

APPENDIX B: SUPPORTING TABLES

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Table 1. Relevant Resources and Their Institutional, Technical and Public Importance

Resource	Institutionally Important	Technically Important	Publicly Important
Wetlands	Clean Water Act of 1977, as amended; Executive Order 11990 of 1977, Protection of Wetlands; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968., EO 11988, and Fish and Wildlife Coordination Act.	They provide necessary habitat for various species of plants, fish, and wildlife; they serve as ground water recharge areas; they provide storage areas for storm and flood waters; they serve as natural water filtration areas; they provide protection from wave action, erosion, and storm damage; and they provide various consumptive and non- consumptive recreational opportunities.	The high value the public places on the functions and values that wetlands provide. Environmental organizations and the public support the preservation of marshes.
Bottomland Hardwood Forest	Section 906 of the Water resources Development Act of 1986 and the Fish and Wildlife Coordination Act of 1958, as amended.	Provides necessary habitat for a variety of plant, fish, and wildlife species; it often provides a variety of wetland functions and values; it is an important source of lumber and other commercial forest products; and it provides various consumptive and non- consumptive recreational opportunities.	The high priority that the public places on its esthetic, recreational, and commercial value.
Aquatic Resources/ Fisheries	Fish and Wildlife Coordination Act of 1958, as amended; Clean Water Act of 1977, as amended; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968.	They are a critical element of many valuable freshwater and marine habitats; they are an indicator of the health of the various freshwater and marine habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
Soils and Water Bottoms	Fish and Wildlife Coordination Act, Marine Protection, Research, and Sanctuaries Act of 1990	State and Federal agencies recognize the value of water bottoms for the production of benthic organisms.	Environmental organizations and the public support the preservation of water quality and fishery resources.
Essential Fish Habitat (EFH)	Magnuson-Stevens Fishery Conservation and Management Act of 1996, Public Law 104-297	Federal and state agencies recognize the value of EFH. The Act states, EFH is “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.”	Public places a high value on seafood and the recreational and commercial opportunities EFH provides.
Wildlife	Fish and Wildlife Coordination Act of 1958, as amended and the Migratory Bird Treaty Act of 1918	They are a critical element of many valuable aquatic and terrestrial habitats; they are an indicator of the health of various aquatic and terrestrial habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
Threatened and Endangered Species	The Endangered Species Act of 1973, as amended; the Marine Mammal Protection Act of 1972; and the Bald Eagle Protection Act of 1940.	USACE, USFWS, NMFS, NRCS, EPA, LDWF, and LDNR cooperate to protect these species. The status of such species provides an indication of the overall health of an ecosystem.	The public supports the preservation of rare or declining species and their habitats.
Cultural Resources	National Historic Preservation Act of 1966, as amended; the Native American Graves Protection and Repatriation Act of 1990; and the Archeological Resources Protection Act of 1979	State and Federal agencies document and protect sites. Their association or linkage to past events, to historically important persons, and to design and construction values; and for their ability to yield important information about prehistory and history.	Preservation groups and private individuals support protection and enhancement of historical resources.

Resource	Institutionally Important	Technically Important	Publicly Important
Recreation Resources	Federal Water Project Recreation Act of 1965 as amended and Land and Water Conservation Fund Act of 1965 as amended	Provide high economic value of the local, state, and national economies.	Public makes high demands on recreational areas. There is a high value that the public places on fishing, hunting, and boating, as measured by the large number of fishing and hunting licenses sold in Louisiana; and the large per-capita number of recreational boat registrations in Louisiana.
Aesthetics	USACE ER 1105-2-100, and National Environmental Policy Act of 1969, the Coastal Barrier Resources Act of 1990, Louisiana's National and Scenic Rivers Act of 1988, and the National and Local Scenic Byway Program.	Visual accessibility to unique combinations of geological, botanical, and cultural features that may be an asset to a study area. State and Federal agencies recognize the value of beaches and shore dunes.	Environmental organizations and the public support the preservation of natural pleasing vistas.
Air Quality	Clean Air Act of 1963, Louisiana Environmental Quality Act of 1983.	State and Federal agencies recognize the status of ambient air quality in relation to the NAAQS.	Virtually all citizens express a desire for clean air.
Water Quality	Clean Water Act of 1977, Fish and Wildlife Coordination Act, Coastal Zone Mgt Act of 1972, and Louisiana State & Local Coastal Resources Act of 1978.	USACE, USFWS, NMFS, NRCS, EPA, and State DNR and wildlife/fishery offices recognize value of fisheries and good water quality and the national and state standards established to assess water quality.	Environmental organizations and the public support the preservation of water quality and fishery resources and the desire for clean drinking water.
Prime and unique Farmland	Farmland Protection Policy Act	State and Federal agencies recognize the value of farmland for the production of food, feed and forage.	Public places a high value on food and feed production.
Noise Quality	USACE ER 1105-2-100, and National Environmental Policy Act of 1969, Noise Control Act of 1972, Quiet Communities Act of 1978	Unwanted noise has an adverse effect on human beings and their environment, including land, structures, and domestic animals and can also disturb natural wildlife and ecological systems.	The EPA must promote an environment for all Americans free from noise that jeopardizes their health and welfare.
Socio-economics	USACE ER 1105-2-100, and National Environmental Policy Act of 1969	When an environmental document is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental document will discuss all of these effects on the human environment.	Government programs, policies and projects can cause potentially significant changes in many features of the socioeconomic environment.
Navigation	Rivers and Harbors Act of 1899 and River and Harbor Flood Control Act of 1970 (PL 91-611).	The Corps provides safe, reliable, efficient, and environmentally sustainable waterborne transportation systems (channels, harbors, and waterways) for movement of commerce, national security needs, and recreation.	Navigation concerns affect area economy and are of significant interest to community.

Table 2. Vegetation observed in the Maurepas Swamp. Modified from Krauss et. al, 2017, and Effler et al., 2007.

Trees and Shrubs:	
<i>Acer rubrum var. drummondii</i>	Swamp red maple
<i>Celtis laevigata</i>	Hackberry
<i>Cephalanthus occidentalis L.</i>	Buttonbush
<i>Fraxinus pennsylvanica Marsh.</i>	Green ash
<i>Forestiera acuminata</i>	Swamp Privet
<i>Morella cerifera (L.)</i>	Small Southern waxmyrtle
<i>Nyssa aquatica L.</i>	Water tupelo
<i>Nyssa biflora Walter</i>	Swamp tupelo
<i>Platanus occidentalis</i>	American Sycamore
<i>Quercus laurifolia Michx.</i>	Laurel oak
<i>Salix nigra Marshall</i>	Black willow
<i>Taxodium distichum (L.) Rich</i>	Baldcypress
<i>Triadica sebifera (L.) Small</i>	Chinese tallow
Herbaceous Plants:	
<i>Alternanthera philoxeroides (Mart.) Griseb.</i>	Alligatorweed
<i>Amaranthus australis (A. Gray) J.D. Sauer</i>	Pigweed
<i>Aster spp.</i>	Asters
<i>Baccharis halimifolia L.</i>	Eastern baccharis
<i>Bidens laevis</i>	Smooth beggartick
<i>Carya aquatica</i>	Water hickory
<i>Cornus drummondii</i>	Roughleaf dogwood
<i>Echinochloa walteri (Pursh) A. Heller</i>	Walter's millet
<i>Eleocharis spp.</i>	Spikerush
<i>Galium tinctorium L.</i>	Stiff marsh bedstraw
<i>Hydrocotyle spp.</i>	Hydrocotyle
<i>Iris virginica L.</i>	Blue flag
<i>Isoetes louisianensis</i>	Louisiana Quillwort
<i>Ludwigia peploides</i>	Floating primrose
<i>Panicum hemitomon Schult.</i>	Maidencane
<i>Peltandra virginica (L.) Schott</i>	Green arrow arum
<i>Polygonum spp.</i>	Smartweed
<i>Pontederia cordata L.</i>	Pickerelweed
<i>Quercus nigra</i>	Water oak
<i>Sabal minor (Jacq.) Pers.</i>	Dwarf palmetto
<i>Sagittaria lancifolia L.</i>	Bulltongue
<i>Vigna luteola (Jacq.) Benth.</i>	Deer pea

Table 3. Common Wildlife Species Potentially Found in the Planning Area

Scientific Name	Common Name
<i>Alligator mississippiensis</i>	American alligator
<i>Macrochelys temminckii</i>	Alligator snapping turtles
<i>Castor canadensis</i>	American beaver
<i>Fulica americana</i>	American coot
<i>Falco sparverius</i>	American kestrel
<i>Pelecanus erythrorhynchos</i>	American white pelican
<i>Anas americana</i>	American widgeon
<i>Anhinga anhinga</i>	Anhingas
<i>Haliaeetus leucocephalus</i>	Bald eagle
<i>Nerodia fasciata</i>	Banded water snake
<i>Strix varia</i>	Barred owl
<i>Ceryle alcyon</i>	Belted kingfisher
<i>Anas discors</i>	Blue-winged teal
<i>Quiscalus major</i>	Boat-tailed grackle
<i>Lynx rufus</i>	Bobcat
<i>Tadarida brasiliensis</i>	Brazilian free-tailed bat
<i>Rana clamitans</i>	Bronze frog
<i>Pelecanus occidentalis</i>	Brown pelican
<i>Bucephala albeola</i>	Bufflehead
<i>Rana catesbeiana</i>	Bullfrog
<i>Thryothorus ludovicianus</i>	Carolina wren
<i>Bubulcus ibis</i>	Cattle egret
<i>Rallus longirostris</i>	Clapper rail
<i>Quiscalus quisqualis</i>	Common grackle
<i>Gallinula chloropus</i>	Common moorhen
<i>Chelydra serpentine</i>	Common snapping turtle
<i>Geothlypis trichas</i>	Common yellowthroat
<i>Peromyscus gossypinus</i>	Cotton mouse
<i>Canis latrans</i>	Coyote
<i>Phalacrocorax auritus</i>	Double-crested cormorant
<i>Pipistrellus subflavus</i>	Eastern pipistrelle
<i>Sylvilagus floridanus</i>	Eastern cottontail rabbit
<i>Sciurus carolinensis</i>	Eastern gray squirrel
<i>Contopus virens</i>	Eastern wood-pewee
<i>Nycticeius humeralis</i>	Evening bat
<i>Sus scrofa</i>	Feral hog
<i>Sterna forsteri</i>	Forster's tern
<i>Sciurus niger</i>	Fox squirrel
<i>Reithrodontomys fulvescens</i>	Fulvous harvest mouse
<i>Anas strepera</i>	Gadwall
<i>Plegadis falcinellus</i>	Glossy ibis

Scientific Name	Common Name
<i>Urocyon cinereoargenteus</i>	Gray fox
<i>Ardea herodias</i>	Great blue heron
<i>Casmerodius albus</i>	Great egret
<i>Tringa melanoleuca</i>	Greater yellowlegs
<i>Anolis carolinensis</i>	Green anole
<i>Butorides striatus</i>	Green-backed heron
<i>Chelonia mydas</i>	Green sea turtle
<i>Hyla cinerea</i>	Green treefrogs
<i>Anas crecca</i>	Green-winged teal,
<i>Scincella lateralis</i>	Ground skink
<i>Bufo valliceps</i>	Gulf coast toad
<i>Eretomchelys imbricata</i>	Hawksbill Sea Turtle
<i>Sigmodon hispidus</i>	Hispid cotton rat
<i>Mus musculus</i>	House mouse
<i>Lepidochelys kempii</i>	Kemp's ridley sea turtle
<i>Larus atricilla</i>	Laughing gull
<i>Dermodochelys coriacea</i>	Leatherback Sea Turtle
<i>Aythya affinis</i>	Lesser scaup
<i>Tringa flavipes</i>	Lesser yellowlegs
<i>Egretta caerulea</i>	Little Blue Heron
<i>Caretta caretta</i>	Loggerhead sea turtle
<i>Anas platyrhynchos</i>	Mallard
<i>Oryzomys palustris</i>	Marsh rice rat
<i>Cistothorus palustris</i>	Marsh wren
<i>Mustela vison</i>	Mink
<i>Anas fulvigula</i>	Mottled duck
<i>Zenaida macroura</i>	Mourning Dove
<i>Ondatra zibethicus</i>	Muskrat
<i>Dasyopus novemcinctus</i>	Nine-banded armadillo
<i>Cardinalis cardinalis</i>	Northern cardinal
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Anas acuta</i>	Northern pintail
<i>Setophaga americana</i>	Northern Parulas
<i>Procyon lotor</i>	Northern raccoon
<i>Anas clypeata</i>	Northern Shoveler
<i>Lasiurus intermedius</i>	Northern yellow bat
<i>Rattus norvegicus</i>	Norway rat
<i>Myocastor coypus</i>	Nutria
<i>Phalacrocorax brasilianus</i>	Olivaceous cormorant
<i>Rana grylio</i>	Pig frog
<i>Charadrius melodus</i>	Piping Plover
<i>Protonotaria citrea</i>	Prothonotary Warblers

Scientific Name	Common Name
<i>Plecotus rafinesquii</i>	Rafinesque's big-eared bat
<i>Lasiurus borealis</i>	Red bat
<i>Picoides borealis</i>	Red Cockaded Woodpecker
<i>Trachemys scripta</i>	Red-eared slider
<i>Calidris canutus rufa</i>	Red Knot
<i>Lutra canadensis</i>	River otter
<i>Vulpes vulpes</i>	Red fox
<i>Aythya americana</i>	Redhead
<i>Buteo lineatus</i>	Red-shouldered hawk
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Agelaius phoeniceus</i>	Red-winged blackbird
<i>Larus delawarensis</i>	Ring-billed gull
<i>Graptemys oculifera</i>	Ringed Map Turtle
<i>Rattus rattus</i>	Roof rat
<i>Ammodramus maritimus</i>	Seaside sparrow
<i>Lasiurus seminolus</i>	Seminole bat
<i>Egretta thula</i>	Snowy egret
<i>Rana sphenoccephala</i>	Southern leopard frog
<i>Hyla squirella</i>	Squirrel treefrogs
<i>Sternotherus odoratus</i>	Stinkpot
<i>Mephitis mephitis</i>	Striped skunk
<i>Sylvilagus aquaticus</i>	Swamp rabbit
<i>Egretta tricolor</i>	Tricolored heron
<i>Trichechus manatus</i>	West Indian manatee
<i>Agkistrodon piscivorus</i>	Western cottonmouth
<i>Vireo griseus</i>	White-eyed vireo
<i>Plegadis chihi</i>	White-faced ibis
<i>Peromyscus leucopus</i>	White-footed mouse
<i>Eudocimus albus</i>	White ibis
<i>Odocoileus virginiana</i>	White-tail deer
<i>Aix sponsa</i>	Wood duck
<i>Nycticorax violaceus</i>	Yellow-crowned night-heron
<i>Setophaga dominica</i>	Yellow-throated Warblers

Table 4. State Listed Species that have potential to be present at proposed project sites

