	PROJECT_ID	PROPOSAL_DATE	LastUpdatedDate	PROJECT_NAME
Workforce, Research, & Education	24	10/21/2013	3/31/2022	Monitoring Population Ecology of a Critical Coastal Bioindicator, the Mississippi Diamondback Terrapin (Malaclemys terrapin pileata)
Workforce, Research, & Education	25	10/21/2013	3/31/2022	Enhancement of IMMS Public Outreach and Education Programs

Workforce, Research, & Education	1149	2/2/2015	1/27/2022	Oyster Bayou Restoration at Beauvoir
Workforce, Research, & Education	1157	9/26/2011	1/24/2022	Bayou Auguste Environmental Enhancement and Wetlands Project
Workforce, Research, & Education	1233	9/7/2011	3/31/2022	Enhance Aquatic Habitat around Existing Piers

Workforce, Research, & Education	1246	9/26/2011	3/16/2022	Sediment and Tar Ball Transport Study
Workforce, Research, & Education	1269	2/25/2022	2/25/2022	Ecological Restoration Genetics of Slash Pine on the Barrier Islands and Coastal Wetlands

Workforce, Research, & Education	1273	12/9/2013	3/7/2022	Adaptive Sports Program/ Master Naturalist j
Workforce, Research, & Education	1589	8/2/2011	3/4/2022	Maritime & Seafood Industry Museum Expansion with Restoration Initiatives

	1626	10/24/2012	11/13/2020	A Gulf-wide multi-year research project to determine best practices for minimizing barotrauma effects on red snapper following capture and release
	1653	8/7/2013	3/31/2022	Eco-tourism-Enhancement of IMMS Public Outreach and Education Programs

	1665	1/20/2014	3/2/2022	Northern Gulfport Sewer Expansion
	1666	1/20/2014	3/2/2022	Three Rivers Road Widening
	1671	1/20/2014	3/2/2022	Canal Rd/28th Street Elevated Tank and Water Main
	1676	1/20/2014	3/2/2022	MS 605/Lorraine Road St Lighting at Seaway Island

	1677	1/20/2014	3/2/2022	Gulfport - Sportsplex Expansion
	1678	1/21/2014	3/2/2022	O'Neal Road Widening

	1733	2/10/2014	3/2/2022	Gulfport Urban Estuaries Enhancement
	1799	4/4/2014	3/31/2022	Multifaceted evaluation of living shorelines in the Mississippi Sound

	1800	4/4/2014	3/31/2022	A comprehensive approach for the restoration and recovery of essential prey items for Kemp"™s Ridley sea turtles (Lepidochelys kempii) in the Mississippi Sound
	1810	4/14/2014	3/31/2022	Long-term restoration, recovery, and monitoring of marine mammals and sea turtles in the north central Gulf of Mexico

	1863	3/1/2022	3/29/2022	Diamondhead Ecosystem Restoration, Stabilization & Sustainability Project - Living Shoreline Protection & Marsh Restoration
	1864	3/1/2022	3/29/2022	Diamondhead Ecosystem Restoration, Stabilization and Sustainability Project - Water Quality Restoration Enchancement Project
	1865	3/1/2022	3/29/2022	Nature Trail and Bird Sanctuary on Southside by Jourdan River
	1866	3/1/2022	3/29/2022	Nature Education Center
	2134	10/1/2014	1/24/2022	I-110 Corridor Restoration & Enhancement

	2135	10/1/2014	1/24/2022	Biloxi Peninsula Shoreline Stabilization and Public Access Improvements
	2161	6/1/2015	1/20/2022	Mercury Methylation Rates, Isotopic Composition, and Trophic Transfer in the Northern Gulf of Mexico

	3225	6/1/2015	1/19/2022	Development of the MississippiSound environmental education program at the Mississippi State University Crosby Arboretum, through the MSU-ES, to foster coastal community resilience

	4264	12/19/2014	3/2/2022	Mississippi Aquarium

	4282	1/2/2015	3/31/2022	Classrooms and dormitories for the Center for Marine Education & Research (CMER) in Mississippi.
	4343	7/24/2015	3/16/2022	West Jackson County Constructed Wetlands Restoration Project

	5401	9/2/2015	6/13/2019	Point Cadet Sunrise Park: Biloxi Tip of Peninsula Public Access and Shoreline Stabilization Improvement Project

	5460	12/24/2015	2/2/2022	National Diabetes and Obesity Research Institute
	5555	2/1/2022	1/19/2022	Sewer Infrastructure Rehab Project

	5558	5/16/2017	3/16/2022	Old Fort Bayou Road at I-10 Interchange
	5559	5/16/2017	3/16/2022	McCann Road Overpass

	5560	5/16/2017	3/16/2022	Pascagoula River Scenic Trail
	5562	3/1/2022	1/19/2022	Master Sewer System Study

	5647	7/14/2017	3/23/2022	Informing restoration efforts in the Mississippi Sound: Quantifying Gulf Sturgeon winter foraging habitat occupancy and coastal pelagic finfish habitat use with passive acoustic technology

	5688	7/28/2017	1/21/2022	Restoration of Gulf of Mexico pelagic and broad scale fisheries: addressing movement ecology data needs
	5710	8/1/2017	4/30/2020	Sea turtle entanglement reduction through the prevention and removal of recreational fishery-based marine debris
	5760	1/24/2018	1/24/2018	Understanding the cause of spontaneous abortions in cetaceans after DWH

	5763	2/19/2018	2/19/2018	Unmanned Maritime Systems Technology Program
	5765	2/25/2018	2/25/2018	Mississippi Oyster Shell Recycling Program

	5766	2/25/2018	2/25/2018	Reef Fish Community Permit/ Quota Bank
	5767	2/25/2018	2/25/2018	Seafood Traceability and Tagging Program
	5768	2/25/2018	2/25/2018	Off-Bottom Oyster Aquaculture Advancement & Investment Program
	5769	2/25/2018	2/25/2018	Sea Turtle Conservation and Shrimp Trawl Vessel Electronic Monitoring Program

	5771	2/25/2018	2/25/2018	Shrimp Industry Task Force (Advisory Panel)
	5772	2/25/2018	2/25/2018	Fin-fish Industry Task Force (Advisory Panel)
	5773	2/25/2018	2/25/2018	Oyster Industry Task Force (Advisory Panel)
	5774	2/25/2018	2/25/2018	Marine Debris and Derelict Trap Removal Incentive Program
	5776	3/6/2018	3/6/2018	Bay St. Louis Municipal Amphitheatre

	5777	4/10/2018	3/29/2019	Sustain American shrimp processing industry with strategic investments
	5779	4/16/2018	4/16/2018	Marketing Mississippi Seafood
	5780	5/21/2018	5/21/2018	Ocean Springs High School Aquaculture Expansion

	5788	7/11/2018	7/11/2018	Cedar Lake Island Land Protection
	5790	7/11/2018	7/11/2018	Tchoutacabouffa River Land Protection

	5795	7/20/2018	7/20/2018	Urban Natural Resource Job Training
	5796	8/6/2018	8/6/2018	Phase 2 Land Acquisition for expansion of Grand Bay National Wildlife Refuge and National Estuarine Research Reserve

	5798	8/6/2018	8/6/2018	Connecting and Extending Conservation Corridors in Coastal Counties
	5800	8/9/2018	8/8/2018	Kittiwake Coastal Conservation Area

	5803	8/10/2018	8/10/2018	Establishment of a Coastwide Reference Monitoring System (CRMS) in Mississippi
	5804	8/10/2018	8/10/2018	Long Beach Harbor Enhancements
	5808	8/10/2018	8/10/2018	Quantifying water availability and quality from submarine discharge points into Gulf estuaries
	5809	8/10/2018	8/10/2018	Development of a Decision Support System to address management of nutrient and sediment loads entering bays and estuaries from Gulf watersheds.
	5810	8/10/2018	8/10/2018	Restoration of Piping Plover and other overwintering shorebirds through reductions in anthropogenic stressors

	5812	8/10/2018	8/10/2018	Groundwater-neutral strategies to create habitat for migratory shorebirds on private lands of the Mississippi Delta
	5815	8/10/2018	8/10/2018	RESTORE Gulf-wide stream flow study Mississippi Component - add the Pearl River to the existing project.

