

APPENDIX A: TABLES

Table A1: 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 and Other Protected 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 LADNR 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.
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 (Visual)	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.	Direct public input on visual resources is not feasible for projects of this scope and scale. Public preference will be determined based on public response to this project

Resource	Institutionally Important	Technically Important	Publicly Important
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 A2: T&E Species Occurring in Jefferson Parish

Common Name	Scientific Name	Occurrence	Group	Status
West Indian Manatee	<i>Trichechus manatus</i>	Seasonal	Mammal	T
Piping Plover	<i>Charadrius melodus</i>	Known	Bird	T, CH
Rufa Red Knot	<i>Calidris canutus</i>	Seasonal	Bird	T
Gulf Sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Known	Fish	T, CH
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	Known	Fish	E
Green Sea Turtle	<i>Chelonia mydas</i>	Known	Reptile	T
Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	Known	Reptile	E
Kemp's Ridley Sea Turtle	<i>Lepidochelys kempii</i>	Known	Reptile	E
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	Known	Reptile	E
Loggerhead Sea Turtle	<i>Caretta caretta</i>	Known	Reptile	T

* <https://www.fws.gov/southeast/pdf/fact-sheet/louisiana-ecological-services-field-office-t-and-e-species.pdf> (accessed March 19, 2019)

T = Threatened; E = Endangered; CH = Critical habitat (includes those areas occupied by the species)

Table A3: Primary and Secondary NAAQS for the Seven Contaminants Established by EPA

National Ambient Air Quality Standards [3][4]				
	Primary Standard		Secondary Standard	
Criteria Pollutant	Concentration Limit	Averaging Time	Concentration Limit	Averaging Time
Carbon monoxide	9 ppmv (10 mg/m³)	8-hour ⁽¹⁾	None	
	35 ppmv (40 mg/m³)	1-hour ⁽¹⁾		
Sulfur dioxide	0.03 ppmv (80 µg/m³)	Annual (arithmetic mean)	0.5 ppmv (1300 µg/m³)	3-hour ⁽¹⁾
	0.14 ppmv (365 µg/m³)	24-hour ⁽¹⁾		
Nitrogen dioxide	0.053 ppmv (100 µg/m³)	Annual (arithmetic mean)	Same as primary	
Ozone	0.075 ppmv (150 µg/m³)	8-hour ⁽²⁾	Same as primary	
	0.12 ppmv (235 µg/m³)	1-hour ⁽³⁾	Same as primary	
Lead	0.15 µg/m³	Rolling 3-month average	Same as primary	
	1.5 µg/m³	Quarterly average	Same as primary	
Particulate Matter (PM ₁₀)	150 µg/m³	24-hour ⁽⁴⁾	Same as primary	
Particulate Matter (PM _{2.5})	15 µg/m³	Annual ⁽⁵⁾ (arithmetic mean)	Same as primary	
	35 µg/m³	24-hour ⁽⁶⁾	Same as primary	

(1) Not to be exceeded more than once per year.

(2) The 3-year average of the fourth-highest daily maximum 8-hour average at each monitor within the area over each year must not exceed 0.075 ppmv.

(3a) The expected number of days per calendar year with maximum hourly averages above 0.12 ppm must be equal to or less than 1.

(3b) As of June 15, 2007, the U.S. EPA revoked the 1-hour ozone standard in all areas except for certain parts of 10 states.

(4) Not to be exceeded more than once per year on average over 3 years.

(5) The 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15 µg/m³.

(6) The 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within the area must not exceed 35.5 µg/m³.