CLASSIFICATION: UNCLASSIFIED Site	Parish	Species Present
Albania South	St. Mary	Golden Canna, cypress knee sedge, floating antler tern, croomia, lance leaved glade fern, southern shield wood fern, rooted spike rush, square stemmed monkey flower, coastal ground cherry, woodland bluegrass, millet beakrush, scarlet woodbine, wildenows fern, broad leaved spiderwort, snowy plover, piping plover, gull nilled tern, bald eagle, roseate spoonbill, paddlefish, pallid sturgeon, Louisiana Black Bear
Albania North	St. Mary	Golden Canna, cypress knee sedge, floating antler tern, croomia, lance leaved glade fern, southern shield wood fern, rooted spike rush, square stemmed monkey flower, coastal ground cherry, woodland bluegrass, millet beakrush, scarlet woodbine, wildenows fern, broad leaved spiderwort, snowy plover, piping plover, gull nilled tern, bald eagle, roseate spoonbill, paddlefish, pallid sturgeon, Louisiana Black Bear
Amite	East Feliciana & St. Helena	Alabama Shad, Rayed Creekshell, bluntface shiner, elephant-ear, rainbow snake, broadstripe topminnow, bald eagle, worm-eating warbler, four-toed salamander, southern pocketbook, long-tailed weasel, southern hickory nut, eastern glass lizard, Mississippi pigtoe, inflated heelsplitter, eastern harvest mouse, pallid sturgeon, Louisiana waterthrush, southeastern shrew, interior least tern, manatee, southern rainbow, single head pussytoes, enchanter's nightshade, water-purslane, southern shield woodfern, rooted spike rush, wolf spike rush, square stemmed monkey flower, low erythrodes, riverweed, scarlet woodbrine, Elliott sida, starry campion, silky camellia, powdery thalia, dwarf filmy fern Flax leaf false, single head pussytoes, sand hickory, fairy wand, richweed, autumn coralroot, water purslane, long horned habenaria, broadleaf barbara's buttons, snow melanthera, four point evening primrose, carpenters ground cherry, riverweed, dwarf gray willow, scarlet woodbine, starry campion, silky camellia, dwarf filmy fern, carolina fluff grass, alabma shad, rayed creekshell, elephant ear, big brown bat, broadstripe topminnow, southern pocketbook, harlequin coral snake, southern hickorynut, alabama hickorynut, eastern glass lizard mississippi pigtoe, southern rainbow
Ascension	Ascension	Gulf Sturgeon, Bald Eagle, Four-T oed Salamander, Inflated Heel splitter, Pallid Sturgeon, Eastern Spotted Skunk, Southern Creekmussel, Manatee
Bayou Vista	St. Mary	Golden Canna, cypress knee sedge, floating antler tern, croomia, lance leaved glade fern, southern shield wood fern, rooted spike rush, square stemed monkey flower, coastal groundcherry, woodland bluegrass, millet beakrush, scarlet woodbine, wildenows fern, broad leaved spiderwort, snowy plover, piping plover, gull nilled tern, bald eagle, roseate spoonbill, paddlefish, pallid sturgeon, Louisiana Black Bear

CLASSIFICATION: UNCLASSIFIED Site	Parish	Species Present
Cote Blanche	St. Mary	Golden Canna, cypress knee sedge, floating antler tern, croomia, lance leaved glade fern, southern shield wood fern, rooted spike rush, square stemed monkey flower, coastal groundcherry, woodland bluegrass, millet beakrush, scarlet woodbine, wildenows fern, broad leaved spiderwort, snowy plover, piping plover, gull nilled tern, bald eagle, roseate spoonbill, paddlefish, pallid sturgeon, Louisiana Black Bear
Feliciana	East Feliciana	Alabama Shad, Rayed Creekshell, bluntface shiner, elephant-ear, rainbow snake, broadstripe topminnow, bald eagle, worm-eating warbler, four-toed salamander, southern pocketbook, long-tailed weasel, southern hickory nut, eastern glass lizard, Mississippi pigtoe, inflated heelsplitter, eastern harvest mouse, pallid sturgeon, Louisiana waterthrush, southeastern shrew, interior least tern, manatee, southern rainbow, single head pussytoes,

Table 5. Fish and Aquatic Species Potentially found in the Planning Area

Scientific Name	Common Name
<i>Atractosteus spatula</i>	alligator gar
<i>Anguilla rostrata</i>	American eel
<i>Micropogonias undulatus</i>	Atlantic croaker
<i>Corbicula fluminea</i>	Asiatic clam
<i>Anchoa mitchilli</i>	bay anchovy
<i>Hypophthalmichthys nobilis</i>	bighead carp
<i>Pogonias cromis</i>	black drum
<i>Callinectes sapidus</i>	blue crab
<i>Ictalurus furcatus</i>	blue catfish
<i>Lepomis macrochirus</i>	bluegill
<i>Pomatomus saltatrix</i>	Blue fish
<i>Amia calva</i>	bowfin
<i>Farfantepenaeus aztecus</i>	brown shrimp
<i>Carcharhinus leucas</i>	Bull shark
<i>Ictalurus punctatus</i>	channel catfish
<i>Cyprinus carpio</i>	common carp
<i>Procambarus sp.</i>	crawfish
<i>Aplodinotus grunniens</i>	freshwater drum
<i>Fundulus chrysotus</i>	Golden topminnow
<i>Ctenopharyngodon idella</i>	grass carp
<i>Palaemonetes</i>	Grass Shrimp
<i>Brevoortia patronus</i>	Gulf menhaden
<i>Scaphirhynchus albus</i>	Pallid sturgeon
<i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon
<i>Ariopsis felis</i>	hardhead catfish
<i>Potamilus inflatus</i>	Inflated Heelsplitter Mussel
<i>Menidia beryllina</i>	inland silverside
<i>Micropterus salmoides</i>	largemouth bass
<i>Heterandria formosa</i>	least killifish
<i>Lepisosteus osseus</i>	longnose gar
<i>Polyodon spathula</i>	paddlefish
<i>Aphredoderus sayanus</i>	Pirate perch
<i>Lucania parva</i>	rainwater killifish
<i>Lepomis microlophus</i>	redeer sunfish
<i>Lutjanus campechanus</i>	Red snapper
<i>Sciaenops ocellatus</i>	redfish/ red drum
<i>Herichthys cyanoguttatus</i>	Rio Grande cichlid
<i>Cynoscion arenarius</i>	sand sea trout
<i>Poecilia latipinna</i>	sailfin molly
<i>Archosargus probatocephalus</i>	sheepshead
<i>Cyprinodon variegatus</i>	sheepshead minnow

Scientific Name	Common Name
<i>Scaphirhynchus platyrhynchus</i>	shovelnose sturgeon
<i>Hypophthalmichthys molitrix</i>	silver carp
<i>Ictiobus bubalus</i>	Smallmouth buffalo
<i>Paralichthys lethostigma</i>	southern flounder
<i>Scomberomorini</i>	Spanish mackerel
<i>Leiostomus xanthurus</i>	spot
<i>Lepisosteus oculatus</i>	spotted gar
<i>Cynoscion nebulosus</i>	spotted/speckled sea trout
<i>Mugil cephalus</i>	striped mullet
<i>Litopenaeus setiferus</i>	White shrimp
<i>Rhomboplites aurorubens</i>	Vermillion shrimp

Table 6. State and Federal Recreational Facilities in the Planning Area

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
National Wildlife Reserves (NWR) Source: www.fws.gov													
Atchafalaya NWR	Iberville and St. Martin	U.S. Fish and Wildlife Service / Louisiana Department of Wildlife and Fisheries	15,222	Atchafalaya National Wildlife Refuge, the Sherburne Wildlife Management Area, and the U.S. Army Corps of Engineers Bayou Des Ourses Area combine to form a 44,000 acre tract of wildlands, collectively referred to as the Sherburne Complex.	Nature trail, ATV trail	Boat launch	Yes	Yes, from boat and bank or pier	Yes	No	No	No	45,000 visitors annually. Visitors generate \$4,000,000 in expenditures annually
Bayou Sauvage NWR	Orleans	U.S. Fish and Wildlife Service	25,000	The refuge is entirely within the city limits of New Orleans and is the nation's largest urban wildlife refuge.	3-mile hiking trail; another 9-mile biking trail	St. 1 boat ramp; motor boating and non-motor boating	No	Fishing from boat, bank; craw-fishing, crabbing	Yes; observation deck	Classroom space, educational programming, interpretive panels	Yes; 1 picnic shelter	No	80,000 visitors annually
Bayou Teche NWR	St. Mary	U.S. Fish and Wildlife Service	9,028	Also referred to as the Louisiana Black Bear NWR	Interpretive boardwalk trail, 3 paddling trails	2 boat ramps	Yes	Yes, from boat and bank or pier	Yes	No	Informal	No	6,000 visitors annually. This site has received assistance from the LWCF

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Big Branch Marsh NWR	St. Tammany	U.S. Fish and Wildlife Service	18,000	Environmental education, birding, fishing, hunting, biking, hiking, wildlife observation, photography and canoeing. A major public use area is the Boy Scout Road boardwalk and trail.	4.5 mile hiking and biking trail, ¼ mile boardwalk	2 boat ramps	Deer, small game, waterfowl, alligator	Yes, from boat and bank	Yes, one observation deck	Classroom space in Bayou Lacombe visitor center attended by 1,000 people annually	No	No	200,000 visitors annually. Bayou Lacombe Visitor Center, interpretive panels
Bogue Chitto NWR	St. Tammany, Washington, and Pearl River County, MS	U.S. Fish and Wildlife Service	37,600	The refuge, accessible only by boat, has hunting, fishing, primitive streamside camping, birdwatching, and boating.	Boardwalk trail at Pearl River turnaround	3 nearby boat launches	Yes	Yes	Yes	No	No	Primitive	50,000 visitors annually
Cat Island NWR	West Feliciana	U.S. Fish and Wildlife Service	10,437	Home to the largest tree of any species east of the Sierra Nevada mountain range, and estimated to be 1,500 years old.	.75 mile round trip Big Cypress Trail and Black Fork Walking Trail	Canoeing and kayaking	Yes	Yes	Yes	No	No	No	The refuge is seasonally flooded with high water from the nearby Mississippi River

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Mandalay NWR	Terrebonne	U.S. Fish and Wildlife Service	4,416	The refuge, accessible only by boat, has hunting, fishing, and a nature trail	3/4 mile out and back boardwalk	Nearby boat launch	Yes	Yes	Yes	No	No	No	18,000 visitors annually
(continued) National Park Source: www.nps.gov													
Jean Lafitte National Historical Park and Preserve	Sites in Orleans, St. Bernard, Jefferson, Lafayette, Lafourche, Acadia, St. Landry	National Park Service	The Barataria Preserve in Marrero is 23,000 acres	6 sites include: Acadian Cultural Center, Barataria Preserve, Chalmette Battlefield and National Cemetery, French Quarter Visitor Center, Prairie Acadian Cultural Center, and Wetlands Acadian Cultural Center	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No admission fees. Donations accepted at visitor centers. All programs and events are free and open to the public.
Wildlife Management Area (WMA) Source: www.wlf.louisiana.gov/wma													
Atchafalaya Delta WMA	St. Mary	Louisiana Department of Wildlife and Fisheries	137,695	Located at the mouths of the Atchafalaya River and the Wax Lake Outlet, Atchafalaya Delta WMA mostly consists of open water in Atchafalaya Bay.	No	Yes. The WMA is accessed only by boat	Small game, water fowl, birds	Yes	Yes	No	No	Two camps - grounds with primitive restrictions	Within the bay, two deltas (Main Delta and Wax Lake Delta) have formed from the accretion of sediments.

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Attakapas Island WMA	Iberia, St. Martin, St. Mary	Louisiana Department of Wildlife and Fisheries and U.S. Army Corps of Engineers	27,962	The WMA's terrain is characterized by flat swampland subject to periodic flooding and siltation from the Atchafalaya River.	30 miles of trails around reforested plots	Nearby boat launches	Yes	Yes	Yes	No	One campsite area include picnic tables	Three primitive camping areas	Many areas within the WMA have silted in; siltation will continue to increase the land-to-water ratio.
Biloxi WMA	St. Bernard	Louisiana Department of Wildlife and Fisheries	39,583	Biloxi WMA is accessible only by boat via commercial launches at Hopedale and Shell Beach.	No	Motor boating	Small game, water fowl, birds, alligator	Yes	No	No	No	No	The area is owned and leased to the LDWF by the Biloxi Marsh Lands Corporation
Elm Hall WMA	Assumption	Louisiana Department of Wildlife and Fisheries	2,839	Elm Hall WMA is located on the northeast corner of Lake Verret.	No	Yes, The WMA is accessed only by boat. 2 nearby boat launches	Yes	Yes	Yes	No	No	Yes, in the designated camping area	Most of the swamp stays flooded year-round; the bottomland areas periodically flood.
Hutchinson Creek WMA	St. Helena	Louisiana Department of Wildlife and Fisheries	129	Most of Hutchinson Creek WMA is rolling hill terrain with young longleaf pine.	Yes	No	Yes	Limited	Yes	No	No	No	There is a small area of mature trees at the north end of the WMA, which is bordered by Hutchinson Creek.

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Joyce WMA	Tangipahoa	Louisiana Department of Wildlife and Fisheries, Tangipahoa Parish School Board	27,965	Access into the interior of the property is extremely limited. Access mainly via abandoned logging canals. Boat access limited to upper reaches.	Elevated boardwalk to swamp	Nearby boat launches	Yes	Yes	Yes	No	No	No	Popular for birding, Joyce WMA is a site along the American Wetlands Birding Trail.
Lake Ramsey Savannah WMA	St. Tammany	Louisiana Department of Wildlife and Fisheries	796	The area recognizes the threatened status of high-quality longleaf pine flat-wood savannahs in Louisiana and the many unique native species the habitat supports.	Nature trail on the south end of the WMA	No	Yes	Limited	Yes	No	No	No	Prescribed fire is critical in the maintenance of his rare habitat.
Manchac WMA	St. John the Baptist	Louisiana Department of Wildlife and Fisheries	8,328	Major vegetation was originally bald cypress, but nearly all of this has been logged from the area, leaving an open freshwater marsh.	No	1 boat launch just north of the WMA	Small game, water fowl, alligator	Yes	Yes	No	No	No	Manchac WMA is popular for duck hunting in the Prairie Pond, also allows fishing and wildlife viewing.

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Maurepas Swamp WMA (Eastern and Western Tracts)	Livingston, Ascension and St. James	Louisiana Department of Wildlife and Fisheries	117,729	Majority of access by boat, limited foot access.	½ mile nature trail	7 boat launch sites	Deer, rabbit, alligator	Freshwater fishing	Yes	No	No	Yes	Future plans for the WMA include cooperative freshwater reintroduction projects designed to revive the swamp.
Pointe Aux Chenes WMA	Terrebonne and Lafourche	Louisiana Department of Wildlife and Fisheries	35,267	Pointe-aux-Chenes WMA is mostly marsh, varying from intermediate to brackish and interspersed with numerous ponds, bayous, and canals.		2 boat launch sites and 2 nearby launches	Yes	Yes	Yes	No	No	Tent only camp-ground	LDWF manages the property through water control, mainly using variable crested weirs and levees.
Sandy Hollow WMA	Tangipahoa	Louisiana Department of Wildlife and Fisheries, Tangipahoa Parish School Board	4,655	Sandy Hollow WMA is a valuable research area; LDWF conducts numerous habitat, game, and non-game studies on the WMA.	No	No	Quail, dove, woodcock primarily	No	Yes	No	No	Primitive	The terrain is mostly rolling hills with young longleaf pine; there is only a small portion with mature trees.