	5816	8/10/2018	8/10/2018	Bottlenose Dolphin Health Assessments to Monitor Restoration Effectiveness in Mississippi

	5817	8/10/2018	8/10/2018	Bottlenose Dolphin Photo-Identification Studies to Monitor Restoration Effectiveness in Mississippi
	5818	8/10/2018	8/10/2018	Trees Please Gulfport: Urban Forest for Clean Waters

	5820	8/10/2018	8/10/2018	Lower Pascagoula Nutrient Reduction
	5821	8/10/2018	8/10/2018	Addressing Harmful Human-Dolphin Interactions in Mississippi through Research, Education, and Enforcement

	5822	8/10/2018	8/10/2018	Trees Please Biloxi: Urban Forest for Clean Waters
	5823	8/10/2018	8/10/2018	Reducing Bycatch of Bottlenose Dolphins in Mississippi Commercial and Recreational Fisheries
	5824	8/10/2018	8/10/2018	Trees Please Pascagoula: Urban Forest for Clean Waters

	5825	8/10/2018	8/10/2018	Expand and Improve Marine Mammal Stranding Response and Monitoring Capabilities in Mississippi
	5826	8/10/2018	8/10/2018	Middle Escatawpa Nutrient Reduction

	5827	8/10/2018	8/10/2018	Upper Escatawpa Nutrient Reduction
	5828	8/10/2018	8/10/2018	Hobolochitto Nutrient Reduction
	5829	8/10/2018	8/10/2018	Trees Please Bay St. Louis

	5830	8/10/2018	8/10/2018	Bottlenose Dolphin Health Assessments to Monitor Restoration Effectiveness in Mississippi

	5832	8/10/2018	8/10/2018	A comprehensive, participatory approach to enhance conservation of marine mammals and sea turtles and the sustainability of the shrimp fishery
	5834	8/13/2018	8/13/2018	Incentivized use of small bar spacing TEDs in the otter trawl fishery of Mississippi
	5835	8/13/2018	8/13/2018	Enhancing the monitoring and enforcement of TEDs in coastal Mississippi

	5836	8/13/2018	8/13/2018	Industry outreach and education on specially designed TEDs for the Mississippi skimmer trawl fishery
	5837	8/13/2018	8/13/2018	Establishment of a TED outreach and training team for Mississippi
	5841	8/13/2018	8/13/2018	Assessment of Artificial Lighting Impacts on Sea Turtles and Public Outreach on Mississippi Mainland Beaches
	5845	8/13/2018	8/13/2018	Cat Island Visitor Access Facilities

	5847	8/13/2018	8/13/2018	Reduction of Marine Mammal Fishery Interactions through Demonstration and Implementation of Better Techniques and Materials for Constructin Trawl Components.
	5849	8/14/2018	8/14/2018	Quantification of nutrient and sediment loads into the Mississippi Sound and Mobile Bay to inform oyster management
	5850	9/7/2018	9/6/2018	BSL Downtown Amphitheater

	5852	9/10/2018	9/10/2018	Mississippi Coastal Improvement Program (MsCIP) Deer Island Ecosystem Restoration Program
	5855	10/25/2018	10/25/2018	William Carey University College of Osteopathic Medicine at Tradition

	5861	1/25/2022	1/25/2022	Biloxi Career and Workforce Training
	5864	12/14/2018	12/19/2018	Pearl River County Open Broadband Fiber Internet
	5866	1/14/2019	1/14/2019	Manatee Rescue and Rehabilitiaton Center in Mississippi

	5873	2/20/2019	2/20/2019	Wolf River Weyerhaeuser Land Protection
	5874	2/21/2019	2/21/2019	MSU Northern Gulf Aquatic Food Research Center

	5875	2/22/2019	3/15/2022	The Lower Pearl River Watershed Environmental Education Center and Completing the Unbuilt Arboretum at the Crosby Arboretum in Picayune
	5876	3/4/2019	3/4/2019	Unmanned Aircraft Systems (UAS) for Disaster Relief and Response

	5877	3/14/2019	3/14/2019	Coastal Environment Land Protection
	5878	4/4/2019	10/9/2019	Biloxi Upstream and Downstream Storm Water Education and Community-Engaged Green Infrastructure

	5879	4/8/2019	4/8/2019	KHSA Assault Landing Strip
	5880	4/16/2019	4/16/2019	Gulf Coast Mitigation Credit Program
	5881	4/16/2019	3/2/2022	Harbor Expansion Parking Area
	5882	4/17/2019	4/17/2019	On-Site Animal Holding and Facility Operations Building
	5883	4/17/2019	4/17/2019	Conservation Awareness Campaign (through interpretive signage and exhibits)
	5884	4/17/2019	4/17/2019	Marine Science Digital Command Center

	5885	4/17/2019	4/17/2019	Development of
	5886	4/17/2019	4/17/2019	Mississippi Aquarium Mobile Marine Unit (MMU)
	5887	4/17/2019	4/17/2019	Inside Explorer Technological Programs
	5895	5/20/2019	5/20/2019	Assessment, Restoration & Stewardship of INFINITY Land Holdings

	5896	5/28/2019	5/28/2019	STORM SURGE BARRIERS FOR BAY ST. LOUIS & BILOXI BAY
	5897	11/28/2020	11/28/2020	Walter Anderson Museum of Art Creative Complex

	5898	7/31/2019	4/8/2020	Improvement of Rehabilitation Facilities for Sea Turtles and Marine Mammal sin Mississippi to Service to north central Gulf of Mexico Region (MS, AL, LA)
	5900	10/7/2019	1/20/2022	TYR Resolution

	5901	1/24/2020	1/24/2020	Enhancing Gulf Waters through Forested Watershed Restoration
	5903	3/3/2020	3/3/2020	ISC Sustainability and Restoration Initiative

	5904	4/30/2020	4/30/2020	A comprehensive marine debris intervention strategy to help restore sea turtles in the Gulf of Mexico
	5907	4/30/2020	4/30/2020	Reduce Harmful and Lethal Impacts to Dolphins from Illegal Feeding Activities

	5911	5/2/2020	3/25/2022	Micro-refugia for shorebirds and seabirds - An incentive based project

	5913	5/2/2020	5/2/2020	Experimental Oyster Leases as a Platform for Demonstrating Effective Restoration Practices
	5918	5/2/2020	5/2/2020	Reducing sea turtle bycatch at shore-based recreational fishing sites

	5923	5/2/2020	5/2/2020	Identifying sea turtle interaction hotspots in the Gulf of Mexico shrimp fishery using passive acoustics
	5927	5/2/2020	3/25/2022	Modeling bird populations across the Gulf of Mexico to inform restoration planning

	5928	5/2/2020	3/25/2022	Developing a Gulf-wide bird population database to inform restoration planning

	5930	5/2/2020	3/23/2022	Coordinated Monitoring of Birds for Restoration and Conservation across the Northern Gulf of Mexico
	5933	5/2/2020	5/2/2020	Audubon Coastal Bird Stewardship

	5936	5/3/2020	5/3/2020	Kemp's ridley Stock Assessment
	5946	8/19/2020	8/19/2020	Gulf Coast CSET Tech Fusion - Advanced Technology Training for the 21st Century

	5947	10/12/2020	10/12/2020	PAWS (Pets and Wildlife) Exploratorium
	5949	11/24/2020	11/24/2020	Impacts of changes in freshwater flow and salinity on sea turtle distribution and ecology in Mississippi Sound

	5952	11/25/2020	11/25/2020	Nature-based Tourism with Increased Management and Stewardship for Beach Nesting and Foraging Species
	5955	1/1/1900	11/30/2020	Enhanced sea turtle mortality investigations

	5971	12/7/2020	12/7/2020	Mississippi West Indian Manatee Health Assessments and Research
	5972	12/7/2020	12/7/2020	Long-term bottlenose dolphin monitoring, research and health for conservation management in Mississippi

	5973	12/7/2020	12/7/2020	Barrier Island Shoreline Monitoring Using sUAS for Sea Turtle Stranding and Nesting
	5974	12/7/2020	12/7/2020	Restoring Sea Turtles to the Blue and Beyond: Establishing Mississippi"™s preeminent, sea turtle rescue, rehabilitation, and education (RRE) center at the Mississippi Aquarium (MSAQ)

	5976	12/8/2020	12/8/2020	Mississippi Sound Oyster Shell Recycling Program- Phase 3

	5985	2/5/2021	2/11/2021	Enhance conservation of bottlenose dolphins in Mississippi state waters by strengthening capacity for science-based marine mammal health and management

	5986	2/11/2021	2/11/2021	Enhance conservation of sea turtles in Mississippi state waters by strengthening capacity for science-based animal health and management
	5993	7/20/2021	3/16/2022	Jackson County Septic System Abatement Project - Phase 2

	5997	8/24/2021	1/21/2022	Gulf Coast Workforce Connect

	6003	8/26/2021	8/26/2021	Mississippi Cyber and Technology Center
	6004	8/26/2021	8/26/2021	MCCC - Parking Lot Safety & Security Improvements

	6005	8/27/2021	8/27/2021	Mississippi Aquarium's Turtle Rescue & Education Center
	6007	5/31/2022	8/27/2021	MH&LA Annual Convention & Expo
	6008	8/27/2021	8/27/2021	MH&LA Lodging Package Program

	6009	8/27/2021	8/27/2021	Jackson County Workforce Project
	6011	8/27/2021	8/27/2021	Facility Expansion at Trent Lott International Airport

	6012	6/30/2023	2/25/2022	Mississippi Coast Model Railroad Museum/Tourism/Economic Development/Infrastructure

	6017	9/7/2021	9/7/2021	South Mississippi Small Business Recovery Program

	6020	11/23/2021	11/23/2021	Gulf Sturgeon Head Start Restoration and Recovery Program
	6026	2/23/2022	2/23/2022	Enhancement of the Institute for Marine Mammal Studies/Ocean Adventures Public Outreach and Education Programs

	6027	2/25/2022	4/6/2022	MASGC Coastal Resilience Project
	6028	8/1/2022	2/25/2022	Beach Management to Restore Invertebrate Infauna and Shorebird Foraging Habitat

	6029	1/1/2023	3/4/2022	Comprehensive Bird-Based Education and Recreation Enhancements in Coastal Mississippi
	6057	3/25/2022	3/25/2022	Restoration of seabird habitat on the Navassa NWR

	6073	4/19/2022	4/25/2022	PRCC Hancock Aviation Aerospace Workforce Academy

DESCRIPTION

The Mississippi diamondback terrapin (Malaclemys terrapin pileata) is an estuarine turtle that exclusively inhabits coastal bays and salt marshes along the Atlantic and Gulf of Mexico coasts. It is considered a keystone species that contributes to the maintenance of salt marsh integrity. Terrapins were once abundant throughout their range; however, knowledge gaps exist regarding the viability of populations in many areas of the Gulf coast, including Mississippi. Numerous threats adversely affect terrapin populations including habitat loss, crab trap mortality, and nest predation.

