12	17-Jan-14	\$2,300,000
BA-162-SPER	Shoreline Protection Emergency Restoration	01-Apr-13	17-Oct-13	\$49,449
MR-16-SSPM	Mississippi River Delta Strategic Planning - SSPM Expansion	17-Feb-14	28-Jul-15	\$8,701,642
PO-73	Central Wetlands Demonstration	22-Aug-11	23-Feb-15	\$2,811,832
PO-73-1	Central Wetlands - Riverbend	03-Sep-13	22-Jan-15	\$1,800,000
PO-73-2	Central Wetlands - EBSTP to A2	14-May-14	11-Dec-15	\$4,218,168
TV-11B (EB)	Freshwater Bayou Bank Stabilization (CIAP)	19-Jul-13	21-Jul-14	\$10,833,652
TV-31	Acadiana Regional Airport Street Improvements - Admiral Doyle Drive	04-Mar-14	14-May-15	\$602,500
State-Only Projects				
BA-75-1	Jean Lafitte Tidal Protection	19-Feb-14	27-May-15	\$12,230,000
BA-85	St. Charles West Bank Hurricane Protection Levee	16-Dec-13	28-Dec-17	\$8,000,000
CS-33	Cameron Parish Shoreline Restoration	08-Dec-12	26-Feb-14	\$42,445,302
ME-25 SF	Marsh Creation Near Freshwater Bayou	06-Dec-13	27-May-15	\$5,358,516
PO-72	Biloxi Marsh	25-Jan-13	06-Sep-14	\$19,360,000
TE-64	Morganza to the Gulf	30-Nov-05	03-Oct-16	\$102,556,411

► **Table 2-1: Projects Scheduled to be in Construction in FY 2014**

Project ID	Project Name	Construction Start Date ¹	Construction Finish Date	State Construction Budget
State-Only Projects (cont.)				
TE-65	Larose to Golden Meadow - Flood Protection	06-Jan-09	31-Jul-14	\$27,820,000
TE-111	Valentine to Larose	12-Apr-13	02-Jun-14	\$375,000
CDBG Projects				
BA-82	Lafitte Area Levee Repair	12-May-14	24-Mar-15	\$425,000
BA-84	Bayou Lafourche Fresh Water District - Walter S. Lemann Memorial Pump Station Renovations	24-Jan-13	02-Sep-14	\$2,857,000
PO-87	Madisonville Bulkhead Project ²	11-Jan-13	28-Feb-14	\$1,878,611
TE-78	Cut-Off/Pointe Aux Chene Levee	01-May-14	25-Aug-15	\$7,352,567
TV-52	Franklin Floodgate Sinkable Barge and Pump Station ²	05-Jul-12	09-Sep-14	\$4,941,888
HSDRRS Projects^{3,4}				
BA-66	West Bank and Vicinity	26-Jan-07	15-Mar-16	\$4,304,525,784
BA-67	New Orleans to Venice	03-Aug-12	24-Nov-20	\$1,301,523,760
BA-74	Storm-Proofing of Interior Pumping Stations	13-Apr-09	26-Nov-14	\$340,000,000
PO-55	Lake Pontchartrain & Vicinity Lake Borgne Surge Barrier LPV-IHNC-02 ⁵	08-Apr-08	19-Dec-13	\$1,134,000,000
PO-57	SELA-Overall	18-Feb-09	12-Oct-20	\$1,170,974,586
PO-60	Permanent Canal Closures and Pump Stations	01-Jan-13	08-May-17	\$614,800,000
PO-63	Lake Pontchartrain and Vicinity	31-Oct-07	16-Oct-14	\$3,852,000,000
PO-145	LPV Task Force Guardian Mitigation- Bayou Sauvage ⁵	01-Mar-12	31-Dec-14	\$780,000
PO-146	Previously Authorized Mitigation LPV- Manchac ⁵	07-Jan-12	27-Feb-15	\$21,000,000
Berm to Barrier Projects				
BA-40	Riverine Sand Mining/Scofield Island Restoration	09-Jan-12	14-May-14	\$58,338,408
BA-110	Shell Island East- BERM	14-Dec-12	11-Jun-14	\$44,800,000
LOSCO Projects				
BA-167	OPA Little Lake	17-Sep-13	23-Dec-15	\$776,000
TE-109	OPA Mosquito Bay ⁶	16-Dec-13	01-Apr-15	\$1,091,000
NRDA Early Restoration Projects				
BA-141	Lake Hermitage Marsh Creation, Additional Increment	29-Sep-11	29-Oct-14	\$7,222,162
NFWF Projects				
BA-143	Caminada Headland Beach and Dune Restoration Increment 2	23-Apr-14	25-Apr-16	\$144,551,441
Notes				
1. Construction start date is defined as projected date for advertisement of construction bid notice; actual date of mobilization may vary.				
2. Project partially funded with Surplus funds.				
3. Full construction budget is presented.				
4. Pending completion of approval process.				
5. Project cost included in total cost for PO-63.				
6. Project to be constructed as a change order for BA-68.				



► **Table 2-2: Projects Scheduled to Complete Construction in FY 2014**

Project ID	Project Name	Construction Start Date ¹	Construction Finish Date	State Construction Budget
CWPPRA Phase II Projects				
TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne	08-Feb-13	29-May-14	\$1,692,940
CWPPRA Demonstration Projects				
LA-09	Sediment Containment System for Marsh Creation Demonstration	02-May-11	21-Aug-13	\$160,961
CIAP Projects				
BA-162-SPER	Shoreline Protection Emergency Restoration	01-Apr-13	17-Oct-13	\$49,449
BA-58	Fringe Marsh Repair	10-Jun-12	17-Jan-14	\$2,300,000
State-Only Projects				
CS-33	Cameron Parish Shoreline Restoration	08-Dec-12	26-Feb-14	\$42,445,302
TE-111	Valentine to Larose	12-Apr-13	02-Jun-14	\$375,000
CDBG Projects				
PO-87	Madisonville Bulkhead Project ²	11-Jan-13	28-Feb-14	\$1,878,611
HSDRRS Projects^{3,4}				
PO-55	Lake Pontchartrain & Vicinity Lake Borgne Surge Barrier LPV-IHNC-02	08-Apr-08	19-Dec-13	\$1,134,000,000
Berm to Barrier Projects				
BA-40	Riverine Sand Mining/Scofield Island Restoration	09-Jan-12	14-May-14	\$58,338,408
BA-110	Shell Island East - BERM	14-Dec-12	11-Jun-14	\$44,800,000
Notes				
1. Construction start date is defined as projected date for advertisement of construction bid notice; actual date of mobilization may vary.				
2. Project partially funded with Surplus funds.				
3. Full construction budget is presented.				
4. Pending completion of approval process.				