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Sherburne WMA	Pointe Coupee, St. Martin, Iberville	LDWF, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service	11,800 16,618 15,220	Sherburne WMA is located in the Morganza Floodway system of the Atchafalaya Basin	Yes. Nature trail and ATV trails	3 public boat launches	Yes	Yes	Yes	Shooting range	No	One primitive area and one with running water	LDWF has managed the timber in some areas to improve habitat
Salvador / Timken WMA	St. Charles	Louisiana Department of Wildlife and Fisheries, City Park Commission of New Orleans	34,520	Salvador WMA is located along the northwestern shore of Lake Salvador. Timken WMA is a marsh island, located immediately east of Salvador WMA	No	Nearby boat launches	Yes	Yes	Yes	No	No	No	Primarily freshwater to intermediate marsh, there are several large stands of cypress in the northern portions of the WMA.
Tunica Hills WMA	West Feliciana	Louisiana Department of Wildlife and Fisheries, Louisiana Office of State Parks	6,503	The WMA's terrain is characterized by rugged hills, bluffs, and ravines offering a diverse and unique habitat not common in Louisiana.	A nature trail and 3 hiking trails, horse-back riding, biking	No	Yes	No	Yes	No	No	Tent only Primitive	Tunica Hills WMA is home to several resident and migratory bird species including some that are rare elsewhere in the state

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
(continued) Louisiana State Parks (SP) and State Historic Sites (SHS) Source: www.crt.state.la.us/louisiana-state-parks													
Waddill Outdoor Education Center	East Baton Rouge	Louisiana Department of Wildlife and Fisheries	237	Waddill Outdoor Education Center is primarily hardwood bottomland bordering theComite River.	Nature Trails	No	No	Two ponds for fishing	Yes	Classroom	Sandbar on the Comite River, picnic facilities, outdoor restroom	No	Observation blind, pavilion, gazebo, archery range, air gun range
St. Tammany Wildlife Refuge	St. Tammany	Louisiana Department of Wildlife and Fisheries and U.S. Fish and Wildlife Service	1,310	Refuge extends 10 miles along Lake Pontchartrain and inland 100 – 1,300 feet	No	Yes	Yes	Yes	Yes	No	No	No	Currently managed as part of Big Branch National Wildlife Refuge
Audubon SHS	West Feliciana	Louisiana Office of State Parks	N/A	Oakley House, where John James Audubon stayed, was built in 1806 and is a splendid example of colonial architecture and formal and kitchen gardens	Nature and hiking trails	No	No	No	Yes	Historic and nature programs	Picnic areas	No	Museum and historic buildings, concessions and gift shop

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Bayou Segnette SP	Jefferson	Louisiana Office of State Parks	N/A	Bayou Segnette State Park offers a multitude of recreational opportunities awaits visitors of all ages	Nature and hiking	Yes, boat launch, canoeing, kayaking	No	Yes	Yes	No	Wave pool and Playgrounds, Picnic pavilions	Yes, RV, tent, and cabins	Groupshelters
Bogue Chitto SP	Washington Parish	Louisiana Office of State Parks	1,786	The park includes small streams, cypress tupelo swamps, a hardwood forest, upland forests and a rolling landscape.	Horse trails, boardwalks, bike trails, hiking	Boat launch and canoe rentals	No	11 lakes stocked with freshwater fish, fishing piers	Yes	Yes	Water play ground, picnic pavilions	Yes, tent, RV, cabins, group camp	Outdoor classroom, conference room. This site has received assistance from the LWCF
Centenary SHS	East Feliciana Parish	Louisiana Office of State Parks	N/A	Centenary began in 1826 as the College of Louisiana. The remaining buildings were profoundly affected by the Civil war and used as hospital space.	Hiking trails	No	No	No	Yes	Historic and nature programs	Picnic areas	No	Museum and historic buildings with daily tours

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Cypremort Point SP	St Mary	Louisiana Office of State Parks	185	A half-mile stretch of a man-made beach provides a delightful area for relaxing, picnicking and enjoying the water.	Man-made beach	Yes	No	Yes, fishing pier	Yes	No	Picnic areas, swimming	Cabins	Adjacent boat docks and fish cleaning station. This site has received assistance from the LWCF
Fairview Riverside SP	St. Tammany	Louisiana Office of State Parks	99	State Park offers a variety of activities including fishing, picnicking and a playground	½ mile walking trail/boat ramp	1 boat ramp	No	Yes	Yes	Museum, historic site, educational programming	Play area, picnic tables	101 improved campsites	Group pavilion and comfort stations. This site has received assistance from the LWCF
Fontainebleau SP	St. Tammany	Louisiana Office of State Parks	2,800	Offers a variety of activities including hiking, cycling, in-line skating, swimming, picnicking, fishing	2 walking trails (6 miles), 1 biking trail (23 miles)	No	No	Yes, 300' fishing pier	Yes	Conference room, educational programming, interpretive panels	Lake swimming with sandy beach, 1 picnic shelter	Improved campsites, Group camps, cabins, trailer camping	Visitor Center. This site has received assistance from the LWCF

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Fort Pike SHS	St. Tammany	Louisiana Office of State Parks	94	Fort Pike, a military installation, was completed in 1826. The park offers educational programs and demonstrations.	No	1 boat ramp	No	No	Yes	Museum, historic site, educational programming, interpretive panels	Picnic tables	No	In 1972 it was placed on the National Register of Historic Places, an honorary designation for significant historic sites.
Grand Isle SP	Jefferson	Louisiana Office of State Parks	N/A	Grand Isle serves as a breakwater with a beach ridge created by the action of the waves of the Gulf	Board walk and hiking trail	Yes	No	Yes, fishing piers	Yes	No	Picnic Areas	Yes	This site has received assistance from the LWCF
Lake Fausse Point SP	Iberia and St. Martin	Louisiana Office of State Parks	6,000	The area surrounding the park was formerly the home site of the Chitimacha Indians.	3 hiking trails	Boat dock and launch with rentals	No	Yes	Yes	Visitor center and conference room	Aphiter, picnic areas	Camp ground and cabins	Nearby historic areas such as the city of St. Martinville and Longfellow-Evangeline State Historic Site.
Locust Grove SHS	West Feliciana	Louisiana Office of State Parks	N/A	The cemetery is all that remains of what was once Locust Grove Plantation, owned by the family of Jefferson Davis's sister, Anna E. Davis Smith.	No	No	No	No	Yes	No	No	No	The small site at Locust Grove, with only 27 plots, represents an era in Louisiana's romantic history.

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
Longfellow Evangeline SHS	St. Martin	Louisiana Office of State Parks	N/A	The structure is an excellent example of a Raised Creole Cottage, an architectural form which shows a mixture of Creole, Caribbean, and French influences.	Hiking trails	No	No	No	Yes	Outdoor classroom, historic and nature programs, museum, historic buildings, daily tours	Picnic areas	No	This site has received assistance from the LWCF
Plaquemine Lock SHS	Iberville	Operated by Iberville Parish and the City of Plaquemine	N/A	Completed in 1909, the lock was significant for having the highest freshwater lift of any lock in the world and a unique engineering design that used a gravity flow principle.	Yes, boardwalks	No	No	Yes	Yes	Daily tours, museum, historic buildings, historic and nature programs	Picnic areas	No	The area includes the Gary James Hebert Memorial Lockhouse, which serves as a museum and visitors center.
Port Hudson SHS	East Feliciana	Louisiana Office of State Parks	N/A	The siege of Port Hudson began on May 23, 1863. Roughly 30,000 Union troops were pitted against 6,800 Confederate troops.	Hiking trails	No	No	No	Yes	Daily tours, museum, historic buildings, historic and nature programs	Picnic areas	No	This site has received assistance from the LWCF
Rosedown Plantation SHS	West Feliciana	Louisiana Office of State Parks	371	Rosedown main house began construction in 1834 and the gardens were the province of Martha and Daniel Turnbull, covering 28 acres	Garden paths	No	No	No	Yes	Daily tours, museum, historic buildings, historic and nature programs	Picnic areas	No	The main house, historic gardens, and 13 historic buildings are preserved as a SHS.

Name	Parish location	Managed by	Size in acres	Brief description	Trails	Boating	Hunting or trapping	Fishing	Observe Birds, Wildlife	Educational programs	Play, picnic, swim	Camping	Other
St. Bernard SP	St. Bernard	Louisiana Office of State Parks	N/A	The park contains a network of man-made lagoons and offers many amenities and activities.	Nature trail	Boat launch nearby	No	Yes	Yes	No	Swimming pool, picnic shelters	Yes	This site has received assistance from the LWCF
Tickfaw SP	Livingston	Louisiana Department of Culture, Recreation and Tourism	1183	Tickfaw State Park, of which the Tickfaw River is the western boundary, includes a cypress/tupelo swamp, a bottomland hardwood forest, and a mixed pine/hardwood forest.	5 hiking trails (4.75 miles)	2 boat ramps	No	Yes, from boat and bank	Bird watching	Classrooms, educational programming, interpretive panels	1 play area, picnic tables, 2 picnic shelters	30 improved campsites, 20 units provided, 14 groups, 1 lodge	Visitor Center

Table 7. FY 2016 Fishing/ Hunting Licenses¹, Boater Registrations

Parish/County	Fishing Licenses		Hunting Licenses	
	Resident Basic	Resident Saltwater	Resident Basic	Resident Boat ² Registrations
Ascension	12,677	9,698	3,769	8,530
Assumption	2,719	1,723	1,041	3,607
East Baton Rouge	21,820	14,571	6,638	16,145
East Feliciana	1,728	897	1,043	1,360
Iberia	9,048	7,790	2,668	7,655
Iberville	3,017	1,594	1,309	3,320
Jefferson	28,040	26,935	4,213	18,627
Lafourche	14,505	13,520	3,869	11,878
Livingston	15,003	10,896	5,630	11,092
Orleans	11,457	10,635	1,452	4,649
Plaquemines	3,178	3,094	945	3,927
Pointe Coupee	2,496	1,060	1469	2,575
St. Bernard	3,727	3,623	869	2,702
St. Charles	5,444	5,031	1,245	4,343
St Helena	428	279	260	243
St. James	2,224	1,766	690	2,135
St. John the Baptist	3,340	3,027	661	2,269
St. Landry	10,080	5,154	5,058	6,082
St. Martin	6,177	3,798	2,490	5,119
St. Mary	6,343	5,130	1,997	7,827
St. Tammany	21,638	20,162	5,481	18,716
Tangipahoa	9,932	8,406	3,677	7,242
Terrebonne	19,036	18,537	4,365	15,029
Washington	3,231	2,095	1,882	3,113
West Baton Rouge	2,732	1,479	1,084	2,191
West Feliciana	1,009	528	557	694
Planning Area Total	221,029	181,428	64,362	171,070
Planning Area Percent of State	55%	72%	40%	54%

¹ Number of licenses issued in Parish granting residents fishing or hunting privileges.

² Resident Boater registration data is for 2011. Source:

<https://www.wlf.louisiana.gov/assets/Resources/Publications/Boating/Motorboat-Registrations-by-Parish-2012-2019.xlsx>

Table 8. Land & Water Conservation Fund (LWCF) Grants in Planning Area for Recreational Resources

Parish/County	Number of Projects	Actual* LWCF Grants Expended
Ascension	21	\$1,421,976.23
Assumption	3	\$601,839.83
East Baton Rouge	58	\$3,729,989.60
East Feliciana	0	0
Iberia	22	\$1,365,375.88
Iberville	9	\$650,839.96
Jefferson	41	\$7,576,078.87
Lafourche	8	\$583,742.13
Livingston	17	\$1,589,164.29
Orleans	25	\$6,610,700.95
Plaquemines	0	0
Pointe Coupee	4	\$554,920.23
St. Bernard	5	\$1,400,201.28
St. Charles	3	\$695,926.27
St Helena	1	\$47,069.44
St. James	9	\$610,103.06
St. John the Baptist	1	\$128,026.56
St. Landry	22	\$1,361,366.10
St. Martin	14	\$910,391.81
St. Mary	22	\$4,236,833.32
St. Tammany	22	\$2,552,834.50
Tangipahoa	21	\$1,544,542.12
Terrebonne	11	\$411,169.36
Washington	6	\$1,409,372.55
West Baton Rouge	9	\$464,343.38
West Feliciana	4	\$387,441.23
Planning Area Total	358	\$40,844,248.95

*LWCF Grant expenditures at the time of award, from 1964 – 2011, are not adjusted for inflation.
 Source: www.nps.gov/subjects/lwcf/annual-reports.htm (1964-2011 grants in Louisiana)

Table 9. Water Quality 305(b) impaired waterbodies in the planning area

Subsegment Number	Description	Water Body Type	Size	PCR	SCR	FWP	DWS	Suspected Causes of Impairment	Suspected Sources of Impairment
LA040605_00	Mississippi Bayou and associated canals; includes Dutch Bayou, Reserve Relief Canal and Hope Canal	R	24.4	F	F	N		Dissolved Oxygen	Source Unknown
LA 040602_00	Lake Maurepas	E	90.5	F	F	N		Dissolved Oxygen	Source Unknown
LA070301_00	Mississippi River-From Monte Sano Bayou to Head of Passes	R	236.0	F	F	F	F		

Table 10. Input values for nutrient concentrations at model boundaries.

Location of boundary	Actual concentrations	Model input concentrations*	Comment
Hope Canal (diversion from Mississippi River)	2.21 mg/L TN 0.25 mg/L TP	1.61 mg/L TN 0.15 mg/L TP	Averages for January 1 – August 31 using USGS data for Mississippi River at Baton Rouge (07374000) and Mississippi River at Belle Chasse (07374525) during 2004 – 2018.
Blind River	1.33 mg/L TN 0.24 mg/L TP	0.73 mg/L TN 0.14 mg/L TP	Median values for LDEQ station 0117 (Blind River near Gramercy) for 1978 – 1998
Mississippi Bayou	0.76 mg/L TN 0.11 mg/L TP	0.16 mg/L TN 0.01 mg/L TP	Median values for Station 5 (Mississippi Bayou) from Rob Lane's 2002 – 2003 data
Reserve Relief Canal	0.79 mg/L TN 0.13 mg/L TP	0.19 mg/L TN 0.03 mg/L TP	Median values for Stations 1 and 2 (Hope Canal) and station 5 (Miss. Bayou) from Rob Lane's 2002 – 2003 data
Pass Manchac	0.90 mg/L TN 0.10 mg/L TP	0.30 mg/L TN 0 mg/L TP	Median values for LDEQ station 0036 (Pass Manchac at Manchac) for 1978 – 2016

* Model input concentrations are actual concentrations minus background concentrations.

Table 11. Input values for salinity concentrations at model boundaries.

Location of boundary	Model input values	Comment
Hope Canal (diversion from Mississippi River)	0.20 ppt	Median value for LDEQ stations 0047 (Mississippi River at Luling) and 0048 (Mississippi River near Luling) for 1978 – 1989
Blind River	0.30 ppt	Median value for LDEQ station 0117 (Blind River near Gramercy) for 1978 – 1998
Mississippi Bayou	0.25 ppt	Median value for station 5 (Mississippi Bayou) from Rob Lane’s 2002 – 2003 data
Reserve Relief Canal	0.30 ppt	Median values for stations 1 and 2 (Hope Canal) and station 5 (Miss. Bayou) from Rob Lane’s 2002 – 2003 data
Pass Manchac	5.0 ppt	Because the source of the initial salinity in Lake Maurepas and the Maurepas swamp is exchange with Lake Pontchartrain (via Pass Manchac), then the salinity in Pass Manchac should be similar to the initial value for Lake Maurepas and the Maurepas swamp.