In addition to these current threats, pollution from the Deepwater Horizon oil spill degraded vital salt marsh habitats in the northern Gulf of Mexico. Monitoring a long-lived species in a disturbed environment can provide insight into the extent of damage to the particular species along with its habitats and prey. Because the diamondback terrapin is a long-lived species and plays an important role in these estuarine habitats, it represents a critical bioindicator of the health and integrity of salt marsh ecosystems.

The events surrounding the Deepwater Horizon oil spill stressed the need for having a well-informed citizenry regarding marine conservation and restoration. A key to this goal is to support education and outreach programs whose mission is to teach the public about the great natural resources of the Gulf of Mexico. The Institute for Marine Mammal Studies "Center for Marine Education and Research (IMMS-CMER) is a premier marine education and conservation facility that offers a variety of educational programs designed to meet the academic and outreach needs of multiple audiences on educational topics including marine mammals, sea turtles, fish biology, marine invertebrates, threatened/endangered species, invasive species, point and non-point pollution, marine habitats, and water quality. Our current educational programs consist of:

"¢ Student camps that provide hands-on exploration of coastal wetlands, beach and barrier islands, birding, and fisheries,
"¢ Academic field-trips designed to familiarize students with the plants, animals, habitats, and processes of marine and aquatic environments tailored to the visiting age group,
"¢ Teacher Workshops provide teachers with opportunities to expand their knowledge of coastal issues and provide a venue for teachers to earn continuing education units (CEUs) or college credit, and
"¢ College field courses that expose students to applied marine science and marine mammal and sea turtle rescue and rehabilitation.

IMMS seeks to continue and enhance current educational and outreach programs while actively engaging in development of new programs to educate the public. These include:

(ORIGINAL ID#11460) Oyster Bayou and its adjoining bayhead swamp comprise approximately half of the Beauvoir 52-acre estate in Biloxi, MS. Operated through a 501(c)(3) nonprofit organization, Beauvoir is one of two National Historic Landmarks in South Mississippi and is open to the public every day of the year except Thanksgiving and Christmas. The estate, the last home of Jefferson Davis, includes a House Museum, a new Presidential Library and Museum Building and one of the few remaining urban forests in Mississippi. It is located on Highway 90, due north of the Harrison County Sand Beach and the Mississippi Coast Coliseum and Convention Center is its neighbor to the west. The grounds of Beauvoir traditionally have served as a catch basin for more than 300 acres of West Biloxi stormwater runoff. Thi once tidally-influenced area, which runs west-to-east midway across the estate, still empties into the Mississippi Sound through a culvert under Highway 90. Just prior to Hurricane Katrina, considerable public and private resources were invested over a 2-3-year period to restore approximately two thirds of the Oyster Bayou Restoration Project area. The weir, catch basins, vehicular access bridge, recontoured bayou banks and outdoor education pavilion survived the storm, but invasive plants species and sediment must be removed again, native plants must be reintroduced and the ADA-compliant boardwalk and educational signage must be repaired to bring this important natural resource back to its pre-storm condition. An estimated third of Oyster Bayou has remained untouched, in terms of restoration and storm clean-up. This is the area where the stormwater enters the estate through two culverts under Beauvoir Road. This area requires recountouring of the bayou banks and construction of a stormwater retention pond area to divert and slow the velocity of runoff as well as to expand capacity before the flow enters the main bayou area. Invasive plants must be removed and natives re-establ ished in this area, as well. Benefits of Oyster Bayou Restoration include improving water quality of the Gulf through reestablishing a bayou ecosystem that not only enhances wildlife and marine habitats, but provides a natural filtration system to treat runoff. In addition to the school children, scientists, naturalists and others who will benefit from exploring the restored bayou, the estimated 80,000 visitors to Beauvoir will have the opportunity to learn about this unique bayou ecosystem.

(ORIGINAL ID#11193) Bayou Auguste Environmental Enhancement Project is designed to protect and enhance Bayou Auguste. In the aftermath of the oil spill, BP affirmatively acted to protect this delicate area from harm therefore both parties have recognized the environmental importance of this body of water. The goal of the project is conservation and restoration of the waterway to it natural function as a tidally influenced water body. A secondary benefit is enhancement of public awareness of the Bayou's environmental importance via a trail along its banks. The total project funding sought from BP, PLC would be $685,000. The City of Biloxi has been working with the Gulf Coast Community Design Studio (GCCDS), Biloxi Housing Authority, Biloxi Public Schools, and the Land Trust for the Mississippi Coastal Plains in their effort to enhance and restore Bayou Auguste. The goal of this work is to conserve and restore Bayou Auguste to its natural function as a tidally influenced water body, and to enhance public access to the Bayou through the means of a trail along the banks. Water quality not only in the bayou but also in Back Bay will be improved by restoring the bayou's effectiveness as a natural filtration system for stormwater runoff and will enhance the ecosystem of the bayou to support marine and wildlife habitat, wetland restoration and public access. This project will include removal of riprap along the

(ORIGINAL ID#1065) There are 7 piers located along the 26 mile stretch of sand beaches in Harrison County, MS. These piers provide recreational opportunities for the residents and tourists. They are also a location where people can enjoy the view of the MS Sound and the adjacent Barrier Islands. In order to attract aquatic life - crabs, fish, etc., it is proposed to plant sea grasses and provide artificial reefs around

(ORIGINAL ID#11180) The Jackson County Board of Supervisors (JCBOS) is interested in completing a study designed to evaluate the oil spill impacts on a local level and with a focus on sediment transport with respect to movement of tar balls and contaminants along the beaches and into the bays and estuaries along the Jackson County coastline. Study of this area of the Gulf Coast is important especially since Jackson County plays a major role in the Mississippi Coastal Improvements Program Comprehensive Plan Elements as home to the Pascagoula River, the Dantzler Coastal Preserve, the Franklin Creek Floodway, Bayou Casotte, and others. Salt marshes and wetlands occupy the lowest elevations in Jackson County, especially in the coastal area and along the lower reaches of the Pascagoula River System. Sediments are commonly organically rich silts, clays and to a lesser extent sands. Salt marshes and wetlands are dynamic environments that are continually changing due to natural processes and human activities. They are currently recognized as an important and productive ecosystem that filters surface water, serves as habitat for wildlife, provides storage for floodwater, and affords recreational opportunities. The Study goals and objectives would be to: 1) identify areas of the Jackson County coastline where oil or tar balls remain, this task will facilitate further clean up of the coastal areas of the

Hurricane Katrina and the BP oil spill were very damaging to the ecosystems on the barrier islands of the Mississippi, Alabama, and Florida Gulf Coast. In addition, climate change continues to increase sea levels and also the likelihood of stronger and more frequent hurricanes. To counter these effects, a consensus has been developing that restoration of barrier island ecosystems will be needed, including replanting native trees.

The woody vegetation of the MS Gulf Coastal islands consists mostly of slash pine (Pinus elliottii) and live oak (Quercus virginana). During tropical storms, these islands are often inundated with sea water. After Katrina (2005), 80% of the slash pine and 50% of the live oak were dead within a few months following the storm. There was very little wind-throw, implying that the mortality was largely the result of seawater exposure.

With major hurricane events occurring every decade or so, it is expected that natural selection in these populations would result in genetic adaptation to survive seawater inundation. Slash pine occurs not only on the barrier islands but also well inland, far from saltwater exposure. Seed sources normally found in commercial nurseries are derived from inland populations. If such expected adaptation exists, It will be a serious error to replant island environments with inland sources that are not well adapted to saltwater exposure.

Mergen et al. (1966) compared barrier island slash pine with mainland sources and found significant morphological differences between the two sources. Saltwater tolerance was not studied in their investigation. Land (1973) found saltwater tolerances to be higher in slash pine than in loblolly pine. It is likely not a coincidence that slash pine is the only pine species found on the MS Gulf Coastal islands.

We have developed a saltwater tolerance screening system. This allows us to screen 100s of families for their tolerance to saltwater. In a recent preliminary study with 13 half-sib families originating from MS

"If they dream about it, they can do it!"

Provide a means for all people to enjoy inlet waterways and adapt multi-use facility to accommodate mobility impaired citizens and wounded warriors.