Table A4: EFH and Highly Migratory Species in the Project Area

Common Name	Scientific Name	Life Stage	EFH
Red drum	<i>Sciaenops ocellatus</i>	Larvae/Post Larvae	All estuaries planktonic, estuarine Submerged Aquatic Vegetation (SAV), estuarine sand/shell/mud/soft bottom, emergent marsh
		Adult	Gulf of Mexico & estuarine sand/shell/mud/soft bottoms, oyster reef, estuarine SAV, 35-180 m
Brown shrimp	<i>Crangon crangon</i>	Larvae/Post Larvae	Planktonic, estuarine sand/shell/soft bottom, SAV, emergent marsh, oyster reef, 0-82 m
		Adult	Gulf of Mexico <110 m, silt sand, muddy sand
White shrimp	<i>Litopenaeus setiferus</i>	Juvenile	Marsh edge, SAV, marsh ponds, inner marsh, oyster reef
		Adult	Gulf of Mexico <33 m, silt, soft mud
Reef Fish			
Vermillion snapper	<i>Rhomboplites aurorubens</i>	Juvenile	Nearshore hardbottom
Lane snapper	<i>Lutjanus synagris</i>	Larvae/Post Larvae	Nearshore SAV, planktonic 4-132 m
		Juvenile	Nearshore SAV, sand/shell/mud/soft bottom, banks/shoals, mangrove 4-132 m.
		Adult	Nearshore SAV, sand/shell/mud/soft bottom, banks/shoals 4-132 m
Gray snapper	<i>Lutjanus griseus</i>	Adult	Nearshore SAV, nearshore hardbottom/banks/shoals, estuarine mud/soft/sand/shell bottom, estuarine emergent marsh, 0-180 m
Almaco jack	<i>Seriola rivoliana</i>	Juvenile	Nearshore algae (Sargassum)
Red snapper	<i>Lutjanus campechanus</i>	Larvae	Nearshore pelagic,
		Juvenile	Nearshore hard/mud/soft bottom
		Adult	Nearshore sand/shell bottom
Gray triggerfish	<i>Balistes capriscus</i>	Larvae/Post Larvae	Nearshore algae (Sargassum)
		Juvenile	Nearshore algae (Sargassum), mangrove
		Adult	Nearshore sand/shell bottom
Coastal Migratory Pelagics			
King mackerel	<i>Scomberomorus cavalla</i>	Juvenile	Nearshore pelagic
Cobia	<i>Rachycentron canadum</i>	Eggs/Post Larvae/Juvenile/Adult	Nearshore pelagic
Greater amberjack	<i>Seriola dumerili</i>	Juvenile	Nearshore algae (Sargassum)
		Adult	Nearshore pelagic
Gulf stone crab	<i>Menippe adina</i>	Eggs	Banks/shoals 1 - 97.5 m

		Larvae/Post Larvae	Sand/shell and soft bottoms 40 m
		Juveniles	Pelagic 40 m
		Adults	Oyster reefs, sand/shell/soft bottoms 40 m
Common Name	Scientific Name	Life Stage	EFH
Scalloped Hammerhead Shark	<i>Sphyrna lewini</i>	Neonate	Galveston Bay; Vermillion Bay to West Bay; All nearshore waters to > 54 m
		Juvenile	West Galveston Bay; nearshore off Galveston Island
Blacktip Shark	<i>Carcharhinus limbatus</i>	Neonate & Juvenile	Estuarine waters of Galveston, Terrebonne and Timbalier Bays; all nearshore and offshore waters
		Adult	Estuarine waters of Vermilion, Atchafalaya, Terrebonne and Timbalier Bays; all nearshore and offshore waters
Finetooth Shark	<i>Carcharhinus isodon</i>	Neonate	Lower Galveston Bay, West Bay and nearshore waters off Galveston Island and Boliver Peninsula; Timbalier Bay and waters offshore Timbalier islands
		Juvenile & Adult	Estuarine and nearshore waters E of Terrebonne Bay
Spinner Shark	<i>Carcharhinus brevipinna</i>	Neonate	Galveston Bay (including East, West and Trinity Bays) and nearshore waters off Brazoria, Galveston, and Chambers Counties; Terrebonne Bay and estuarine and nearshore waters to Grand Isle
		Juvenile	Galveston Bay (including East, West and Trinity Bays) all nearshore waters (ex. off mouth of Mermentau River and between Vermillion and Atchafalaya Bays); Terrebonne and Barataria Bays and the Mississippi birdfoot delta
Atlantic Sharpnose Shark	<i>Rhizoprionodon terraenovae</i>	Neonate	All nearshore and offshore waters Freeport to the mouth of the Mississippi, Christmas Bay, Galveston Bay (incl. West, Trinity and East Bays), Vermillion, West Cote Blance, Atchafalaya, lower Terrebonne and Timbalier Bays and Barataria Bay
		Juvenile	All nearshore and offshore waters Freeport to the mouth of the Mississippi, Christmas Bay, West Bay, lower Terrebonne and Timbalier Bays
		Adult	All nearshore and offshore waters Freeport to the mouth of the Mississippi, Christmas Bay, Galveston Bay (incl. West, Trinity and East Bays), lower Terrebonne and Timbalier Bays and Barataria Bay
Blacknose Shark	<i>Carcharhinus acronotus</i>	Neonate and Juvenile	Estuarine and nearshore waters of Brazoria and Galveston Counties
Bonnethead Shark	<i>Sphyrna tiburo</i>	Neonate and Juvenile	Estuarine and nearshore waters of Brazoria and Galveston Counties