Note: For Project Impacts, use model result data from the H&H Modeling Report (2-1-21) Section 10.3 (TN and TP) and 10.4 (Salinity). USGS Site ID 300602090375100 CRMS5373-H01-RT also has data on salinity

Table 12. Summary statistics for Total Nitrogen (TN) and Total Phosphorus (TP) in Maurepas Swamp

Sampling location ^A	Period of record for nutrient data	TN data			TP data		
		No. of values	Median (mg/L)	Range (mg/L)	No. of values	Median (mg/L)	Range (mg/L)
Sites within the Maurepas swamp simulation area:							
Site 1 (Hope Canal)	4/4/02 - 5/13/03	11	0.79	0.51 - 1.32	11	0.75	0.04 - 1.21
Site 2 (Hope Canal)	4/4/02 - 5/13/03	11	0.78	0.61 - 1.52	11	0.15	0.07 - 0.66
Site 3 (Hope Canal)	4/4/02 - 5/13/03	11	0.82	0.57 - 1.75	11	0.13	0.05 - 1.00
Site 4 (Dutch Bayou)	4/4/02 - 5/13/03	11	0.65	0.49 - 1.58	11	0.11	0.05 - 0.20
Site 5 (Mississippi Bayou)	4/4/02 - 5/13/03	11	0.76	0.45 - 3.89	11	0.11	0.04 - 0.85
Site 0155 (Mississippi Bayou)	5/20/86 - 4/14/98	45	1.00	0.56 - 3.01	45	0.20	0.06 - 0.51
Site 4870 (Dutch Bayou)	10/3/17 - 4/13/18	7	0.94	0.37 - 4.15	7	0.15	0.09 - 0.19
Sites in Lake Maurepas:							
Site 16 (Lake Maurepas - SW)	4/4/02 - 5/13/03	12	0.64	0.44 - 2.42	12	0.11	0.01 - 0.20
Site 17 (Lake Maurepas - S)	4/4/02 - 5/13/03	12	0.59	0.39 - 0.99	12	0.12	0.08 - 0.17
Site 18 (Lake Maurepas - E)	4/4/02 - 5/13/03	11	0.58	0.43 - 0.91	11	0.10	0.04 - 0.16
Site 19 (Lake Maurepas - NE)	4/4/02 - 5/13/03	12	0.53	0.40 - 0.90	12	0.11	0.06 - 0.35
Site 1105 (Lake Maurepas - N)	1/9/01 - 9/25/07	24	0.67	0.30 - 1.82	24	0.09	0.05 - 0.19
Site 4471 (Lake Maurepas - SW)	10/1/13 - 4/3/18	19	0.85	0.35 - 1.39	19	0.15	0.05 - 0.29
Sites representing inflow entering the simulation area:							
Site 11 (Blind River)	4/4/02 - 5/13/03	12	0.60	0.46 - 0.82	12	0.10	0.05 - 0.69
Site 0036 (Pass Manchac)	3/6/78 - 9/8/16	290	0.90	0.09 - 5.54	291	0.10	< 0.05 - 0.51
Site 0228 (Amite River)	1/16/01 - 4/10/18	54	0.86	0.34 - 2.83	56	0.12	0.05 - 0.38
Site 0243 (Blind River)	1/16/01 - 4/10/18	62	0.82	0.24 - 1.42	64	0.15	0.05 - 0.44
Site 0268 (Amite R. Diversion Canal)	1/16/01 - 4/10/18	55	0.86	0.39 - 1.74	58	0.13	0.05 - 0.30
Site 1102 (Blind River near mouth)	1/16/01 - 4/10/18	62	0.80	0.20 - 4.40	64	0.15	0.05 - 0.29

Site 1106 (Tickfaw River)	1/9/01 - 9/3/15	48	0.98	0.21 - 2.57	56	0.13	0.05 - 0.39
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Notes: A.Site numbers between 1 and 19 are Rob Lanes monitoring sites. Site numbers between 0036 and 4870 are LDEQ monitoring sites

Table 13. Algal blooms recorded within Lake Maurepas and Lake Pontchartrain between 2000-2019

	January	February	March	April	May	June	July	August	September	October	November	December
2000												
2001												
2002												
2003				●		■					■	
2004							■					
2005												
2006								○				
2007												
2008					○	●	●	○				
2009												
2010												
2011							■	○				
2012								○				
2013	●				●	■	○	●	○			
2014												
2015												
2016								●	○			
2017								○				●
2018		●	●	●	●							●
2019						○	○	●	○	●	●	●

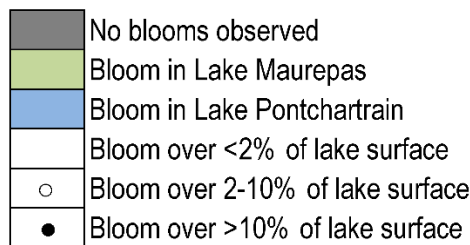


Table 14. Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances

Noise Source	50 ft	100 ft	200 ft	500 ft	1000 ft
Backhoe	78 dBA	72 dBA	68 dBA	58dBA	52 dBA
Dump Truck	76 dBA	70 dBA	64 dBA	56dBA	50 dBA
Excavator	81 dBA	75 dBA	69 dBA	61dBA	55 dBA
Front End Loader	79 dBA	73 dBA	67 dBA	59dBA	53 dBA
Bulldozer	82dBA	76 dBA	70 dBA	62dBA	56 dBA
Hydraulic Cutterhead Dredge	No data available	No data available	79 dBA	No data available	64 dBA
Airboat	59 dBA	No data available	No data available	No data available	40 dBA

- The dBA at 50 ft is a measured noise emission. The 100- to 1,000-ft results are modeled estimates. Source: FHWA 2006. "Highway Construction Noise Handbook"
- <https://www.tremr.com/007pandas/death-lax-regulations-noisy-airboats>

Table 15. Farms and Farm Land

Farms and Farm Land						
U.S. Department of Agriculture (USDA); Census of Agriculture						
	2007		2012		2017	
	Farms (No.)	Land (Acres)	Farms (No.)	Land (Acres)	Farms (No.)	Land (Acres)
East Feliciana Parish	439	128,167	399	112,529	412	130,971
West Baton Rouge Parish	128	25,820	106	30,300	111	34,085
Iberville Parish	175	85,729	165	163,340	151	181,624
St. Tammany Parish	602	45,506	604	34,113	994	43,048
St. James Parish	64	43,251	63	39,942	56	50,580
Ascension Parish	277	45,455	250	50,456	221	38,381
East Baton Rouge Parish	511	72,165	432	57,542	449	58,280
Pointe Coupee Parish	441	190,550	393	182,214	482	187,674
St. Charles Parish	58	D	70	16,216	67	14,337
St. John the Baptist Parish	23	10,758	31	13,699	22	19,885
St. Mary parish	142	72,728	128	76,085	98	80,168
Tangipahoa Parish	1,188	123,861	1,070	106,710	967	98,090

Table 16. Previously Constructed Wetland or Ecosystem Restoration Projects in the Deltaic Plain

Program	Parish	Year Constructed	Project Description
BERM (BA-40): Riverine Sand Mining/Scofield Island Restoration	Plaquemines	2013	The goal of this project was to transport sediments from the Mississippi River to restore dune and marsh habitat on Scofield Island.^
BERM (BA-110): Shell Island East Berm	Plaquemines	2014	The purpose of this project was to restore the integrity of Shell Island, reduce wave energies within the bay area, and re-establish productive habitat to Bastian Bay and the surrounding area. ^
DOTD: I-310 Mitigation	St. Charles	1993	Mitigation for environmental impacts associated with the construction of Interstate 310 which was completed in 1993 in St. Charles Parish, Louisiana (USACE 2013).
CDBG (TE-78): Cut-Off/Pointe aux Chene Levee	Lafourche	2019	This project will fill in the missing gap that is currently in the existing levee system. The 2.5 miles levee will be constructed along Grand Bayou and tie into the existing levee systems on each end. Construction began in August 2017 and completed in 2019.^@~
CIAP (BA-15-X2): Lake Salvador Shoreline Protection-Phase III	St. Charles	2009	A shoreline protection project, located near Bayou des Allemands along the northwestern Lake Salvador shoreline, tying into the western BA-15 CWPPRA shoreline protection feature and extending approximately 1.5 miles east. *+^
CIAP (BA-30-EB): East Grand Terre	Plaquemines	2010	The project goal is to restore barrier shoreline and marsh by dredging 3.3 million cubic yards of shore material and rebuilding the island. The project was designed under the CWPPRA program and constructed under the CIAP program. ^
CIAP (BA-36-EB): Barataria Land Bridge Dedicated Dredging	Jefferson	2010	Located along the southern shoreline of Bayous Perot and Rigolettes, the project created and/or nourished approximately 1,200 acres of marsh in conjunction with CWPPRA project BA-36 (Dedicated Dredging on the Barataria Basin Landbridge). ^
CIAP (BA-43-EB): Mississippi River Long Distance Sediment Pipeline	Jefferson	2016	The deposition of dredged material from the Mississippi River by long distance pipeline from the Mississippi River to locations within central Barataria Basin for marsh creation and restoration. *+ @^
CIAP (BA-45-EB): Caminada Headlands	Lafourche	2014	The proposed project will restore and protect beach and dune habitat across the Caminada Headland through the direct placement of sediment from offshore borrow areas. ^
CIAP (BA-58): Fringe Marsh Repair	Plaquemines	2014	This program involves the reestablishment of critical areas of fragile marsh in lower Plaquemines Parish to help minimize the continued fragmentation of wetland systems throughout the coast. ^@
CIAP (BA-59): Waterline Booster Pump Station, West Bank	St. James	2010	The project includes the installation of a waterline booster pump station in Welcome, Louisiana along Louisiana Highway 18 on the west bank of the Mississippi River in St. James Parish. *+

Program	Parish	Year Constructed	Project Description
CIAP (BA-61): West Bank Wetland Conservation and Protection	St. James	2010	Acquisition and preservation of approximately 235 acres of existing wetlands along Louisiana Highway 20 in St. James Parish near the communities of South Vacherie and Chackbay to protect the natural habitat from future development. The purchase was completed in 2010. *+
CIAP (BA-155): Fifi Island Restoration	Jefferson	2015	This shoreline protection projection includes the construction of approximately 10,000 linear feet of rock to protect island habitat.^
CIAP (BA-161): Mississippi River Water Reintroduction Into Bayou Lafourche - BLWFD	Assumption; Lafourche	2016	The implementation of features and improvements determined to be the most beneficial in order to improve the capacity of Bayou Lafourche to allow for increased flows through the bayou. The project is anticipated to benefit the Terrebonne and Barataria Basins through reductions in the salinities and/or nourishment of wetlands with the introduction and distribution of sediment and nutrients from the river. ^@ #
CIAP (BA-162-SPER): Shoreline Protection Emergency Restoration	Plaquemines	2013	This project consists of a series of submerged wave breaks surrounding shoreline segments in Lower Plaquemines Parish to protect the oil damaged shores along the existing island remnants from further wave damage while also collecting sediment in order to naturally rebuild the degraded infrastructure of the islands.^
CIAP (PO-36EB): Orleans Land Bridge Shoreline Protection and Marsh Creation	Orleans	2013	This project provides shoreline protection on the northwest rim of Lake Borgne west of Alligator Point.^
CIAP (PO-39): Bald Cypress/Tupelo Coastal Forest	Livingston	2011	Acquisition and preservation of approximately 2,600 contiguous acres of coastal wetland forest, specifically bald cypress-tupelo swamp within the Maurepas Swamp in Livingston Parish, Louisiana (USACE 2013).
CIAP (PO-43): East Labranche Shoreline Protection	St. Charles	2015	A shoreline protection project which includes the construction of a rock dike along the southern shoreline of Lake Pontchartrain tying into the existing PO-03b LaBranche Wetland shoreline protection project, and continuing east along the shoreline. The project is designed to stop wave-induced shoreline erosion and protect the wetland habitat behind the structure (USACE 2013).
CIAP (PO-48): Green Property Preservation Project	St. Tammany	2011	Property acquisition and preservation of approximately 27 acres of cypress swamp and bottomland hardwood forests within the Bayou Lacombe watershed in St. Tammany Parish, Louisiana. Purchase completed August 2011 (USACE 2013).

Program	Parish	Year Constructed	Project Description
CIAP (PO-49): French Property Preservation Project	St. Tammany	2009	Property acquisition of approximately 40 acres of pine trees and mixed hardwoods to aid in the extension of the wildlife corridor between critical habitats along Bayou Liberty in St. Tammany Parish, Louisiana. The property will also be utilized for educating the public on wetland value (USACE 2013).
CIAP (PO-51): Mandeville Aquatic Ecosystem Restoration Project	St. Tammany	2010	Upgrade of the existing wastewater treatment plant including the addition of a wetland assimilation system for disbursement of treated sewerage effluent into an adjacent wetland area on to the western border of the City of Mandeville, Louisiana. Added benefits of the assimilation will be the increase of wetland vegetation to an area impacted during Hurricanes Katrina and Rita (USACE 2013).
CIAP (PO-73-2): Central Wetlands Demonstration	Orleans	2016	This demonstration project investigates the beneficial use of Ferrate as an alternative to chlorine to treat effluent at the East Bank Sewer Treatment Plant. [^]
CIAP (PO-73-1): Central Wetlands-Riverbend	St. Bernard	2015	This project involves the discharge of effluent from the oxidation plant to be discharged into the Central Wetlands. This would allow vegetation to prosper once again in the area. [^]
CIAP (PO-73-3): Central Wetlands Demonstration Expansion	Orleans	2016	The project would restore up to 17.2 acres of critical wetlands within the Central Wetlands area. [^]
CIAP (PO-148): Living Shoreline	St. Bernard, Jefferson, Orleans	2017	The primary project objective involves the construction of bioengineered oyster reefs along coastal fringe marsh in St. Bernard Parish. The installation will take place from Eloi Point to the mouth of Bayou La Loutre around Lydia Point and Paulina Point extending around the southern shore of Treasure Bay. Other related Living Shoreline projects are in Plaquemines Parish and Jefferson Parish. [^]
CIAP (TE-43-EB): GIWW Bank Restoration of Critical Areas in Terrebonne	Terrebonne	2011	The project restored critical lengths of deteriorated channel banks with shoreline stabilization materials. [^]
CIAP (TE-125): Bush Canal and Bayou Terrebonne Bank Stabilization	Terrebonne	2007	This project reconstructed the south bank of Bush Canal using material dredged from the canal. The restored bank-line was then covered with geotextile fabric and armored with stone rip-rap. The rebuilt bank-line will help to diminish storm surge as well as reduce saltwater intrusion. This project was funded by the CIAP of 2001 (CPRA 2014).
CWPPRA (AT-02): Atchafalafaya Sediment Delivery	St. Mary	1998	The enhancement of natural delta growth by re-opening Natal Channel and Castille Pass. Material dredged as a result of construction was strategically placed at elevations mimicking natural delta lobes. [^]

Program	Parish	Year Constructed	Project Description
CWPPRA (AT-03): Big Island Mining	St. Mary	1998	Creation of a western delta lobe behind Big Island to enhance the accretion of land beyond the west bank of the Atchafalaya River.^
CWPPRA (BA-02): GIWW to Clovelly Hydrologic Restoration	Lafourche	2000	Impede increasing salinity within the project area by the use of hydrologic restoration features such as plugs and weirs to hinder salt water intrusion and decrease marsh loss. Shoreline protection features along the Bay L'Ours were also constructed to lessen wave induced erosion and reduce marsh loss. The project is located east of the communities of Larose and Cutoff in Lafourche Parish, Louisiana and adjacent to Little Lake.*^
CWPPRA (BA03C): Naomi Outfall Management	Jefferson; Plaquemines	2002	The management of freshwater, sediment, and nutrients diverted from the Mississippi River via the Naomi Siphon (BA-03) into the project area located between the communities of Naomi/La Reusitte and Lafitte in Jefferson Parish, Louisiana including The Pen. The project goal is to decrease salinities and reduce marsh loss.*^
CWPPRA (BA-15): Lake Salvador Shoreline Protection Demonstration	St. Charles	1998	The maintenance of shoreline integrity along the northern Lake Salvador shoreline east of Baie du Cabanage and help re-establish the natural hydrology of interior marsh. Phase I of the project was constructed to demonstrate the effectiveness of four separate types of segmented breakwaters in a poor soil environment. Phase II of the project included the installation of continuous rock structure along the western section of the lake.*^
CWPPRA (BA-19): Barataria Bay Waterway Wetland Restoration	Jefferson	1996	The project beneficially used dredge material to enlarge Queen Bess Island.^
CWPPRA (BA-20): Jonathan Davis Wetland Restoration	Jefferson	2003; 2012	The goal of this project is to restore the natural hydrologic conditions of the area and reduce shoreline erosion. The goal was partly accomplished through constructing a series of water control structures. Additional features were constructed as part of unit 4 consisting of rock rip rap revetment, concrete sheetpile wall, plugs, and marsh creation.*^
CWPPRA (BA-23): Barataria Bay Waterway (BBWW) West Side Shoreline Protection	Jefferson	2000	Construction of approximately 1.75 miles of rock dike along the west bank of BBWW near Dupre Cut to protect the adjacent marsh from unnatural water exchange and subsequent erosion. ^
CWPPRA (BA-26): Barataria Bay Waterway (BBWW) East Side Shoreline Protection	Jefferson	2001	Construction of approximately 3.3 miles of levee and rock armor along the eastern bank of BBWW near Dupre Cut to protect the adjacent marsh from excessive tidal action and saltwater intrusion.^