-New and existing multi-use facilities need to be built or added to for accommodating mobility impaired citizens and wounded warriors.
To enable Disability Community options enhancements of family Orientated Recreational Activities /Educational/Stewardship programs for all ages or even physically unconditioned Citizens

MDRS & Usm-Ids Misson Statement Quality of Life
Workforce Development/ Tourism/ Economic Development

Enhancement Recreation (Fhnb Chapter& Tournaments)
Ammenities for Loved Ones and Caretakers
22ac Cabins ada Outreach Robotic Lifting to Enable Disability Community Options to Enjoy Outdoor Activities (Islands & Inland)

(ORIGINAL ID#761)The Maritime & Seafood Industry Museum located on Pt. Cadet, Harrison County, Biloxi, MS serves as a welcoming beacon to the great City of Biloxi, an educational tool and a superior exhibit, for residents and visitors of the Mississippi Gulf Coast region, and for the great state of Mississippi. The Museum was established in March 1986 to preserve and interpret the maritime history and heritage of Biloxi and the Mississippi Gulf Coast, which came to prominence more than a century ago as one of the world's great seafood producers. Since it's opening, the Maritime and Seafood Industry Museum has become recognized for its interpretation of Mississippi Gulf Coast history, culture, and heritage. The Museum exhibits, the replicated sailing schooners, the educational programs, the schooner pier complex, and the research collections have proven invaluable to the citizenry of Mississippi as well as national and international clientele. Special programs held within the museum, has seen it featured on regional and national television. The Museum expanded another 8,000 sq. ft. in 2003 and in 2005 was destroyed by Hurricane Katrina. The new three story 20,000 sq. ft. museum reopened in August 2014 at a cost of approximately $10 million.
Since 1986, the Museum has been on a steady path of accomplishment "from our award-winning building to our exhibits and tools "but there is much more to accomplish. Our educational and economic impact within the community, the region and the state has made the Maritime and Seafood Industry Museum a destination of enjoyment and a significant economic contributor.
Our $8 million expansion would build a state of the art Exhibit Hall that will play host to world class traveling exhibits. The Museum is convinced the addition of the Exhibit Hall will elevate the Museum experience and enhance the regional economy through the distribution of admission dollars and funds raised from sponsored traveling exhibits. It would also enable the Museum a larger venue for convention space for one night events away from the Casinos.
Tourism is frequently seen as a way of creating new employment opportunities in regions which have suffered from devastating hurricanes or oil spills. Mississippi's Gulf Coast has embraced the tourist industry, bringing in major casinos and support services to keep tourist engaged. Visitors stay at hotels,

(ORIGINAL ID#11840) Proposed Restoration Project: The project would clarify the effects of barotrauma on red snapper and better define expected rates of discard mortality in the Gulf of Mexico. Additionally, the project will determine, through stakeholder involvement, methods and devices best fit to increase post-release survivorship of red snapper in Gulf fisheries. A detailed understanding of barotrauma and its effects on red snapper will inform efforts to help the recovery of fish populations impacted by the Deepwater Horizon (DWH) oil disaster. Link to Injury: The DWH oil disaster footprint overlapped with portions of the geographic range and spawning period of many reef fish species, including red snapper (Lutjanus campechanus). The eggs and larvae of red snapper and other finfish spawning at the time, in addition to adult fish, were exposed to petroleum hydrocarbons and chemical dispersants. Acute mortality of fish eggs and larvae and sublethal effects on adult fish could affect year class strength and population levels. Benefit and Rationale: Red snapper is an iconic and popular recreational and commercial fish species in the Gulf. In 2011, commercially landed red snapper had an ex-vessel value of $11.5 million. The recreational fishery generates millions of dollars as well. Red snapper are known to suffer from barotrauma related injuries and mortality. Barotrauma is the condition that results when a fish is brought up from depth rapidly and the change in ambient pressures can cause potentially lethal internal injuries. Most red snapper barotrauma studies have been regional , and have not encompassed the full geographical, depth and temperature ranges in which the red snapper fishery is prosecuted. Increasing the post-release survival rate of red snapper Gulfwide would reduce the impacts of fishing and allow the population to recover from the DWH injury. Description: Red snapper are susceptible to barotrauma. Barotrauma can cause internal injury (e.g., gas bladder rup ture, hemorrhaging, etc.) and positive buoyancy (i.e. floating). These injuries may not allow the fish to return to depth upon release or cause behavioral effects that can increase the risk for predation. Mortality caused by barotrauma hinders rebuilding of overfished populations of red snapper and could deter recovery from DWH impacts. Overall, fishery managers lack data on the post-release mortality of many reef fish species, including red snapper. This prevents accurate prediction of discard mortality in commercial and recreational fishery harvest estimates and stock assessments. Lack of confidence in release mortality may

(ORIGINAL ID#12066) The events surrounding the Deepwater Horizon oil spill stressed the need for having a well-informed citizenry regarding marine conservation and restoration. A key to this goal is to support education and outreach programs whose mission is to teach the public about the great natural resources of the Gulf of Mexico. The Institute for Marine Mammal Studies-Center for Marine Education and Research (IMMS-CMER) is a premier marine education and conservation facility that offers a variety of educational programs designed to meet the academic and outreach needs of multiple audiences on educational topics including marine mammals, sea turtles, fish biology, marine invertebrates, threatened/endangered species, invasive species, point and non-point pollution, marine habitats, and water quality. Our current educational programs consist of: - Student camps that provide hands-on exploration of coastal wetlands, beach and barrier islands, birding, and fisheries, - Academic field-trips designed to familiarize students with the plants, animals, habitats, and processes of marine and aquatic environments tailored to the visiting age group, - Teacher Workshops provide teachers with opportunities to expand their knowledge of coastal issues and provide a venue for teachers to earn continuing education

In December of 1993, the City of Gulfport annexed 33 square miles north of its then current limits making it the second largest city in Mississippi. As expected with any annexation, the City has since worked on incorporating private infrastructure into its public system.

This infrastructure project consists of adding sewer service to 17 different areas encompassing over three square miles in northern portions of the City still on private sewer and septic systems. Providing access to adequate sewer utilities could benefit the local economy and stimulate job-creation by encouraging future development. Similarly, this project could benefit community-resilience due to increased flood risks associated with sea-level rise by encouraging development in portions of the city that are generally

Located immediately north of a 0.5 mile stretch of a four lane section of Three Rivers Road (from Creosote Rd to Seaway Rd), the bulk of the approximately 1.25 mile stretch of Three Rivers Rd between the industrialized Seaway Rd and Dedeaux Rd is two lanes with no center turn lane. This commercial corridor is vital to the City of Gulfport economy as Three Rivers Rd provides direct access between the Gulfport-Biloxi International Airport and many commercial developments, and between the airport and Dedeaux Rd.

This project seeks to widen this 1.25 mile stretch from the existing two lane road to a proposed four lanes with a center turn lane. Combined with the Dedeaux Rd widening project currently under design, with recently constructed projects, and with other already-funded design projects in the area, this project will be the last leg of 5-laning all main collector roads on the heavily-commercialized north side of the airport. The economic benefits of the road widening in this area will be realized with the potential for new businesses and tax revenues also bringing needed jobs to the area. The quality of life improvements for these businesses and local residents will be seen in less congested and safer roadways. It will also

Located at the intersection of 28th Street and Canal Rd near the western corporate limits of the City of Gulfport, immediately north of the Naval Construction Battalion Center (NCBC) of Gulfport, this project seeks to install a new elevated storage tank to replace the existing 75,000 gallon tank in the area. This project will also provide new public water mains along Canal Rd to strengthen existing infrastructure.

The proposed water tank and water infrastructure will provide more capacity and more reliable service for the City of Gulfport system. With proposed Navy Base upgrades and expansions combined particularly with the needs of the nearby Port of Gulfport expansion, upgrades to the existing water system are imperative for the City to provide adequate service to all existing and proposed customers in

The length of Lorraine Road (MS 605) along Seaway Island currently has no street lights. However, both the south side and north side of Seaway Islands are well lit. This section of non-contiguous lighting on Seaway Island has created less desirable conditions for commercial development. This project proposes to install street lights along Lorraine Rd the length of Seaway Island (from Kramer Marina to Industrial

The City of Gulfport's Sportsplex is strategically located near the northwestern corner of the busy intersection of Interstate 10 and Highway 49. The facility offers 9 multipurpose baseball/softball fields, 4 Multipurpose athletic fields (i.e. soccer), associated buildings (concessions, restrooms, maintenance, etc.), associated infrastructure, and an area leased to Gulf Islands Waterpark. In 2013, this facility directly produced nearly $100,000 in revenue and is estimated to have had a $20-$25 million total economic impact. The bulk of this impact came from the 52 tournaments across 6 different sports hosted at the Sportsplex in 2013 alone.

Despite its ongoing success, the facilities size and field offering limits the types of tournaments and other opportunities it can handle. Routinely, regional tournaments consider the Mississippi Gulf Coast for its centralized location, but ultimately are relocated to competitive markets due to the lack of facilities. This proposed project consist of three concurrent phases. First, after its 14 years of operation, a growing number of repairs and improvements to existing facilities is required. Secondly, the City of Gulfport already owns enough land to add some facilities; current planning efforts consider adding: batting cage

The City of Gulfport has been experiencing rapid growth north of I-10. In order to accommodate this growth and make the area attractive to future residents and businesses, upgrades to circulation are required. One area of interest is O'Neal Road, a major east/west thoroughfare connecting MS 605 with Hwy 49. An existing one mile stretch of O'Neal Rd between Three Rivers Rd and Flat Branch is a two lane road with no center turn lane and no curb and gutter. This project proposes to widen this heavily developed stretch to a proposed two lanes and a center turn lane with curb and gutter on both sides. This road section would then match the road section to the west from Hwy 49 to Flat Branch Creek, completing road widening between Hwy 49 and Three Rivers Rd.

The quality of life improvements for commuters in this area would be realized immediately by improving traffic speeds and eliminating dangerous left-hand movements from travel lanes. Furthermore, the increased traffic flow and capacity would entice new development and provide for future tax revenues for

Turkey Creek Watershed covers approximately 11,000 acres in north Gulfport, Long Beach, and Harrison County. The watershed's two (2) main waterbodies are in need of significant restoration and enhancement. Turkey Creek and Brickyard Bayou are approximately 14 miles and 5 miles long, respectively. Both waterbodies are slow-moving coastal streams/tidal creeks that flow into ecologically important, sheltered estuarine ecosystems connected to the Back Bay of Biloxi and the Gulf of Mexico.