Program	Parish	Year Constructed	Project Description
CWPPRA (BA-27): Barataria Basin Landbridge Shoreline Protection, Phase 1 & 2	Jefferson; Lafourche	2009	Construction of approximately 13.5 miles of shoreline protection along the eastern bank of Bayou Rigolettes to inhibit the erosion on the southwestern shoreline of Bayou Perot and the southeastern shoreline of Bayou Rigolettes. ^
CWPPRA (BA-27C): Barataria Basin Landbridge Shoreline Protection, Phase 3 CU 7 and 8	Jefferson; Lafourche	1999, 2008, 2017	Construction of shoreline protection along the southern end of Bayous Perot and Rigolettes confluence with Little Lake and Harvey Cutoff Canal. The project tested sections of different shoreline protection types such as concrete panel wall, rock, and light rock. Portions were constructed in 1999, 2008, and 2017. ^@
CWPPRA (BA-27D): Barataria Basin Landbridge Shoreline Protection, Phase 4	Jefferson	2006	This project consists of a foreshore rock dike with incorporated fish passages and openings at historic natural channels to inhibit shoreline erosion and deterioration of the Barataria Landbridge. ^
CWPPRA (BA-28): Vegetative Plantings of a Dredged Material Disposal Site on Grand Terre Island	Jefferson	2001	This project involved the installation of vegetative plantings on previously constructed marsh and dune platform on Grand Terre Island. ^
CWPPRA (BA-34-2): Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp	St. James	2018	The project goal is to increase the health of the swamp ecosystem by increasing water flow via gaps cut in the spoil bank, breaching internal impediments, and reestablishing natural channels. Native vegetation will also be planted at the site. ^
CWPPRA (BA-35): Pass Chaland to Grand Bayou Pass	Plaquemines	2009	This project involves the creation of a dune and marsh platform on the north side of the Gulf of Mexico adjacent to Bay Joe Wise. ^
CWPPRA (BA-36): Dedicated Dredging on the Barataria Basin Landbridge	Jefferson	2010	The construction of approximately 1,211 acres of intertidal marsh utilizing dredge material in two contained marsh creation areas. In addition, material was placed in adjoining fill areas to nourish approximately 1,578 acres of marsh in conjunction with CIAP BA-36(EB). ^
CWPPRA (BA-37): Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake	Lafourche	2007	This project protects the Little Lake shoreline, creates intertidal wetlands, and nourishes fragmented, subsiding marsh. This project is designed to protect area wetlands, which currently experience high rates of shoreline erosion. ^
CWPPRA (BA-38): Pelican Island and Pass La Mer to Chaland Pass Restoration	Plaquemines	2012	The objective of this project is to create barrier island habitat, enhance storm-related surge and wave protection, prevent overtopping during storms, and increase the volume of sand within the active barrier system. ^

Program	Parish	Year Constructed	Project Description
CWPPRA (BA-39): Bayou Dupont Sediment Delivery System	Jefferson; Plaquemines	2010	Dredged material from the Mississippi River near La Reussite, Louisiana was pumped into confined open water areas south of Cheniere Traverse Bayou and adjacent to the West Plaquemines non-federal levee using a pipeline conveyance system to create and restore marsh. Additional grant funded received by the State of Louisiana from The American Recovery and Reinvestment Act of 2009 (ARRA) was added to this project to create approximately 100 additional acres of marsh.*^ This project is part of the State Master Plan 2017: 002.MC.05e Large-Scale Barataria Marsh Creation - Component E.
CWPPRA (BA-41): South Shore of the Pen Shoreline Protection and Marsh Creation	Jefferson	2012	This project involves the construction of concrete pile and panel wall and 2 miles of rock revetment along the south shore of The Pen and Bayou Dupont. Dedicated dredging was used to create and nourish marsh, within the triangular area bounded by the south shore of The Pen, the Barataria Bay Waterway (Dupre Cut) and the Creole Gas Pipeline Canal. ^
CWPPRA (BA-42): Lake Hermitage Marsh Creation	Plaquemines	2015	The creation of wetlands and the reduction of tidal exchange in marshes surrounding Lake Hermitage using material dredged from the Mississippi River. ^
CWPPRA (BA-48): Bayou Dupont Marsh and Ridge Creation	Jefferson	2016	Long distance pumping of Mississippi River sediment to create marsh, to nourish marsh and create a maritime ridge. ^@ This project is part of the State Master Plan 2017: 002.MC.05e Large-Scale Barataria Marsh Creation - Component E.
CWPPRA (BA-68): Grand Laird Marsh and Ridge Restoration	Plaquemines	2015	This project will create and nourish marsh and build about 20,000 ft of ridge.^
CWPPRA (BA-125): Northwest Turtle Bay Marsh Creation	Jefferson	2021	This project involves the creation and nourishment of marsh using sediment dredged from Turtle Bay or Little Lake. % ^@ This projects is part of the State Master Plan 2017: 002.MC.04a Lower Barataria Marsh Creation - Component A
CWPPRA (BA-164): Bayou Dupont Sediment Delivery - Marsh Creation #3 and Terracing	Plaquemines	2018	This project involves dedicated dredging from the Mississippi River to create and nourish marsh in the vicinity of Bayou Dupont.^ This project is part of the State Master Plan 2017: 002.MC.05e Large-Scale Barataria Marsh Creation - Component E.
CWPPRA (BS-03A): Caernarvon Diversion Outfall Management	Plaquemines	2002	The enhancement of marsh to increase the utilization of freshwater, nutrients, and sediments provided by the Mississippi River through the Caernarvon Freshwater Diversion Structure.^
CWPPRA (BS-11): Delta Management at Fort St. Phillip	Plaquemines	2006	Enhancement of the delta building process occurring due to the crevasse at Fort St. Phillip.^
CWPPRA (BS-16): South Lake Lery Shoreline and Marsh Restoration	Plaquemines	2017	The project involves dredging sediment to create approximately 400 acres of marsh and restore 32,000 feet of southern Lake Lery shoreline. ^

Program	Parish	Year Constructed	Project Description
CWPPRA (LA-05): Floating Marsh Creation Demonstration	Terrebonne	2006	A demonstration project developed and tested the creation of floating marsh made of buoyant vegetated mats or artificial islands.^
CWPPRA (LA-09): Sediment Containment System for Marsh Creation Demonstration	St. Charles	2013	The demonstration project utilizes an unconventional sediment containment system for marsh creation.^
CWPPRA (MR-03): West Bay Sediment Diversion	Plaquemines	2003	This project consists of a conveyance channel for large-scaled uncontrolled diversion of freshwater and sediments from the Mississippi River.^
CWPPRA (MR-06): Channel Armor Gap Crevasse	Plaquemines	1997	The project consists of deepening the invert of the existing 150 foot wide gap in the Mississippi River Channel bank armor. The existing invert was lowered to -4.0 feet NGVD. In addition, an existing earthen channel leading from the armored gap to the open water area beyond the bank were enlarged. Excavated material from the outfall channel was cast adjacent to the channel in a manner conducive to marsh nourishment.^
CWPPRA (MR-09): Delta Wide Crevasses	Plaquemines	1999	The objective of this project is to promote the formation of emergent freshwater and intermediate marsh in shallow, open water areas of the Pass-a-Loutre Wildlife Management Area and the Delta National Wildlife Refuge by either cleaning existing splays of creating new ones.^
CWPPRA (MR-10): Dustpan Maintenance Dredging Operations for Marsh Creation in the Mississippi River Delta Demonstration	Plaquemines	2002	This project demonstrated the beneficial use of dredged material from routine maintenance of the Mississippi River Navigation Channel by using a dustpan hydraulic dredge to create and restore adjacent marsh. Approximately 40 acres of deteriorated marsh that had converted to shallow open water were restored with approximately 222,000 cubic yards of dredging material. ^
CWPPRA (PO-06): Fritchie Marsh Restoration	St. Tammany	2001	Remediation of the causes of wetland loss in the area and to improve habitat for wildlife and fisheries by increasing the flow of freshwater into the marsh and managing the outfall.^
CWPPRA (PO-16): Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	Orleans	1996	Removal of excess water during the spring and summer from the isolated units 3 and 4 of the Bayou Sauvage Wildlife Refuge created by the Lake Pontchartrain Hurricane Protection levee. ^
CWPPRA (PO-17): Bayou Labranche Wetland Creation	Orleans	1994	The project involves dredging sediments from the Lake Pontchartrain to create vegetated wetlands in an area roughly bounded by I-10, Lake Pontchartrain, Bayou Lafourche.^

Program	Parish	Year Constructed	Project Description
CWPPRA (PO-18): Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	St. Charles	1997	Maintenance of water levels at 5 feet above or below marsh elevation to promote vegetation growth in the project area.^
CWPPRA (PO-19): Mississippi River Gulf Outlet Disposal Area Marsh Protection	St. Bernard	1999	Preservation of vegetated wetlands by repairing the lateral and rear dikes of the Mississippi River Gulf Outlet disposal area.^
CWPPRA (PO-22): Bayou Chevee Shoreline Protection	Orleans	2001	The project consists of constructing an earthen, erodible dike to contain dredged material from Lake Pontchartrain and create about 150 acres of marsh.^
CWPPRA (PO-24): Hopedale Hydrologic Restoration	St. Bernard	2005	The replacement of collapsed culverts installed in the 1950s near Yscloskey to abate site-specific wetland loss.^
CWPPRA (PO-27): Chandeleur Islands Marsh Restoration	St. Bernard	2001	Vegetation plantings to assist and accelerate the recovery of barrier island areas overwashed by Hurricane Georges in 1998.^
CWPPRA (PO-30): Lake Borgne Shoreline Protection	St. Bernard	2008	Maintenance of the integrity of the narrow strip of marsh that separates Lake Borgne from the Mississippi River Gulf Outlet through the construction of a continuous nearshore rock breakwater.^
CWPPRA (PO-33): Goose Point/Point Platte Marsh Creation	St. Tammany	2009	The creation of marsh and nourishment of degraded marsh along the northern shoreline of Lake Pontchartrain.^ This project is also a part of the State Master Plan 2017: 001.MC.106 St. Tammany Marsh Creation.
CWPPRA (PO-104): Bayou Bonfouca Marsh Creation	St. Tammany	2018	Creation of emergent brackish marsh to stabilize the landform separating Lake Borgne from the MRGO.^ This project is also a part of the State Master Plan 2017: 001.MC.106 St. Tammany Marsh Creation.
CWPPRA (TE-17): Falgout Canal Planting Demonstration	Terrebonne	1996	Vegetation planting and wave dampening devices placed along the Falgout Canal.^
CWPPRA (TE-18): Timbalier Island Planting Demonstration	Terrebonne	1996	The installation of sand fences and vegetation plantings in several areas of Timbalier Island to trap sand and buffer wind and wave energy.^
CWPPRA (TE-20): Isles Dernieres Restoration East Island	Terrebonne	1999	Restoration of coastal dunes and wetlands of the Eastern Isles Dernieres barrier island chain. Hydraulically filled area on the island to create an elevated marsh platform. Sand fences and vegetation were also installed to stabilize the sand and minimize wind-driven transport.^
CWPPRA (TE-22): Point au Fer Canal Plugs	Terrebonne	1997	The reduction of saltwater intrusion into Point au Fer marshes without reducing freshwater back flooding from the Atchafalaya River. ^

Program	Parish	Year Constructed	Project Description
CWPPRA (TE-23): West Belle Pass Headland Restoration	Lafourche	1998	The project reduces the encroachment of Timbalier Bay into the marshes on the west side of Bayou Lafourche with the use of dedicated dredged materials to create marsh on the west side of Belle Pass. A water control structure was placed in the Evans Canal and plugs on the other canals.^
CWPPRA (TE-24): Isles Dernieres Restoration Trinity Island	Terrebonne	1999	The restoration of Trinity Island wetlands of the Isles Dernieres chain, enhance the physical integrity of the island, and protect the lower Terrebonne estuary.^
CWPPRA (TE-25): East Timbalier Island Sediment Restoration, Phase 1	Lafourche	2001	The placement of sediment in three embayments along the landward shoreline of East Timbalier Island. The project also included aerial seeding of the dune platform, installation of sand fencing, and dune vegetation plantings.^
CWPPRA (TE-26): Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island	Terrebonne	1999	The restoration of marshes west of Lake Chapeau, re-establishment of the hydrologic separation of the Locust Bayou and Alligator Bayou watersheds, and re-establishment of the natural drainage patterns within the Lake Chapeau area.^
CWPPRA (TE-27): Whiskey Island Restoration	Terrebonne	2000	The project created and restored beaches and back island marshes on Whiskey Island.^
CWPPRA (TE-28): Brady Canal Hydrologic Restoration	Terrebonne	2000	The maintenance of fragile, highly-fragmented transitional marshes between the fresh and estuarine zones by enhancing freshwater, sediment, and nutrient delivery to the area. ^
CWPPRA (TE-29): Raccoon Island Breakwaters Demonstration	Terrebonne	1997	The project protects the replenished beaches and wetlands of Raccoon Island and protect back barrier and mainland marshes with segmented breakwaters. ^
CWPPRA (TE-30): East Timbalier Island Sediment Restoration, Phase 2	Lafourche	2000	The project places dredged material along the landward shoreline of East Timbalier Island. Additional rock has been placed on the existing breakwater in front of the island, which will help protect the created area from erosion.^
CWPPRA (TE-34): Penchant Basin Natural Resources Plan, Increment 1	Terrebonne	2011	The diversion of freshwater flow from northwestern to southeastern sub project area coupled with protection measures to reduce inundation of fragile marsh areas in overall Penchant Basin in Terrebonne Parish.^
CWPPRA (TE-36): Thin Mat Floating Marsh Enhancement Demonstration	Terrebonne	2000	The objective of this project was to induce the development of thick-mat, continuously floating marsh from a thin-mat flotant using various combinations of treatments including fertilization, herbivory reduction, and transplanting healthy, thick-mat marsh plugs into the thin-mat flotant.^

Program	Parish	Year Constructed	Project Description
CWPPRA (TE-37): New Cut Dune and Marsh Restoration	Terrebonne	2008	The closure of the breach between East and Trinity Islands that was originally created by Hurricane Carmen in 1974 and subsequently enlarged by Hurricanes Juan (1985) and Andrew (1992). [^]
CWPPRA (TE-39): South Lake Decade Freshwater Introduction	Terrebonne	2011	This project involves the construction of a water control structure in the southern bank of Lake DeCade. The structure increases the amount of Atchafalaya River water and sediment introduced into the marshes south of the lake. In addition, shoreline protection was implemented adjacent to the proposed structure, and a weir in Lapeyrouse Bayou was removed. [^]
CWPPRA (TE-40): Timbalier Island Dune and Marsh Creation	Lafourche	2004	The objective of this project was to restore the eastern end of the Timbalier Island by the direct creation of beach, dunes, and marsh. [^]
CWPPRA (TE-41): Mandalay Bank Protection Demonstration	Terrebonne	2003	The development of new techniques for protecting and restoring organic soils, which can be easily eroded. Intact banks and breakthroughs were treated to determine the cost-effectiveness of demonstrated approaches. The project allows the evaluation of several low-cost solutions for restoring habitat in blowout areas and preventing bank erosion. [^]
CWPPRA (TE-43): GIWW Bank Restoration of Critical Areas in Terrebonne	Terrebonne	2014	The project objective was to restore critical lengths of deteriorated channel banks and stabilize/armor selected critical lengths of deteriorated channel banks with shoreline stabilization materials. [^]
CWPPRA (TE-44): North Lake Mechant Landbridge Restoration	Terrebonne	2009	The maintenance and restoration of the landbridge between Lake Mechant north shoreline and the Small Bayou La Pointe Ridge, which provides a hydrologic barrier between brackish and low-salinity habitats. [^]
CWPPRA (TE-45): Terrebonne Bay Shoreline Protection Demonstration	Terrebonne	2007	The project was intended to evaluate several different shoreline protection methods, including concrete mats, artificial oyster reefs, and A-Jacks. [^]
CWPPRA (TE-46): West Lake Boudreaux Shoreline Protection and Marsh Creation	Terrebonne	2008	The creation and nourishment of marsh along the western shoreline of Lake Boudreaux to protect the shoreline from erosion due to direct exposure to lake wave energy and to restore interior marsh lost to subsidence and saltwater intrusion. [^]
CWPPRA (TE-48): Raccoon Island Shoreline Protection and Marsh Creation	Terrebonne	2007, 2013	The protection of the existing southern shoreline of the Raccoon Island by constructing rock breakwaters and creating marsh on the landward side of the island using dredged material. [^]
CWPPRA (TE-50): Whiskey Island Back Barrier Marsh Creation	Terrebonne	2010	The recreation of a back barrier marsh platform on which the barrier island can migrate to increase the longevity of the previously restored and natural portions of the island. [^]

Program	Parish	Year Constructed	Project Description
CWPPRA (TE-52): West Belle Pass Barrier Headland Restoration	Lafourche	2012	The re-establishment of the West Belle headland by rebuilding a large portion of the beach, dune, and back barrier marsh that once existed. ^
CWPPRA (TE-53): Enhancement of Barrier Island Vegetation Demonstration	Terrebonne	2011	The project focused specifically on enhancing the establishment and growth of transplants of both dune and marsh vegetation and black mangrove. ^
CWPPRA (TE-72): Lost Lake Marsh Creation and Hydrologic Restoration	Terrebonne	2019	The restoration of an important feature of structural framework between Lake Paige and Bayou Decade to prevent the coalescence of those two water bodies and increase the delivery of fresh water, sediments, and nutrients into the marshes north and west of Lost Lake including the reduction of fetch in open water area via construction of a terrace field. ^ This projects is a part of the State Master Plan 2017: 03a.MC.101 North Lake Mechant Marsh Creation.
CWPPRA (TV-04): Cote Blanche Hydrologic Restoration	St. Mary	1998	The reduction of future shoreline loss from wave erosion, reduction of excess tidal fluctuations and rapid tidal exchange to prevent scouring of interior marsh, develop a hydrologic regime conducive to sediment and nutrient deposition, and to re-establish vegetation in eroded areas. ^
CWPPRA (TV-15): Sediment Trapping at "The Jaws"	St. Mary	2005	The construction of wetland terraces to reduce wave fetch and promote sedimentation for the creation of emergent vegetated wetlands. Distributary channels were dredged to deliver water and sediment to the project area. ^
FEDERAL (TE-82): Lost Lake Vegetation	Terrebonne	2011	This coastal vegetative planting project is for erosion control and habitat restoration in the Lost Lake area of southwestern Terrebonne Parish ^
FEMA (TE-133): Isle Dernieres (Whiskey Island)	Terrebonne	2000	This 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. ^
Gulf of Mexico Energy Security Act-GOMESA (AT-0017): Bayou Chene Floodgate	St. Mary and Terrebonne	2022	Installation of a floodgate in Bayou Chene to reduce backwater flooding from the Mississippi River.~ https://gov.louisiana.gov/index.cfm/newsroom/detail/3647
GOMESA (TE-0151): Grand Bayou Floodgate	Lafourche	2021	Improvements to the Morganza to the Gulf hurricane protection system.~ https://gov.louisiana.gov/index.cfm/newsroom/detail/3458
HSDRRS (PO-146): LPV Mitigation, Manchac WMA Marsh Creation	St. John the Baptist	2012	The creation of marsh and reduction of erosion by containment dikes with rock and fill areas with dredge material within the Manchac WMA. ^
HSDRRS: HSDRRS Mitigation LPV Milton Island Floodside Intermediate Marsh	St. Tammany	2018	This project consists of approximately 132 acres of intermediate marsh restoration that was achieved by placing dredged material in open water to an elevation conducive for wetland development. Temporary containment features would be constructed to keep material in place. A shoreline restoration feature is proposed to repair a breach in the lake rim. Construction began in August 2015 and was completed in December 2018 (Erwin 2018b, USACE 2012d).

Program	Parish	Year Constructed	Project Description
HSDRRS (PO-145): LPV Task Force Guardian Mitigation- Bayou Sauvage	St. John the Baptist	2018	This project is mitigating approximately 150 acres due to emergency levee work that utilized 2 borrow pits of about 57 acres. It provides for the elimination of non-native trees with spraying and mechanical clearing, and then the replanting of up to 89,000 trees and shrubs of native species. ^ The construction contract was awarded in 2012 and a Notification of Contract Completion was received in 2018 (Landry 2019b).
HSDRRS: HSDRRS Mitigation WBV General Protected Side BLH Wet	Lafourche	2015	Mitigation for West Bank and Vicinity Hurricane Protection Storm Damage Risk Reduction System project impacts to protected side wet bottomland hardwoods (7.27 AAHUs impacted) occurred with the purchase of 11.1 acres from Enterprise Wetlands mitigation bank in February 2015 (USACE 2017b).
HSDRRS: HSDRRS Mitigation WBV JLNHPP Park/404c Millaudon and Horseshoe Canal Floodside Swamp Enhancement	Jefferson	2017	Existing spoil berms were gapped to improve exchange of surface water between swamp habitats in the area (USACE 2015). The project involves restoring hydrologic connection and natural sheet flow across existing impounded swamp habitat to compensate for Park/404c swamp impacts.
HSDRRS: HSDRRS Mitigation LPV Bayou Sauvage Floodside Brackish Marsh	Orleans	2020	This project consists of approximately 85 acres of brackish marsh restoration that was achieved by placing dredged material in open water to elevations conducive for wetland development. The site is self-vegetating with brackish marsh species. Features also include the temporary placement of sheet pile along Irish Bayou to contain dredged material and the construction and rehabilitation of rock dikes along the shoreline of Lake Pontchartrain. Construction began in May 2016 and was completed in June 2020.
HSDRRS: HSDRRS Mitigation LPV Turtle Bayou Protected Side Intermediate Marsh	Orleans	2020	This project consists of approximately 160 acres of intermediate marsh restoration that was achieved by placing dredged material in open water to elevations conducive for wetland development. The site is self-vegetating with intermediate marsh species.

Program	Parish	Year Constructed	Project Description
HSDRRS: HSDRRS Mitigation LPV New Zydeco Ridge Protected Side Bottomland Hardwood Wet and Floodside Brackish Marsh	St. Tammany	2020	The New Zydeco Ridge (NZR) restoration is located on the north shore of Lake Pontchartrain in the north east quadrant of the lake, northwest of U.S. Highway 90, and approximately 5 miles east of Slidell, Louisiana on the Big Branch National Wildlife Refuge. The project consists of creating approximately 159 acres of BLH-Wet habitat and 230 acres of intermediate/brackish marsh habitat. Construction began in November 2016 and was completed in June 2020
HSDRRS: HSDRRS Mitigation WBV JLNHPP Park Yankee Pond and Geocrib Floodside Fresh Marsh Restoration	Jefferson	2019	Approximately 108 acres of fresh marsh was restored by filling Yankee Pond with material dredged from Lake Cataouatche. A rock dike with fish dips was built on the eastern perimeter to separate the marsh from Bayou Segnette. Additionally, approximately 50 acres of marsh were restored by grading an existing dredge material disposal site to achieve target marsh elevations and completing a rock dike with fish dips adjacent to Lake Salvador. Approximately 20 acres of fresh marsh was restored by filling a canal immediately abutting Yankee Pond in the northern part of Jean Lafitte National Park. The canal was filled in with dredged material from Lake Cataouatche. This project is self vegetating with marsh vegetation. Supplemental planting would only occur if the initial vegetation success criteria are not achieved (USACE 2012e). Construction began in 2017 and is was completed in 2019 (Behrens 2019b).
HSDRRS: HSDRRS Mitigation WBV Avondale Protected Side BLH-Dry Restoration		2021	Approximately 920 acres of predominantly invasive and nuisance species were eradicated and the area planted with native, high quality tree and shrub species. This project enhances an existing degraded BLH habitat as mitigation for general protected side BLH-Dry impacts incurred through construction of HSDRSS WBV (USACE 2016b). Construction began in 2016 and was completed in 2021 (Behrens 2019a).
HSDRRS: HSDRRS Mitigation WBV Hwy 307 Flood Side BLH and Swamp		2021	Approximately 420 acres of agland was planted with native, high quality BLH and swamp species. Additionally, the existing berm was gapped to re-establish tidal influence. This project involves restoring BLH and swamp forest for general flood

Program	Parish	Year Constructed	Project Description
			side BLH and swamp impacts incurred through construction of the HSDRRS WBV. Construction began Jan 2021 and was completed June 2021.
HSDRRS: Previously Authorized Mitigation WBV	Jefferson; St. Charles	2021	Mitigation for Pre-Katrina West Bank and Vicinity Hurricane Protection project impacts by land acquisition, preservation, and management of lands along the St. Charles Parish ridge and adjacent to Bayou Segnette State Park. This mitigation is partially completed. The Bayou Segnette mitigation construction was awarded in September 2014 and was completed in 2018. St. Charles land acquisition was completed in December 2017 and construction complete in May 2021.
HSDRRS: HSDRRS Mitigation WBV JLNHPP Park/404c Hwy 45 Floodside BLH-Wet Restoration	Jefferson	2017	Mitigation for WBV HSDRRS project impacts to JLNHPP/Bayou aux Carpes 404c area to include approximately 6 acres of BLH-Wet restoration by filling a portion of a borrow pit in the northern part of Jean Lafitte National Park. The pit would be filled with clay and sand material trucked in from an offsite source, and native BLH-Wet species would be planted (Behrens 2019a; USACE2012g).
LWCPRA (BA-187): Grand Isle Bay Side Breakwaters	Jefferson	1995	The purpose of this project was to reduce erosion on the bay side of Grand Isle. Fifteen 300-foot breakwaters were constructed on the back-bay side of Grand Isle. This project included construction of segmented breakwaters on bay side of Grand Isle. [^]
LWCPRA (BA-200): North Grand Isle Breakwaters	Jefferson	1995	Approximately 1,500 linear feet of breakwater constructed on the south side of the Northern Grand Isle.
LWCPRA (PO-01): Violet Siphon Diversion	St. Bernard	1992	Enlarge the size of the diversion so that more sediment and freshwater are available to offset marsh subsidence and saltwater intrusion. [^]
LWCRPA (BA-03): Naomi Siphon Diversion	Jefferson; Plaquemines	1992	The Naomi Siphon diversion is located on the west bank of the Mississippi River near the communities of Naomi and LaReussite, Louisiana. The maximum flow capacity of the diversion is 2,100 cfs and is designed to divert freshwater, nutrients, and sediment from the Mississippi River into the adjacent wetlands near Naomi, Louisiana. ^{*^}
LWCRPA (BA-04): West Pointe a la Hache Siphon Diversion	Plaquemines	1992	The construction of siphon to divert water from the Mississippi River into the adjacent wetlands on the west side of the river near Pointe a la Hache, Louisiana at a maximum discharge of 2,100 cfs. [^]
LWCRPA (BA-05B): Queen Bess Island	Jefferson	1993	The purpose of this project is to restore Queen Bess Island as a brown pelican rookery. Dredged material was added to the island to increase its size in 1991, and a rock dike was installed around the perimeter of the original island in 1992 to armor the shoreline. The area has become vegetated and the number of

Program	Parish	Year Constructed	Project Description
			pelican nests on the island increased after the project.^
LWCRPA (BA-05C): Baie De Chactas	St. Charles	1990	Construction of a rock shoreline protection features between the northwest shoreline of Lake Salvador and Baie du Cabanage in order to reduce erosion, stabilize the shoreline, and inhibit shoreline breaching. *^
LWCRPA (BA-15-X1): Lake Salvador Shoreline Protection Extension	St. Charles	2005	The shoreline protection project included the construction of a rock dike along the northeastern shoreline of Lake Salvador tying into the BA-15 Phase II CWPPRA project and extending approximately 2 miles northeast. The project is designed to maintain the shoreline integrity and reduce interior marsh loss. *^
LWCRPA (BA-16): Bayou Segnette	Jefferson	1994; 1998/99	A shoreline protection feature along a narrow strip of spoil bank and marsh which separates the Bayou Segnette Waterway from Lake Salvador and a barrier across an abandoned canal that connects the two water bodies was constructed in 1994 to reduce wave induced erosion of marsh habitats within the JLNHPP. Maintenance of the structure occurred in 1998-1999. *^
LWCRPA (BA-25): Bayou Lafourche Freshwater Introduction	Lafourche	2011	The Mississippi River diversion into Bayou Lafourche will restore coastal marshes and provide drinking water to over 300,000 residents. This project funded the dredging of the first 6.2 miles of the bayou to accommodate a proposed increased flow of 1,000 cfs. ^
LWCRPA (BA-168): Grand Isle-Fifi Island Breakwaters	Jefferson	2015	The project will construct breakwaters along the southwestern portion of Fifi Island to reduce erosion on Fifi Island and the bay side of Grand Isle in order to protect commercial and residential infrastructure, wetlands, and fisheries. The project includes nourishment of 1,450 feet of existing breakwaters of an elevation of 8 feet and construction of 1,450 feet of new breakwaters to an elevation of 8 feet. ^
LWCRPA (BS-06): Lake Lery Hydrologic Restoration	St. Bernard	1997	The construction of a pumping station located along the south-central edge of the St. Bernard Parish Ridge. This will discharge collected rainfall into the marsh north of Lake Lery and help prevent saltwater intrusion. ^
LWCRPA (BS-0040) Bayou Terre Aux Boeufs Ridge	St. Bernard	2020	This project involves strategic armoring of 1the Central reach of the proposed Bayou Terre Aux Boeufs Ridge Restoration Project in St. Bernard Parish to address subsidence, sea level rise, and shoreline erosion, and provide natural protection for coastal areas by damping storm surge energy.**~

Program	Parish	Year Constructed	Project Description
LWCRPA (LA-01A): Dedicated Dredging Program – Lake Salvador	St. Charles	1999	The deposition of dredge material into two sites in open water areas of Baie du Cabanage within the Salvador Wildlife Management Area where narrow marsh strips exists between Lake Salvador and the bay. The project goal is the restoration of marsh habitat and the reduction of shoreline breaching into the adjacent Lake Salvador as part of the coastwide State Dedicated Dredging Program. *^
LWCRPA (LA-01B): Dedicated Dredging Program – Bayou Dupont	Jefferson	2000	The deposition of dredge material into three sites adjacent to Bayou Dupont and The Pen to nourish and/or rebuild threatened coastal marshes as part of the coastwide State Dedicated Dredging Program. ^
LWCRPA (LA-01C): Dedicated Dredging Program – Pass a Loutre	Plaquemines	2000	The project created approximately 26 acres of sustainable freshwater marsh in the vicinity of Pass a Loutre, Louisiana. This project is part of the coastwide state Dedicated Dredging Program. 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.^
LWCRPA (LA-01D): Terrebonne School Board Site - Dedicated Dredging	Terrebonne	2006	The creation of approximately 40 acres of marsh just north of Lake DeCade along the western back of Minors Canal as part of the Dedicated Dredging Program.^
LWCRPA (LA-01E): Grand Bayou Blue Site - Dedicated Dredging	Lafourche	2007	The creation of approximately 40 acres of marsh near Catfish Lake as part of the Dedicated Dredging Program.^
LWCRPA (LA-01F): Dedicated Dredging - Point au Fer	Terrebonne	2007	The creation of approximately 67 acres of marsh on Point au Fer Island as part of the Dedicated Dredging Program.^
LWCRPA (MR-01B): Small Sediment Diversions	Plaquemines	1993	The project involved the excavation of 13 crevasses through the levees of the Mississippi River distributary channels within the Balize Delta in order to create self-sustaining emergent marsh.^
LWCRPA (PO-01): Violet Siphon	St. Bernard	1992	Repair and enlargement of the existing siphon to allow increased flow of freshwater and nutrients into the surrounding marsh areas to enhance wetland vegetation growth and decrease salinity.^
LWCRPA (PO-02C): Bayou Chevee	Orleans	1994	This project installed 2,000 feet of brush fences at the mouth of Bayou Chevee.^
LWCRPA (PO-03): Labranche Shoreline Stabilization and Canal Closure	St. Charles	1987	The restoration of the integrity of the shoreline, which separates Lake Pontchartrain from the western edge of Labranche wetlands.^
LWCRPA (PO-03B): Labranche Shoreline Protection	St. Charles	1996	A rock breakwater was constructed along the Lake Pontchartrain shoreline, east of Bayou Labranche to inhibit breaching of the hydrologic boundary between the lake and the wetlands.^