This project will restore and enhance these individual estuarine streams to provide an aquatic corridor that serves as a sheltered nursery and as a rearing area for multiple saltwater fish species including those with recreational and commercial value. In addition, recovering the ecological health of these small estuaries would allow them to provide a sheltered refuge for larger and more mature fish during natural or anthropogenic events such as storms, droughts, or oil spills. Enhancements to Turkey Creek will further offer an opportunity to actively organize and empower a local minority committee in designing, permitting, constructing and maintaining a socially acceptable restoration effort. Leah Manhan's 2013 film, "Come Hell or High Water: the Battle for Turkey Creek," describes the history of Turkey Creek, and the detrimental effects of human activity, land development, and natural occurrences.

In 2006, a report was prepared by the "Land Trust for the Mississippi Coastal Plain" entitled "Watershed Implementation Plan for the Turkey Creek Watershed" (funding from the Environmental Protection Agency Region IV). This report, focusing on Turkey Creek, confirmed that Turkey Creek, like Brickyard Bayou and the entire Turkey Creek watershed, faces environmental degradation from: filing of wetlands, channelization, trash and debris, unregulated development and construction, uncontrolled stormwater increases, aquatic, terrestrial, and riparian habitat dilapidation, invasive species (particularly Chinese Tallow and cogongrass), and chemical contamination.

Accordingly, Turkey Creek and Brickyard Bayou require similar restoration and enhancement efforts

Living Shorelines (LS) are primarily designed to control erosion using non-traditional materials that enhance shoreline stability while preserving natural coastal processes. Although these approaches for shoreline protection have been successful for increasing shoreline stability and improving localized biotic integrity in some areas, very few projects are monitored to evaluate long-term success. Given the novelty of LS, each project represents a unique opportunity to gain valuable information that can be used to inform future project design within an adaptive management framework. We propose a long-term, multifaceted monitoring approach for several proposed and newly constructed LS along the Mississippi coast that includes measuring physical and biological variables to determine if LS are improving shoreline stability and increasing biotic integrity compared to unaltered control sites.

The first objective is to quantify the effects of LS on shoreline stability, soil properties, water quality, and biotic communities compared to unaltered control sites that are likely candidates for shoreline protection, but are not receiving a treatment. Physical parameters include shoreline erosion, sediment quality, and water quality. Biological parameters include infaunal, demersal, and nektonic communities, and diamondback terrapin nesting and movement. The second objective in this study is to develop cost-benefit analyses for each monitored living shoreline by valuing project costs and net benefits for each site using functional values of sediment storage, nutrient retention, shoreline habitat, land values, and project

Kemp's ridley sea turtles are a Critically Endangered species that relies heavily on the north-central Gulf of Mexico for developmental habitat for foraging juveniles and sub-adults. Since 2010, more than 800 sea turtles, mostly immature Kemp's ridleys, have stranded dead along the Mississippi coast raising important questions about regional ecosystem health. Additionally, over 300 immature Kemp's ridleys have been incidentally hooked at local fishing piers in Mississippi. A variety of factors are likely responsible for increased strandings including degradation of natural oyster reefs and subsequent declines in abundance of essential prey items of the species that rely on these habitats. Declared failures of both oyster and blue crab fisheries in recent years support this hypothesis and illuminate the importance of a healthy ecosystem for recovering populations of Kemp's ridleys.

The purpose of this project is to facilitate the recovery of Kemp's ridley habitat by 1) monitoring the effects of recently established artificial and oyster reefs in the Mississippi Sound on Kemp's ridleys and essential prey items, and 2) establishing programs to enhance wild stocks of Kemp's ridley prey. These efforts will provide critical information for understanding the importance of reef habitats for developing

In the aftermath of BP Deepwater Horizon Oil Spill, larger numbers of bottlenose dolphins and sea turtles have stranded in the northern Gulf of Mexico, and many of these strandings have occurred along the coast of Mississippi. The Institute for Marine Mammal Studies (IMMS) has played a central role in the stranding response and rehabilitation efforts during this time. The proposed project will promote the restoration and recovery of dolphin and sea turtle populations in Mississippi waters through a systematic approach of 1) responding to dolphin and sea turtle strandings; 2) rehabilitating sick and injured dolphins and sea turtles; and 3) monitoring the recovery of wild dolphin and sea turtle populations. Representing apex predators, dolphins and sea turtles are ideal bioindicators of ecosystem health. This project, led by Mississippi State University (MSU), will facilitate understanding of how these species have endured numerous environmental stressors and foster their future survival, which is imperative for the restoration and recovery of the northern Gulf of Mexico.

This project adheres to the selection criteria set forth by the National Fish and Wildlife Foundation (NFWF), to remedy harm and eliminate or reduce the risk of future harm to Gulf Coast natural resources that were impacted by the Deepwater Horizon oil spill. This project conforms to NFWF criteria as follows:

-The Mississippi Sound and adjacent waters were directly impacted by the oil spill and response activities

-Marine mammals and sea turtles experienced direct and indirect injury resulting from the oil spill and response activities in the north-central Gulf of Mexico

-Project includes science-based methodologies that produce measurable and meaningful conservation outcomes to marine mammals, sea turtles, and their habitats

-This project will help mitigate damages from the oil spill, aid in the restoration and recovery of these species, and enhance management of marine resources by state and federal agencies

The Mississippi Sound and adjacent waters of the north central Gulf of Mexico (nGOM)

Hardening the Bay of Saint Louis with oyster & clams; reintroducing sea grasses along the shoreline compatible with tidal hydrology and salinity; monitoring both conservation & recovery are components of this project. By hardening the Bay of Saint Louis with oyster and clams, water quality will be improved. Erosion as seen on slides 4 and 5 should be reduced or eliminated and monitoring stations should show anticipated accretion.
Stream restoration, sedimentation control, ditch bank restoration, habitat restoration, natural resource & monitoring both conservation and recovery are the components of this project. Stream and ditch restoration will enhance the quality of water in adjacent waterways in addition to detention ponds and overflow discharge outfalls located within the City.
This project adds a new nature trail and bird sanctuary consisting of a combination of trails, pedestrian bridges and boardwalks through the wetlands along the Jourdan River in Diamondhead. There would be trailheads at Akoko Street near the new Nature Education Center and Airport Drive by the Diamondhead Airport. It would connect the Waterfront District on the Jourdan River to the Airport.
This project consists of building a nature education center in the marsh along the Jourdan River to provide residents, students and visitors information about this amazing ecosystem in Coastal Mississippi. This is an open-air facility that will have marine educational information about birds, animals, fish, other marine life, trees, wetlands, etc. The facility will be connected to a system of nature trails as well as the
The City of Biloxi proposes to implement its 1980s master plan for utilizing the corridor of public land located under Interstate 110, which runs north-south from the Back Bay of Biloxi to the Mississippi Sound. The original master plan, developed with considerable citizen input, is being updated to include storm water management improvements and acquisition/restoration of a wetlands area adjacent to the I-110 Corridor, north of Division Street. Storm water management improvements will include installation of BMPs along the corridor to filter nonpoint source pollutants from the interstate's storm water that drains unchecked from the elevated roadway. The BMPs will have an educational component, identifying their function in improving water quality through all-weather signage located along the walking paths that currently exist (and which are to be enhanced with additional lighting and drainage). Public safety and recreational amenity improvements will expand use of this area by residents and tourists. The south end of the corridor is located immediately west of the minor league baseball stadium being built and the Beau Rivage Casino Resort. The north end includes an under-utilized boat ramp, basketball and tennis courts, all of which are in need of improvements and lighting.

The City of Biloxi proposes to implement a variety of shoreline stabilization measures along the Biloxi Peninsula in areas owned and/or managed by the City to control erosion, adapt to sea-level rise and improve public safety and access. Shoreline improvements will include stormwater management BMPs accompanied by all-weather educational signage to identify short- and long-term public benefits of a properly-managed waterfront.

Improvements will include removal of nonnative, invasive plants species; installation of appropriate native plant species to support shoreline stabilization and restoration of shoreline habitats; removal of concrete, riprap, abandoned/obsolete infrastructure and miscellaneous debris; and stormwater management improvements to improve water quality. Public safety and access improvements will include provision of lighted, ADA-compliant boardwalks, where appropriate, designed for storm

Mercury Methylation Rates, Isotopic Composition, and Trophic Transfer in the Northern Gulf of Mexico

James Cizdziel, Ph.D., University of Mississippi

The Problem. There is a significant gap in understanding the sources and pathways of methylmercury (MeHg) entry into food webs in the northern Gulf of Mexico (GoM). This is of particular concern because, on average, residents of the Gulf Coast consume more marine fish than other U.S. residents, and because GoM fish tend to have higher levels MeHg than fish from other coastlines.1,2 Indeed, as much as 30% of the coastal population is estimated to exceed EPA's reference dose for MeHg, which is used as a criterion to protect human health.3 Moreover, with the economy of the Gulf coast states intricately linked to the GoM through fishing (both commercial and recreational), understanding the distribution, levels and cycling of Hg species is vital to the long-term health and stability of the region. Recognizing this, the National Science and Technology Council issued a 2004 report on "Methylmercury in the Gulf of Mexico: State of Knowledge and Research Needs"; identifying major data and knowledge gaps".4 Nearly a decade later the Gulf of Mexico Alliance, Water Quality Team, Mercury Workgroup, developed a White Paper titled "Mercury Fate and Transport: Applying Scientific Research to Reduce the Risk from Mercury in Gulf of Mexico Seafood".3 The document lays out many of the same scientific research priorities with the goal of mitigating risk of Hg exposure to humans. Yet there remains a paucity of measurements of MeHg in the Gulf and virtually no progress in answering fundamental questions such as: where in the GoM is MeHg, and where is MeHg most bioavailable (i.e. where does the majority of MeHg enter the foodweb?). The time for action is now. Below is a plan that includes innovative analytical techniques that would finally help to answer these questions.