Program	Parish	Year Constructed	Project Description
LWCRPA (PO-08): Central Wetlands Pump Outfall	St. Bernard	1992	This project was designed to provide freshwater, nutrients, and sediment associated with storm water runoff to an area of marsh near the Violet Siphon. ^
LWCRPA (PO-10): Turtle Cove Shore Protection	St. John the Baptist	1994	The project involved the construction of a rock-filled gabion breakwater to maintain and protect the Lake Pontchartrain shoreline that shelters "The Prairie" from high wave energies and to encourage sediment deposition behind the gabion structure. ^
LWCRPA (PO-72): Biloxi Marsh	St. Bernard	2014	This project involved the construction of approximately four miles of shoreline protection along the southeastern shoreline of Lake Borgne. ^
LWCRPA (PO-142): Hydrologic Restoration of the Amite River Diversion Canal	Livingston	2017	The purpose of this project was to reestablish hydrologic connectivity between the Maurepas Swamps and natural water bodies, plant vegetation in highly degraded swamp habitat. ^@~
LWCRPA (PO-161): Lake Pontchartrain Hurricane Mitigation	St John the Baptist	1996	This project consisted of a near-shore, segmented breakwater system in Lake Pontchartrain parallel to a five-mile reach of the Manchac Wildlife Management Area. The project specifically mitigated for damages resulting from construction of the Lake Pontchartrain Hurricane Protection project. ^
LWCPRA (PO-4355NP4): Fontainebleau State Park Mitigation	St. Tammany	1999	A mitigation project for impacts associated with the construction of park cabins along the northern Lake Pontchartrain shoreline east of Bayou Castine within the Fontainebleau State Park, St. Tammany Parish. The project involved the deposition of sand in the nearshore zone to supply sediment to close approximately 600 feet of breaches east of the Fontainebleau State Park cabins along the shoreline (USACE 2013).
LWCRPA (TE-01): Montegut Wetland	Terrebonne	1993	The objective of Montegut Wetland project was to protect and enhance degraded wetland habitat in the Pointe aux Chenes Wildlife Management Area southeast of Montegut, Louisiana. ^
LWCRPA (TE-02): Falgout Canal Wetland	Terrebonne	1993, 1995	The primary objectives of this project were to protect marsh and cypress-tupelo swamp, reduce saltwater intrusion, and improve wildlife habitat by moderating water flux and tidal energy in the deteriorating wetland community. ^
LWCRPA (TE-03): Bayou Lacache Wetland	Terrebonne	1991, 1996	The goal of the project was to minimize the effects of saltwater intrusion by increasing the retention of freshwater derived from local runoff and establish control over saltwater flow into the project area. ^
LWCRPA (TE-06): Pointe-aux-Chenes Hydrologic Restoration	Lafourche	2006	Restoration of brackish-intermediate marsh within the Pointe Aux Chenes Wildlife Management Area.^

Program	Parish	Year Constructed	Project Description
LWCRPA (TE-07B): Lower Petit Caillou	Terrebonne	1995, 2007	The objective of this project was 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. ^
LWCRPA (TE-14): Point Farm Refuge Planting	Terrebonne	1995	This project was developed to create bottomland hardwood forest in former Point Farm Refuge Area. ^
LWCRPA (TE-106): Raccoon Island Repair	Terrebonne	1994	This project was a cooperative effort that utilized dredged material and vegetation to repair storm damage to Raccoon Island.^
LWCRPA (TE-107): Spoilbank Along the GIWW	Terrebonne	1993	Trees planted along approximately 8,000 feet of the GIWW spoilbank in an effort to reduce further bank erosion. ^
LWCRPA (TV-02A): Hammock Lake	St. Mary	1990	The construction of 28 wave-dampening fences at Hammock Lake in an effort to reduce turbulence and resuspension of sediments by slowing currents and reducing wave action (Bahlinger 1994).
LWCRPA (TV-02B): Yellow Bayou	St. Mary	1992	The objectives of the project were to maintain the integrity of the interior marsh between Jackson Bayou and the British-American Canal and to stabilize the East Cote Blanche Bay shoreline. This was achieved by constructing an oyster shell berm adjacent to the water's edge to reduce shoreline erosion. ^
LWCRPA (TV-06): Marsh Island Control Structures	St. Mary	1993	The project objectives were to reduce the rate of land loss, re-vegetate shallow open-water areas, and increase waterfowl food within the water management units (^; CPRA 2017c).
LWCRPA (TV-72): Quintana Canal/Cypremort Point	St. Mary	1998	The project features rock breakwaters along the Vermilion Bay shoreline and foreshore rock dike along the Vermilion Bay/ Quintana Canal intersect and the south bank of the Quintana Canal. ^
National Park Service/USACE: Jean Lafitte National Historical Park & Preserve Beneficial Use Site	Jefferson	2011	The beneficial use of dredged material from Bayou Segnette Waterway and additional material from Algiers Canal associated with the construction of the West Closure Complex/HSDRSS were placed in the site bounded by the 1997 NPS wave break features on the west, existing marsh lands to the north and south, and the 1994 State of Louisiana BA-16 rock dike to the east. The project will provide improved shoreline stability (Minton, 2011).
National Park Service/USACE: Lake Salvador Shoreline Protection 1997 Shoreline Protection	Jefferson	1997	A shoreline protection barrier was built by the USACE under the authority of the National Parks and Recreation Act of November 10, 1978 (PL 95-625) to protect the Jean Lafitte National Historical Park and Preserve lands from wave induced erosion in an area of the central eastern Lake Salvador shoreline where potential breaching was possible between the Lake Salvador shoreline and the Bayou

Program	Parish	Year Constructed	Project Description
			Segnette Waterway. The wave break is approximately 8,000 feet long (USACE, 1995).
National Park Service/USACE: Lake Salvador Shoreline Protection 2005	Jefferson	2004-2005	Shoreline protection features were constructed by the USACE within the Jean Lafitte National Historical Park and Preserve along the northeastern Lake Salvador shoreline from the entrance of Bayou Bardeaux southeast along the Lake Salvador shoreline until it meets the National Park Service breakwater constructed in 1997. The goal of this project is to protect the JLNHPP lands and archaeological sites from wave induced erosion (USACE, 2004b).
National Park Service/USACE: Lake Salvador Shoreline Protection 2011	Jefferson	2011	Construction consisted of placement of rock on the floodside of the geocrib area and repairing existing rock dike on the Jean Lafitte National Historical Park and Preserve along the eastern Lake Salvador shoreline adjacent to the geocrib constructed in 1997. The feature is owned by NPS (O’Cain, 2012).
National Park Service: 2010 Jean Lafitte National Historical Park & Preserve Canal Partial Back Fillings	Jefferson	2010	Jean Lafitte National Historical Park & Preserve canals backfilled in 2010 to restore marsh integrity (Haigler, 2011).
National Park Service: 2002 Jean Lafitte National Historical Park & Preserve Canal Partial Back Fillings	Jefferson	2002	Jean Lafitte National Historical Park & Preserve canals backfilled in 2002 to restore marsh integrity (Haigler, 2011).
NFWF (BA-143): Caminada Headland Beach and Dune Restoration Increment 2	Jefferson; Lafourche	2016	This project restored and protected beach and dune habitat across the Caminada Headland through the direct placement of sandy material from Ship Shoal. The project footprint begins near Bayou Moreau and extends approximately 9 miles east towards Caminada Pass.^
NFWF (TE-0143): Terrebonne Basin Barrier Island	Terrebonne	2022	Creation and enhancement of beach, dune, and marsh habitat within the Terrebonne Basin barrier shoreline system.~ https://coastal.la.gov/news/terrebonne-basin-barrier-island-and-beach-nourishment/ and https://mailchi.mp/la.gov/terrebonne072122
NOAA (BA-186): Fisheries Habitat Restoration on West Grand Terre Island at Fort Livingston	Jefferson	2003	This project consists of a rock dike built to protect the Gulf shoreline of West Grand Terre Island and Fort Livingston. This project was expedited because erosion rates along West Grand Terre rapidly accelerated due to the impacts of tropical storms in 2002. ^
NOAA (TE-105): Brown Marsh	Lafourche	2002	Project features consisted of a thin layer marsh creation and nourishment covering 44 acres in Lafourche Parish. ^

Program	Parish	Year Constructed	Project Description
NRDA (BA-76 aka BA-142): Cheniere Ronquille Barrier Island Restoration	Plaquemines	2017	The project goal is to maintain shoreline integrity and create and restore saline marsh on Chenier Ronquille.^@~
NRDA (BA-111): Shell Island West - NRDA	Plaquemines	2017	This project aims to restore the integrity of the Shell Island West barrier island, reduce wave energies within the bay area, and reestablish productive habitat to Bastian Bay and the surrounding area. ^
NRDA (BA-141): Lake Hermitage Marsh Creation Increment 2	Plaquemines	2014	This project created 101 acres of marsh in conjunction with the BA-42 Lake Hermitage CWPPRA project. ^
NRDA DEEPWATER HORIZON (PR-0001): Middle River Pearl River Wildlife Management Area Boat Launch	St. Tammany	2021	Infrastructure and recreation improvements within the Middle River Pearl River WMA.~ Construction began in Mar 2021 and is anticipated for completion in Sept 2021%.
NRDA (TE-100): NRDA Caillou Lake Headlands	Terrebonne	2018	This project aims to restore the Whiskey Island Barrier Island in order to retain its geomorphologic form and ecologic function. It will create 170 acres of marsh habitat and 917 acres of dune and beach habitat. ^
RESTORE (BA-197): West Grand Terre Beach Nourishment and Stabilization	Jefferson	2022	The project involved the construction of beach and dune, restoration of back barrier marsh, and construction of a rock revetment to protect restored marsh. ^@ https://www.ecomagazine.com/news/coasts/cpra-announces-completion-of-west-grand-terre-restoration-project
SECTION 204/1135: Barataria Waterway/Grand Terre Island Phase 1 & 2	Jefferson	1996 P1; 2002 P2	This Section 204 project provided for the beneficial placement of approximately 500,000 cubic yards of material dredged from the Barataria Bay Waterway to create wetlands on Grand Terre Island.^
SECTION 204/1135: MRGO, Breton Island Berm Mile -2 to -3	Plaquemines	1999	This Section 204 project utilized material from maintenance dredging activities along the Mississippi River Gulf Outlet to nourish the littoral system that feeds Breton Island.^
SECTION 204/1135: MRGO, Breton Island Restoration Mile -2.3 to 4.0	Plaquemines	1999	This Section 204 project utilized material from maintenance dredging activities along the Mississippi River Gulf Outlet to repair Breton Island.^
Texaco Oil Spill Mitigation: Texaco Oil Discharge Mitigation 1991 (Netherlands Area)	St. Charles	1991	Mitigation for the 1991 Texaco oil well discharge into southwestern portion of Lake Salvador. The mitigation feature was constructed in the Netherlands area and consists of a timber pile/tire breakwater approximately 835 feet in length separating the Netherlands area from Lake Cataouatche. The objective of the project is to reduce erosion and enhance submerged aquatic vegetation habitat. The breakwater is anticipated to maintain existing conditions for 50 years (USDOI, 1991).
US Army Corps of Engineers: LPV Pre-Katrina Mitigation (Manchac Shoreline)	St. John the Baptist	1995	The project is located along the Lake Pontchartrain shoreline south of Pass Manchac near the southern border of the Manchac Wildlife Management Area (WMA) and consists of approximately 5 miles of segmented rock breakwater designed for wetland habitat protection in the WMA (USACE 2013).

Program	Parish	Year Constructed	Project Description
US Army Corps of Engineers: Davis Pond Freshwater Diversion Structure and Guide Levees	St. Charles	2002	The Structure is located on the west bank of the Mississippi River near Luling, Louisiana in St. Charles Parish. Approximately 19 miles of guide levees were also constructed to control the diverted freshwater, nutrients and sediments from the Mississippi River through the diversion structure into the Barataria Basin for the enhancement of the wetland habitat. The maximum flow capacity of the diversion is 10,650 cfs (USACE, 2000).
USACE (PO-93 and PO-94): MRGO O&M (Bayou Dupre Segment)	St. Bernard	1992	The project is located along the eastern bank of the MRGO in the vicinity of Bayous Bienvenue and Dupre. It consists of approximately 24,000 feet of rock breakwaters to provide wave reduction and protect the marshes behind the structure. Additional maintenance was performed on the structure in 2007/2008 to repair damages from Hurricane Katrina (USACE 2013).
USACE (PO-95): MRGO O&M 3rd and 4th Supplemental and MRGO O&M (MRGO East Bank Shoreline Protection in the Vicinity of Bayou Yscloskey)	St. Bernard	2008	The project is located along the eastern bank of the MRGO in the vicinity of MRGO river mile 39 to 44 near Bayou Yscloskey. The reach consists of approximately four miles of segmented foreshore rock dikes to reduce wave action and enhance protection to the marshes behind the structure (USACE 2013).
USACE (PO-152): MRGO O&M 3rd and 4th Supplemental (Doulluts Canal to Jahncke's Ditch)	St. Bernard	2008	This shoreline protection project is located along the southeastern shoreline of Lake Borgne between Doulluts Canal and Jahnckes Ditch. The design for this reach was funded and completed in 2005 by CWPPRA PO-29 project; however, the reach was funded and built with 3rd Supplemental funds (USACE 2013).
USACE: MRGO O&M (MRGO West Bank Shoreline Protection in the vicinity of Stump Bayou)	St. Bernard	Late 1990s	The project is located along the western bank of the MRGO in the vicinity of Stump Bayou. It consists of approximately 3,000 feet of rock breakwaters to provide wave reduction and enhance protection to the marshes behind the structure (USACE 2013).
USACE: MRGO O&M 3rd and 4th Supplemental (West of Shell Beach Shoreline Protection)	St. Bernard	2008	A rock shoreline protection feature is to be constructed along the Lake Borgne shoreline south of Proctor Point in the vicinity of Shell Beach to provide protection to the adjacent marshlands. Also, marsh creation will be implemented at specific locations behind the shoreline protection features (USACE 2013).
WRDA (BA-01): Davis Pond Freshwater Diversion and Forced Drainage Area	Jefferson; Lafourche; Plaquemines; St. Charles	2002	The management of the diverted freshwater, nutrients and sediment from the Mississippi River through the Davis Pond freshwater diversion structure into the surrounding marsh areas to maintain and enhance the ecosystem of the Barataria Basin. *^

Program	Parish	Year Constructed	Project Description
WRDA (BS-08): Caernarvon Freshwater Diversion	Plaquemines; St. Bernard	1991	This project diverts freshwater and its accompanying nutrients and sediment from the Mississippi River into coastal bays and marshes in Breton Sound for fish and wildlife enhancement. ^
WRDA (BA-191): Spanish Pass Ridge and Marsh Restoration	Plaquemines	2018	Construction of approximately 1 mile of ridge backed by a marsh platform that would serve as a means to reduce wave energy on the leeward side of the marsh through the use of dredge material. This project is part of the Louisiana Coastal Area, Beneficial Use of Dredged Material Program was completed in 2018. ^@ ~ This project is part of State Master Plan 2017: 002.RC.02 Spanish Pass Ridge Restoration.

(~Data source is CPRA 2022, **Data source is CPRA 2020 ^Data source is CPRA 2018; @Data source is CPRA 2017a; # Data source is CPRA 2017b; &Data source is CPRA 2017c; *Data source is CPRA 2012; +Data source is CPRA 2010)

~CPRA 2020. CPRA Fiscal Year 2022 Annual Plan: Integrated Ecosystem Restoration and Hurricane Protection in Coastal Louisiana. Including Appendix A-Ongoing Protection and Restoration Project Summaries.