Objectives. The objective of this work is to quantify and compare MeHg levels, isotopic compositions, and Hg methylation rates in a key estuary and coastal area in the northern GoM. We will, for the first time, use recently developed analytical approaches to trace the sources and movement of

1. INTRODUCTION

This proposal seeks to establish and implement a training program for the Gulf Coast region, called MississippiSound, through the Mississippi State University Extension Service (MSU-ES), with the mission of providing training, information, and resources for the general public to foster environmentally-friendly landscape practices. The consumer and community outreach program will encourage Gulf Coast stakeholders to utilize landscape design and management methods that will reduce property stormwater runoff and leaching leading to the contamination of surface and groundwater.

The Mississippi State University Extension Service has an established delivery method for extending knowledge to the public, and a proven track record. For more than 100 years, the MSU Extension Service has provided research-based information, educational programs, and technology transfer focused on issues and needs of the people of Mississippi, enabling them to make informed decisions about their economic, social, and cultural well-being. Extension's overall purpose is to provide education that will empower people to make intelligent decisions relating to their vocations, their families, and their environment. The Extension Service believes that quality of life is affected by the reciprocal relationship between people and their environment and therefore, environmental issues are of great importance.

The Crosby Arboretum, located within the Gulf Coast region, is the premier environmental education center in the state of Mississippi, dedicated to educating the public about their environment. The 104-acre interpretive site is owned by Mississippi State University and operated by the MSU Extension Service. The Arboretum's mission is to preserve, protect, and display plants native to the Pearl River Drainage Basin ecosystem, a major Mississippi watershed. The facility provides environmental and botanical research opportunities, and cultural, scientific, and recreational programs, as well as programs which provide education about the region's biological diversity. The Arboretum also maintains 700 acres of off-site natural areas in the Gulf Coast region, preserved for scientific study. Many rare, threatened, and endangered species of plants and wildlife are found within Arboretum preserves.

This project proposes a world-class aquarium to be built along U.S. Highway 90 in Gulfport, Mississippi on a total of approximately 18 acres of land overlooking the redeveloped Jones Park and Small Craft Harbor. Depending on features, shows, and exhibits, it could be as large as 130,000 square feet, and cost in the neighborhood of $120,000,000. This facility will serve to fill the void left by the loss of the Marine Life Oceanarium and provide for a much-needed family-friendly and education-oriented tourism facility for our Gulf Coast market.

Unlike many projects that seek either full funding or have no stakeholder buy-in, this proposal has been in the works for some time, with the understanding by Gulfport city leaders that in seeking support, local commitment must be demonstrated to emphasize the significance of the shared vision of making this a reality. On December 2, 2014, the City Council unanimously approved obligating $14 million of City funds toward the purchase of approximately 10 acres of land to be acquired for this project site. When combined with the County Library and CTA properties, there will be roughly 18 acres for development as a campus for this project which has the potential to also include retail, restaurant, and lodging amenities. The appeal of this location is not only the scenic overlook, but the elevation itself is more desirable than at the water's edge. It is important to note that this section of Gulfport's downtown remains under-utilized, undeveloped, and modestly blighted. From an urban renewal standpoint, this is a home run! Obviously, the economic benefit to Gulfport and the surrounding communities can be a game changer through increased tax revenues and site leases.

The Gulfport Redevelopment Commission will have developmental authority over this project, and has taken a methodical approach to performing due diligence measures in order to achieve an accurate picture of what the potential for this ambitious development represents. To that end, David Kimmel, former Construction Project Manager and Executive Director of the Georgia Aquarium, has been hired as a consultant to assess options, reach out to industry contacts, and make recommendations to guide our progress. A market assessment is currently underway with the objective of confirming the range of customer draw, anticipated number of visitors, exhibit type, animal/species features, interactive attractions, physical plant requirements, square footage size recommendations and configuration, and

INTRODUCTION: The Institute for Marine Mammal Studies (IMMS) is a non-profit 501 (c) (3) organization dedicated to marine education, conservation, and research of marine mammals and sea turtles in the northern Gulf of Mexico. It operates a premier, state-of-the-art Center for Marine Education and Research (CMER) in Gulfport, Mississippi. It is the only facility on the Mississippi Gulf Coast that has the capability and expertise to care for sick and injured marine mammals and sea turtles while providing opportunities for marine education and research. IMMS serves as a liaison between public and private entities interested in marine mammal science and has partnered with the University of Southern Mississippi, Jackson State University, Louisiana State University, University of South Alabama, and the Mississippi Department of Marine Resources (MSDMR) to fulfill the state and federal needs regarding marine education, research, and response to and care of stranded marine mammals and sea turtles. IMMS also played a central role in the response to the BP oil spill in the northern Gulf of Mexico. Information on the programs and activities of IMMS can be obtained from its web site: www.imms.org

REQUEST: IMMS proposes to construct dormitories and additional classrooms at the CMER in order to enhance research and educational programs and activities. This would allow IMMS to better collaborate with graduate students and scientists from the U.S. and abroad by providing inexpensive accommodation. IMMS works with nearby Universities and would like to expand its collaborative efforts to include other Universities in Mississippi which are located up to six hours away. The proposed dormitories would allow students and researchers from these Universities to contribute to the research efforts that are being conducted by IMMS in conjunction with MSDMR.

The West Jackson County Constructed Wetlands Treatment System was established in in 1990 to treat the centralized wastewater collected in western Jackson County, Mississippi. As wastewater passes through multiple cells of wetland vegetation, excess nutrients, heavy metals, and other environmentally harmful contaminants are removed from it prior to release into Costapia Bayou. In addition to wastewater treatment, the wetlands are a favored habitat for a variety of wildlife and serves as a complementary habitat to the adjacent MS Sandhill Crane National Wildlife Refuge. Due to the concentration of birds in these wetlands, we formed an agreement with the National Audubon Society to open the facility for avian observation and counting every Thursday. For the last several years, the wetland vegetation has been decimated by the invasive apple snail. Apple snails are a serious threat to freshwater wetlands and estuaries worldwide, with severe damage documented along the Gulf of Mexico coast. Consumption of wetland vegetation by the apple snail has led to drastic reductions in the wastewater treatment efficiency and wildlife habitat. The main objectives of this proposal are to restore the functionality and habitat provided by this treatment wetland through eradication of the apple snails and restoring of vegetation. The Jackson County Utility Authority has begun efforts to remove apple snails under monitoring by the

The City of Biloxi is requesting funding support to remove marine debris and to restore the shoreline of Point Cadet from the Biloxi-Ocean Springs Bridge north to the Biloxi Fishing Bridge. Debris removal, storm-resilient shoreline stabilization measures and pedestrian access improvements along the City-owned waterfront property will expand public opportunity to access a unique area where the Mississippi Sound merges with the waters of the Back Bay of Biloxi. The project will enhance preservation of undeveloped shoreline for the benefit of the public as well as for marine and bird species. In addition, low impact all-weather educational signage will expand opportunities to learn about habitat supported by tidally-impacted areas and to encourage long-term stewardship of Coastal natural resources.

The project includes extending the small sand beach on the shore east of the Maritime and Seafood Industry Museum; incorporating the use of the seawall in improving pedestrian access; improving the safety and security of the walkway under the Biloxi-Ocean Springs Bridge; and constructing a small pier for fishing and crabbing. Upland improvements to be built near the MSIM include a shoofly around a mature live oak tree; a gazebo; a fountain; a foundation for the Golden Fisherman statue; and a wooden boat-building and training demonstration site.

Those who attend the many activities hosted at the MSIM and/or Biloxi Waterfront Park frequently are tempted to walk along the shoreline north of the Park's splash pad to access the nearby Biloxi Fishing Bridge. Hurricane debris, litter, unchecked invasive plant growth and lack of a well-defined, level walkway make what should be an enjoyable nature walk into a hazardous experience. Project implementation will address this problem by providing ADA-compliant pedestrian connectivity along the shoreline of the project area.

In addition to the general public, others who will benefit specifically from project implementation are shoreline and wade fishermen, throwers of cast nets and those who enjoy non-motorized water activities such as kayaking, canoeing, and paddle boarding. Participants in the MSIM's numerous educational

On December 24, 2015, the National Diabetes and Obesity Research Center and Tradition-Medical City submitted Project #5460 to the RESTORE Project Portal. The information below is an update to Project #5460 based on a recent study and updated design and building estimates.

The National Diabetes and Obesity Research Institute (NDORI), a Mississippi (MS) non-profit 501 (c)(3) corporation, is an innovative, translational research institute focused on the population-based study and treatment of diabetes and obesity, currently in its infancy. The singular focus of NDORI is to find a cure for diabetes - a disease that impacts more than 15% of MS's population.

NDORI is located at Tradition, a 4,800-acre master-planned community in Harrison County at the intersection of Highway 67 and Highway 605 north of Biloxi and Gulfport. NDORI represents a unique opportunity to invest in the long-term health of the state, position the MS Gulf Coast as a regional leader in the growing health and life-sciences industry, create a catalyst for exponential economic growth, and promote community stability through development and investment. The concept would be one of the cornerstones of a healthcare, bioscience cluster: the Tradition Medical City.

In spring 2018, Southern MS Planning and Development District (SMPDD) commissioned Arduin, Laffer, and Moore Econometrics and The University of Southern MS to study the economic impact of a future healthcare cluster with the Tradition Medical City at the nexus; the final product of this study was published as "The Socioeconomic Impact of a Healthcare Research Cluster at Tradition, Mississippi." Based on the proven theory that a cluster of healthcare and bioscience facilities in proximity to one another will accelerate innovation, this intellectual hub will serve as a catalyst for medical industry growth, residential development, and a primary destination for hospitals, universities, research institutions and health and life science companies. The economic impact study measured the potential for future growth of NDORI and Tradition based on the success of other existing healthcare clusters at Lake Nona, FL, and the Research Triangle Park in NC. Based on these findings, NDORI and Tradition will

Diamondhead Water and Sewer District is located in Hancock County Mississippi within the City of Diamondhead. We provide water and sewer service to approximately 4300 customers and a population of 9100. The District's certificated area is located within watershed areas that drain with open ditches and nominal amounts of subsurface drainage. The discharge points for these watershed areas are tidally influenced due to the geographical location of the District's certificated area. Located along the Southern Certificated Area Boundary is the Northern Shoreline of the Bay of St Louis, the Western Certificated Area Boundary is the East Shoreline of Rotten Bayou and the Northern Certificated Boundary is the Southern Shoreline of Rotten Bayou and Bayou LaSalle.

Forty years ago the clay sewer mains were installed in the District's certificated area at the primary material for sewer mains. At the time of installation, pipe bedding standards were not as widely understood as they are today. The rigid nature of clay makes it very brittle and when unstable soil conditions are introduced, cracking will occur. Once a clay sewer pipe cracks and starts to leak the surrounding soil enters the pipe with any flow creating voids and uneven loads and eventually the pipe will collapse. The District is currently experiencing large amounts of inflow and infiltration as a result of a large portion of our infrastructure consisting of cracked and leaking 40 year old clay pipe that needs rehabilitation. The increase in I&I causes excess amounts of water into the sewer infrastructure resulting in sewage overflows, costly cleanup and potential hazards to the environment

The Jackson County Board of Supervisors is proposing the construction of a new Interstate 10 interchange with Old Fort Bayou Road. The right-of"“way is available for immediate consideration for construction and would strategically position a new access point for entry into Jackson County from Interstate-10.

Centrally located approximately four miles east of the Washington Avenue/Highway 609 exit and approximately four miles west of the Highway 57 exit, this interchange would provide much needed relief from traffic congestion in this heavily traveled area of the I-10 corridor.

The Washington Avenue/Highway 609 area has experienced tremendous growth in the last few years as the population tends to migrate to the north, and this interchange would help to alleviate the substantial traffic burden in that area in addition to providing easy access to prime developable property adjacent to Interstate 10.

Not only would this interchange serve to improve the lives of the local community, but it also provides opportunities for the establishment of new service industries such as gas stations, hotels and restaurants to attract travelers.

This project consists of construction of a new overpass at McCann Road and Interstate 10 in the St. Martin Community. This new overpass will provide a direct connection from the Commercial Business District along Lemoyne Blvd. to the new Commercial Business District along the I-10 Connector road, thereby increasing access and opportunity for new growth in this area.

The addition of this strategic access linking two commercial business districts will maximize the growth potential for both areas. The short term direct economic stimulus will be immediately felt throughout the community in the form of employment and income for the construction industry and indirectly by many others who are employed by companies that provide materials, equipment, and services that are required to support the project.

Workers for whom jobs are created by this project have new income to spend on consumer goods and services, which in turn creates new jobs in retail, manufacturing of consumer goods, food processing and personal services.

A vision for the future, neighborhood support, and infrastructure are key elements to attracting developers to invest in existing communities. The implementation of several major access routes along

Water trails are marked routes on navigable waterways such as rivers, typically for people using small non-motorized boats, such as kayaks and canoes. Originally created by environmentalists and conversationalists to encourage environmental awareness, they have evolved to be recreational routes on waterways with a network of access points.
The Pascagoula River is the largest by volume unimpeded river in the contiguous 48 states. This project will develop ecotourism opportunities by establishing and developing a scenic water trail along the Pascagoula River. This scenic water trail will bring sustainable rural development to communities along the river in Jackson County.
As the State's first water trail, it will serve to strengthen and extend recreational opportunities for residents and visitors. Trailheads will be constructed in four strategic locations along the river. Each trailhead will provide amenities such as public boat and kayak launch, pavilions, parking for visitors, and a kiosk with a map of the area.
Although new to the State of MS, water trails have been implemented in other states and studies have been conducted to measure their economic impacts. While dissimilar in their measurements and time frames for data collection, each report shows that water trails can increase paddle sports tourism and bring new money into local economies.
The studies also explored social benefits to a community and found that water trail communities experienced lower poverty rates and higher education and health levels than communities that do not provide recreational activities. Increased tourism around water trails will bring additional tourism dollars

Diamondhead Water and Sewer District is located in Hancock County Mississippi within the City of Diamondhead. We provide water and sewer service to approximately 4300 customers and a population of 9100. The District has significant amounts of inflow and infiltration, aging sewer mains of which 47% are 30 plus year old sewer clay pipe, lift stations and discharge force mains that need all need to be reviewed for current and future service needs. The district needs a Master Sewer System Study conducted for the sewer collection system to: evaluate inflow and infiltration, lift stations and discharge force mains; to serve as a logical, cost-effective framework for making organizational changes; to assist with meeting new environmental regulations and for environmental impact.

The scope of work for this project will consist of advertising for RFQ's, selecting a firm to complete the Master Sewer System Study and completion of the Study. The benefit of this project is to evaluate the

NOAA Project ID#13110: Mississippi Sound currently has a variety of planned, ongoing, or completed habitat restoration projects (e.g., living shorelines, island restorations, oyster reef replenishment), and compensatory restoration projects (artificial reefs). All of these are within federally designated, critical habitat for Gulf Sturgeon (GS), and habitat for important coastal pelagic finfish (Mackerel, Red Drum). These projects have the potential to alter habitat characteristics (sediment composition, water quality, macroinvertebrate abundance) important to these fish. Restoration efforts require assessment for potential impacts on these species (e.g., loss or conversion of foraging habitat), specifically for GS. Unfortunately, most of the science related to GS habitat dependency is derived from work in their eastern range, and may not be applicable to silty-bottom habitats in the west. Additionally, artificial reef projects may enhance habitat for coastal finfish, but bury GS habitat. The objectives of this project are to describe habitat-specific occupancy patterns for GS and other coastal pelagic finfish (Mackerel, Red Drum) within Mississippi Sound, in relation to restoration projects. Specifically, we will (1) develop an acoustic telemetry array within restored and non-restored habitats to monitor acoustically tagged target species to determine habitat use and occupancy, (2) assess use patterns of these species in restored versus non-restored regions, and (3) provide a decision support tool to inform resource managers and restoration practitioners of the impacts each restoration effort has on habitat use by these species.
The five-year revision of the Gulf Sturgeon Recovery Plan highlighted the need to identify habitat parameters for GS estuarine feeding habitats, especially of western populations (Pearl and Pascagoula Rivers), which have been slower to recover than their eastern counterparts; it also renewed consideration for GS habitat restoration. Habitat-specific occupancy patterns for GS in estuaries are lacking, particularly for juveniles and sub-adults. Therefore, we will fill knowledge-gaps related to what actually constitutes suitable GS habitat by size-class. Mackerels (Spanish and King) and Red Drum may use the same habitats as GS, but during different seasons and in different ways (prey selection). These species likely benefit from compensatory restoration more than GS, but this has not been quantified.
Based on occupancy patterns of these species between restored and non-restored habitats (e.g., silty

NOAA Project ID#13172: This project will use multiple tracking technologies, as well as the Integrated Tracking of Aquatic Animals in the Gulf of Mexico network (iTAG-n) and research group (iTAG-r) to collect important data, difficult or impossible to assess with traditional capture-based methods. The focal species will be: yellowfin tuna (Thunnus albacares), greater amberjack (Seriola dumerili), cobia (Rachycentron canadum), red drum (Sciaenops oscellatus), gag grouper (Mycteroperca microlepis) and red snapper (Lutjanus campechanus). The DWH oil spill occurred in the northern GoM during the spring and summer of 2010, which would overlap in space and time with either the spawning or early life stages of these species. This is of special concern with water column pelagic spawners, as where and when they reproduce (i.e., spawn) and consequent dispersal dynamics affect offspring survival in ways not seen in most terrestrial species. In addition, larval cardiotoxicity is documented for several of these species, resulting in heart-related abnormalities that could impact long-term stock productivity, especially in stocks already highly impacted by fishing and anthropogenic stressors. All focal species support important fisheries and are considered overfished, have decreasing landings or stock assessment scientists or fishermen are concerned about the stocks' health. Specific concerns associated with the focal species include: (1) yellowfin tuna landings are decreasing and deepwater oil rigs may change natural migratory behavior and spawning site selection and consequently reproductive success; (2) the greater amberjack stock is overfished and not rebuilding as expected, and there is a need to better understand how artificial reefs affect spawning site selection and fidelity; (3) the recent cobia stock assessment was inconclusive due an incomplete understanding of stock structure and connectivity and fishermen are expressing concern at low catch levels; (4) red drum were affected locally by the oil spill demonstrating anemia and presumed decreased fitness and impaired reproduction but we do not have the needed understanding of spawning migrations and connectivity to assess how this would impact the Gulfwide stock; and (5) both