**CPRA 2020 Plaquemines Parish Coastal Projects

https://cims.coastal.louisiana.gov/outreach/factsheets/Parishes/parish_factsheet?parish=Plaquemines

Table 17. Reasonably Foreseeable Wetland or Ecosystem Restoration Projects in the Deltaic Plain

Program	Parish	Description
CWPPRA (BA-0171): Caminada Headlands Back Barrier Marsh Creation	Lafourche	The use of Mississippi River dredged sediment to create and nourish intermediate marsh adjacent to Bayou Dupont. ~ Construction began in Nov 2019 and is anticipated for completion in Dec 21
CWPPRA (PO-0075): LaBranche East Marsh Creation	St. Charles	The use of dredge material from Lake Pontchartrain to create and nourish the LaBranche marsh between Lake Pontchartrain and I-10. ~ Construction began in Dec 2021 and is anticipated for completion Sept 23.
CWPPRA (PO-0133): LaBranche Central Marsh Creation	St. Charles	The use of dredge material from Lake Pontchartrain to create and nourish the LaBranche marsh between Lake Pontchartrain and I-10. ~ Construction began in Dec 2021 and is anticipated for completion in Sept 23.
CWPPRA (PO-0169): New Orleans Landbridge Shoreline Stabilization and Marsh Creation	Orleans	The enhancement of shoreline along US-90 and creation and nourishment of marsh in the Orleans Landbridge area. ~ Construction began in Apr 2021 and is anticipated for completion in Sept 22.
CWPPRA (TE-0138): Bayou DeCade and Marsh Creation	Terrebonne	Restoration of the Bayou DeCade northern ridge, including the creation and nourishment of marsh adjacent to Lake DeCade. ~ Construction began in Jun 2020 and is anticipated for completion in Mar 22.
DEEPWATER HORIZON NRDA (AT-0020): Atchafalaya Delta WMA Campground Improvements	St. Mary	Enhance recreation access and nourishment of wetlands in the AtchafalayaDelta WMA. ~ Construction began in Mar 2020 and is anticipated for completion in Jun 2021.
DEEPWATER HORIZON NRDA (BA-0197): West Grand Terre Beach Nourishment	Jefferson	The creation and restoration of beach, dune, and marsh habitat on the West Grand Terre Island. ~ Construction began in Dec 2019 and is anticipated for completion in Nov 2021.
DEEPWATER HORIZON NRDA (BA-0203): Barataria Basin Ridge and Marsh Creation - Spanish Pass Increment	Plaquemines	The restoration of ridge and marsh habitat along Spanish Pass using dredged sediment. ~ Construction began in Oct 2020 and is anticipated for completion in Mar 2023.
DEEPWATER HORIZON NRDA (BA-0207): Large-Scale Barataria Marsh Creation	Jefferson	Creation of marsh near the south shore of The Pen, Louisiana. ~ Construction began in May 2021 and is anticipated for completion in Sept 2023
DEEPWATER HORIZON NRDA (BA-0213): Bayou Segnette State Park Improvements	Jefferson	Infrastructure improvements in Bayou Segnette State Park. ~ Construction began in Oct 2020 and is anticipated for completion in Mar 2022.
DEEPWATER HORIZON NRDA (BA-0214): Grand	Jefferson	Infrastructure improvements and recreation improvements to Grand Isle State Park. ~ Construction began in Aug 2019 and is anticipated for completion in Dec 2022.

Program	Parish	Description
Isle State Park Improvements		
DEEPWATER HORIZON NRDA (BA-0240): Grande Cheniere Ridge Marsh Creation	Plaquemines	Marsh creation and nourishment in the Bayou Grande Cheniere Ridge area. ~ Construction began in Jul 2021 and is anticipated for completion in Mar 2024.
DEEPWATER HORIZON NRDA (PO-0163): Golden Triangle Marsh Creation	Orleans	Marsh creation within the Golden Triangle Marsh. ~ Construction began in Feb 2021 and is anticipated for completion in Mar 2023.
DEEPWATER HORIZON NRDA (PO-0174): Biloxi Marsh Living Shoreline Project	St. Bernard	Construction of breakwater off the shoreline of Eloi Bay and Eloi Point. ~ Construction began in Apr 2021 and is anticipated for completion in Jan 2024.
DEEPWATER HORIZON NRDA (PO-0180): Lake Borgne Marsh Creation - Increment One	St. Bernard	Marsh creation along the southern rim of Lake Borge. ~ Construction began in Mar 2021 and is anticipated for completion in Sept 2024.
DEEPWATER HORIZON NRDA (TE-0139): Terrebonne Basin Ridge and Marsh Creation - Bayou Terrebonne Increment	Terrebonne	Ridge and marsh creation in an area along the east bank of Bayou Terrebonne.~ Construction began in Dec 2021 and is anticipated for completion in Dec 2024.
DEEPWATER HORIZON NRDA (TE-0146): Pointe-aux-Chenes WMA Enhancement	Terrebonne and Plaquemines	Recreational enhancements within Pointe aux Chenes WMA. ~ Construction began in Sept 2020 and is anticipated for completion in Jul 2021.
DEEPWATER HORIZON NRDA (TV-0081): Cypremort Point State Park Improvements	St. Mary and Iberia	Infrastructure improvements to enhance recreational and educational opportunities within the Cypremort Point State Park.~ Construction began in Oct 2020 and is anticipated for completion in Jul 2022.
GOMESA (BA-0219): Davis Pond Upper Barataria Risk Reduction	Jefferson and St. Charles	Davis Pond Diversion West Guide levee improvements. ~ Construction began in Nov 2021 and is anticipated for completion in Feb 2023.
GOMESA (BA-0221): Pumping Capacity Improvements Phase I	Ascension	Pump station construction on Mississippi River at Donaldsonville.~ Construction began in Aug 2021 and is anticipated for completion in Jul 2024.
GOMESA (BA-0231): Storm Surge Risk Reduction for Reach E-North	Lafourche	Levee modifications and improvements to the Larose to Golden Meadow Hurricane Protection System.~ Construction began in Apr 2020 and is anticipated for completion in Jun 2022.

Program	Parish	Description
GOMESA (BA-0246): Section D Storm Surge and Risk Reduction	Lafourche	~ Construction began in Mar 2021 and is anticipated for completion in Jan 2022.
GOMESA (BA-0247): Section D South Floodwall	Lafourche	~ Construction began in Dec 2020 and is anticipated for completion in Nov 2021.
GOMESA (TE-0147): Hollywood Canal Closure Structure	Lafourche	Construction of a closure structure in Hollywood Canal for flood risk reduction.~ Construction began in Aug 2021 and is anticipated for completion in Feb 2023.
GOMESA (TE-0159): Elliot Jones Pump Station	Terrebonne	Flood damage risk reduction measures to benefit the community of Gibson.~ Construction began in May 2021 and is anticipated for completion in Aug 2022.
HSDRRS (BA-158): New Orleans to Venice Mitigation - Plaquemines Non-Federal	Plaquemines	This project will provide BLH wet/dry, swamp, freshwater marsh, and brackish marsh habitat restoration as part of environmental mitigation for impacts incurred as a result of the construction of New Orleans to Venice Mitigation - Plaquemines Non-Federal levee components'. It is being led by USACE and is 100% federally funded.^ If the remaining components are selected for construction, construction is anticipated to begin in 2023 with anticipated completion by 2025 (11/8/22 LIR slides).
HSDRRS (BA-159): New Orleans to Venice Mitigation - Federal	Plaquemines	This project will provide BLH wet/dry, intermediate marsh, freshwater marsh, brackish marsh, and saline marsh habitat as part of environmental mitigation for impacts incurred as a result of the construction of New Orleans to Venice Mitigation - Federal. It is being led by USACE and is 100% federally funded.^ If the remaining components are selected for construction, construction is anticipated to begin in 2023 with anticipated completion by 2025 (11/8/22 LIR slides).
HSDRRS Mitigation LPV Bayou Sauvage Floodside Brackish Marsh	Orleans	This alternative consists of 283 acres of brackish marsh restoration that would be achieved by placing dredged material in open water to elevations conducive for wetland development. Features also include the temporary placement of sheet pile along Irish Bayou to contain dredged material. Construction was completed June 2020. (Erwin 2018b, USACE 2012c).
HSDRRS Mitigation LPV Turtle Bayou Protected Side Intermediate Marsh	Orleans	This alternative involved restoration of approximately 129-acres of intermediate marsh platform in an area of primarily shallow open water using dredged material from a designated borrow site. Construction was completed August 2019. (Erwin 2018b, USACE 2012b).
HSDRRS Mitigation LPV New Zydeco Ridge Protected Side Bottomland Hardwood Wet and Floodside Brackish Marsh	St. Tammany	The New Zydeco Ridge (NZR) restoration is located on the north shore of Lake Pontchartrain in the north east quadrant of the lake, northwest of U.S. Highway 90, and approximately 5 miles east of Slidell, Louisiana on the Big Branch National Wildlife Refuge. The approved NZR projects in SIER 1 consisted of creating approximately 159 acres of BLH-Wet habitat and 160 acres of intermediate/brackish marsh habitat. Design 1 expands the current design of the NZR Brackish Marsh restoration project by approximately 60 acres, making the total acreage for that project approximately 220 acres; it moves the approved NZR BLH-Wet footprint northward. Design 2 maintains the alignment of the NZR BLH-Wet and Brackish Marsh layouts approved in SIER 1 and adds a 60 acre brackish marsh cell to the north of the BLH-Wet footprint. Construction began in November 2016 and was completed in June 2020 (7/12/22 LIR slides).
HSDRRS Mitigation WBV JLNHPP Park Yankee Pond and Geocrib Floodside Fresh Marsh Restoration	Jefferson	Approximately 106 acres of fresh marsh was restored by filling Yankee Pond with material dredged from Lake Cataouatche. A rock dike with fish dips was constructed on the eastern perimeter to separate the marsh from Bayou Segnette. Additionally, approximately 50 acres of marsh would be restored by grading an existing dredge material disposal site to achieve target marsh elevations and completing a rock dike with fish dips adjacent to Lake Salvador. This project assumes natural recruitment and no planting would be required at either site to establish marsh vegetation. Construction was completed in 2019 (Behrens 2019b).
HSDRRS Mitigation WBV Avondale Protected Side BLH-Dry Restoration		Approximately 920 acres of predominantly invasive and nuisance species would be eradicated and the area planted with native, high quality tree and shrub species. This project would involve enhancing an existing degraded BLH habitat as mitigation for general protected side BLH-Dry impacts incurred through construction of HSDRSS WBV (USACE 2016b). Construction began in 2017 and was completed in 2019 (7/12/22 LIR slides).
HSDRRS Previously Authorized Mitigation WBV	Jefferson; St. Charles	Mitigation for Pre-Katrina West Bank and Vicinity Hurricane Protection project impacts by land acquisition, preservation, and management of lands along the St. Charles Parish ridge and adjacent to Bayou Segnette State Park. This mitigation is partially completed. The Bayou Segnette mitigation construction was awarded in September 2014 and was completed in 2018. St. Charles land acquisition was completed in December 2017 and iconstruction completed in March 2021 (8/9/22 LIR slides).

Program	Parish	Description
LWCPRA (BA-0075-2): Rosethorne Tidal Protection	Jefferson	Enhancement to the flood risk reduction system in Rosethorne.~ Construction began in Jan 2021 and is anticipated for completion in Feb 2023
LWCPRA (MR-0172): South Pass Bird Island Enhancement	Plaquemines	Marsh creation in South Pass for the enhancement of bird habitat.~ Construction began in Aug 2021 and is anticipated for completion in Nov 2021.
LWCPRA (TV-0077): North Vermilion Bay Shoreline Protection	Vermilion	Shoreline protection along the northern rim of Vermilion Bay in Boston Canal.~ Construction began in Sept 2021 and is anticipated for completion in Nov 2022.
LWCPRA (TV-0082): Freshwater Bayou Shoreline Protection	Vermilion	Construction of a rock dike to reduce bank and interior marsh erosion along the eastern bank of Freshwater Bayou.~ Construction began in Oct 2021 and is anticipated for completion in Jan 2023.
RESTORE (BS-0034): Lake Lery Marsh Creation (Phase 2)	St. Bernard	Creation and nourishment of marsh near Lake Lery.~ Construction began in Mar 2020 and is anticipated for completion in Jun 2022.
RESTORE (PO-0029): River Reintroduction into Maurepas Swamp	Ascension, St. James, St. John the Baptist, and Livingston	River diversion into Maurepas Swamp to enhance and restore swamp.~ Construction began in Mar 2022 and is anticipated for completion in Jun 2025*.
RESTORE (PO-0183): Manchac Landbridge (Rock Breakwater) Shoreline Protection	Tangipahoa	Construction of rock breakwater to protect the Manchac Landbridge.~ Construction began in Oct 2021 and is anticipated for completion in Dec 2022.
RESTORE (TV-0079): Freshwater Bayou Canal Shoreline Protection+33:44C3434:4432:44C3434:4431:44C3434:4430:44C3434:4429:4430:4431:4432:4433:44	Vermilion	Shoreline Protection along Freshwater Bayou Canal.~ Construction began in Mar 2022 and is anticipated for completion in May 2023.

(~Data source is CPRA 2021, ^Data source is CPRA 2018; @Data source is CPRA 2017a; #Data source is CPRA 2017d)

~CPRA 2020. CPRA Fiscal Year 2022 Annual Plan: Integrated Ecosystem Restoration and Hurricane Protection in Coastal Louisiana. Including Appendix A-Ongoing Protection and Restoration Project Summaries.

Table 18. Additional Authorized Projects in the Deltaic Plain

Program	Parish	Description
Louisiana DOTD/FHWA: Future I-49 South, Raceland to the Westbank Expressway (700-92-0011) and Morgan City to Raceland	St. Charles; Lafourche; Terrbonne	Proposed construction of an elevated extension to US Interstate 49 South along the US 90 corridor from the Louisiana Highway 1 interchange in Raceland, Louisiana to the Westbank Expressway near Ames Boulevard in Marrero, Louisiana. The project also includes the connection of the southern terminus of US Interstate 310 with US Interstate 49. The Record of Decision for the project was signed in January 2008. The Morgan City to Raceland project has been completed, but the Raceland to the Westbank Expressway is not yet complete. (USDOT, 2008; I49 International Coalition, 2018) http://www.interstate49.org/index.php?page=louisiana
US Department of Justice: St Charles Levee Conservation Easement	St. Charles	St Charles Levee Conservation Easement was authorized and created in 1999 by the U.S. Department of Justice as a conservation area resulting from a federal settlement with Rathborne Land Company to resolve allegations of unpermitted development of wetlands (Scallan, 2010).

Table 19. Representative Fishes for Maurepas Swamp Project Area

Common Name	Scientific Name
skipjack herring	<i>Alosa chrysochloris</i>
black bullhead	<i>Ameiurus melas</i>
bowfin	<i>Amia calva</i>
american eel	<i>Anguilla rostrata</i>
freshwater drum	<i>Aplodinotus grunniens</i>
gulf menhaden	<i>Brevoortia patronus</i>
common carp	<i>Cyprinus carpio</i>
american gizzard shad	<i>Dorosoma cepedianum</i>
threadfin shad	<i>Dorosaoma petenense</i>
ladyfish	<i>Elops saurus</i>
fgolden topminnow	<i>Fundulus chrysotus</i>
blue catfish	<i>Ictalurus furcatus</i>
channel catfish	<i>Ictalurus punctatus</i>
bigmouth buffalo	<i>Ictiobus cyprinellus</i>
spotted gar	<i>Lepisosteus oculatus</i>
longnose gar	<i>Lepisosteus osseus</i>
warmouth	<i>Lepomis gulosus</i>
orangespotted sunfish	<i>Lepomis humilis</i>
bluegill	<i>Lepomis macrochirus</i>
longear sunfish	<i>Lepomis megalotis</i>
redeer sunfish	<i>Lepomis microlophus</i>
spotted bass	<i>Micropterus punctulatus</i>
largemouth bass	<i>Micropterus salmoides</i>
yellow bass	<i>Morone mississippiensis</i>
striped mullet	<i>Mugil cephalus</i>
black crappie	<i>Pomoxis nigromaculatus</i>
white crappie	<i>Pomoxis annularis</i>
blacktail shiner	<i>Cyprinella venusta</i>
western mosquitofish	<i>Gubusia affinis</i>
sailfin molly	<i>Poecillia latipinna</i>