NOAA Project ID#13569: The goal of the project is to reduce sea turtle injury and mortality from exposure to and entanglement in discarded or lost recreational fishing gear.Sea turtle exposure to, and entanglement in, discarded or lost recreational fishing gear, such as monofilament line and cast net material, is an important, and growing problem. This project idea includes the following: 1) Identify problem "hotspots"•for sea turtle entanglement at state and regional levels across the Gulf of Mexico. Project locations would be selected and prioritized based on intensity of use for recreational fishing, known co-location with sea turtles (e.g., foraging areas), and frequency of entanglement/ingestion-related strandings. Based on location-specific patterns of entanglements and/or entanglement risk, determine priority management needs for each hotspot. 2) Reduce the number of, and potential for, entanglement incidents at identified hotspots through a suite of possible techniques, including site clean-ups (recovery of gear and debris from hot spot areas), increasing proper monofilament disposal areas, reduction of the amount of monofilament from waterways, especially in key sea turtle nesting and foraging areas,

NOAA Project ID# 13392: The proposed project seeks to better understand the physiological mechanism that resulted in spontaneous abortions of small cetaceans after the Deep Water Horizon event. The project will require access to archived tissues from stranded cetaceans. The lab analyses will include analysis of disease causing pathogens as well as baseline measurements of the endocrine and body composition of

Mississippi Gulf Coast Community College (MGCCC) seeks to work with interested partners in the development and implementation of an Unmanned Maritime Systems Technology Program to support businesses and industries that directly support the unique environmental and ecosystem structures of the coastal geography and the Northern Gulf of Mexico. The program will be located in Jackson County, Mississippi on the Jackson County Campus (JC) of MGCCC and will complement the existing career and technical programs on campus, a thriving local maritime industry, and a growing scientific community. The proposal herein will not be static and will be informed by and updated as directed by current coastal efforts associated with unmanned maritime systems, inclusive of the work of the Governor's Ocean Task Force.

MGCCC's Unmanned Maritime Systems Technology Program will be a technical education program that will provide students with the opportunity to become employed in a growing industry. Information provided by the Duke Center on Globalization, Governance and Competitiveness indicates that the industry is a $156.9 million-dollar industry that is growing at a rate of 13.8% annually. The program will contain classroom, lab based, and field-based instruction and will seek out industry and university partnerships in support of the program. Courses will focus on systems IT, systems maintenance, systems operations, systems security, systems manufacturing, systems usage, troubleshooting, and the industry in general.

The program location will be on the college's Jackson County Campus (JC). The campus is located in Gautier, Mississippi; logistically accessible from both Interstate 10 and Highway 90. The location makes it feasible for on-site programs to serve Mississippi's coast and the region beyond. Programmatically, the campus is home to academic transfer programs, workforce training programs, career, and technical programs. Programs such as programs in electronics, instrumentation and controls, systems-based electronics, and automation are complimentary programs to an Unmanned Maritime Systems Technology program. Additionally, JC is home to the college's Estuarine Education Center (EEC); a 40+ acre

The Mississippi Commercial Fisheries United, Inc. proposes for funding an oyster shell recycling program that engages Mississippi restaurants, oyster processors, and the general public to establish a recycling program that provides free oyster shell pickup, training, and drop-off locations to recycling otherwise discarded oyster shells. Oyster shells are the preferred cultch material for oyster reef restoration but due to their limited supply has been used minimally in recent restoration efforts. Alternative cultch materials have thus far proven to be largely ineffective at restoring oyster reefs in the Mississippi Sound.

Funds for this project would include the procurement and management for necessary collection materials, transportation vehicles, employees, land for shell staging, and heavy equipment for shell sanitation.

The Mississippi Commercial Fisheries United, Inc. proposes for funding a Mississippi Reef Fish Community Permit/ Quota Bank. Mississippi is the most under served state in the commercial Gulf reef fish fishery. Mississippi has the least amount of Gulf reef fish permit holders and individual fishing quota shareholders. This project would help to increase commercial access to reef fish species such as red snapper; a variety of groupers; a variety of tilefish; and various other fish species that require a federal Gulf reef fish permit to harvest commercially. This program would also help to reduce dead discards in the reef fish fishery by providing the needed quota to harvest fish that would otherwise have to be discarded at sea.

This project would greatly benefit Mississippi's coastal economy by increasing access and landings for several species of reef fish. Mississippi's commercial fishermen, seafood dealers, seafood markets, and

The Mississippi Commercial Fisheries United, Inc. proposes for funding a Mississippi Seafood Traceability and Tagging Program. This program would provide an electronic platform (i.e.; smart phone, tablet, and computer) and physical tags for commercial fishermen to improve domestic seafood traceability and help to eliminate fraud in the seafood industry. The need for this program arises from the prevalence of illegal and unreported seafood sales that undercurrent honest and legal seafood harvesters and businesses.

This program would provide electronic reporting and tagging capabilities for commercially harvested marine species such as speckled trout, red fish, flounder, shrimp, blue crabs, and oysters. Similar programs have been implemented in federal fisheries with great success. In addition to eliminating fraud

The Mississippi Commercial Fisheries United, Inc. proposes for funding a Mississippi Off-Bottom Oyster Aquaculture Advancement & Investment Program. Off-bottom oyster aquaculture has been proven successful in surrounding states and is currently pending permit approval in Mississippi territorial waters. This program would help establish a cooperative for potential off-bottom oyster farmers and investment capital to help jump start the off-bottom oyster aquaculture industry in Mississippi. The program would also help to increase Mississippi overall oyster production and provide stimulus to Mississippi's coastal economy.

Currently, obtaining sufficient investment capital is a barrier to entry in the off-bottom oyster aquaculture

The Mississippi Commercial Fisheries United, Inc. proposes funding for a Sea Turtle Conservation and Mississippi Shrimp Trawl Vessel Electronic Monitoring Program. This program would initially target skimmer trawl shrimping vessels that are currently not required to use Turtle Excluder Devices (TEDs) but must adhere to tow time regulations that limit the length of the tow times to 55 minutes or 75 minutes depending on the time of the year. A pending NOAA rule has been promulgated that would require skimmer trawl vessels to use TEDs has stalled. Therefore, this program proposes a viable alternative to the use of TEDs in skimmer trawls.

This program proposes funding to establish a voluntary incentive based program for Mississippi shrimpers to implement and use electronic data loggers in the cod end of shrimp nets. This data logger is water resistant and records water level data to determine when a net is submerged in water and for how long. This data would give an accurate representation of shrimp vessels adherence to tow times. These data logging units can transmit the recorded data via Bluetooth technology or be downloaded through

The Mississippi Commercial Fisheries United, Inc. proposes funding for the establishment of a Mississippi Shrimp Industry Task Force. The purpose of the task force (advisory panel) is to engage stakeholders throughout the shrimp industry to bring forth ideas and recommendations to implement sustainability projects and management measures. Mississippi currently does not have a shrimp industry task force. The task force would not have any regulatory power and would only be able to provide recommendations to the proper state and/ or federal governing bodies.

This program request funds to conduct meetings, outreach, and procure certain equipment necessary to fulfill the objectives of the task force. Funds would be used to secure meeting venues; appoint and

The Mississippi Commercial Fisheries United, Inc. proposes funding for the establishment of a Mississippi Fin-fish Industry Task Force. The purpose of the task force (advisory panel) is to engage stakeholders throughout the fin-fish industry to bring forth ideas and recommendations to implement sustainability projects and management measures. Mississippi currently does not have a fin-fish industry task force. The task force would not have any regulatory power and would only be able to provide recommendations to the proper state and/ or federal governing bodies. This task force would include representation from the recreational, commercial, and for-hire sectors that are engaged in the harvest of fin-fish species including but not limited to speckled trout, red fish, flounder, menhaden, reef fish, and tuna.

The Mississippi Commercial Fisheries United, Inc. proposes funding for the establishment of a Mississippi Oyster Industry Task Force. The purpose of the task force (advisory panel) is to engage stakeholders throughout the oyster industry to bring forth ideas and recommendations to implement sustainability projects and management measures. Mississippi currently does not have an oyster industry task force. The Governor's oyster task force formed in 2014 but no longer convenes due to a lack of funding. The task force would not have any regulatory power and would only be able to provide recommendations to the proper state and/ or federal governing bodies.

This program request funds to conduct meetings, outreach, and procure certain equipment necessary to

The Mississippi Commercial Fisheries United, Inc. proposes the Mississippi Derelict Marine Debris and Trap Removal Incentive Program. Similar programs have proven to be successful in removing marine debris and derelict crab traps throughout the Mississippi Sound. The difference in this program and previous program is that this program proposes to utilize both commercial trappers and commercial shrimpers to remove and properly dispose of marine debris and derelict crab/ lobster traps. Commercial shrimpers often encounter derelict crab traps in the inshore waters of the Mississippi Sound and lobster/ lionfish traps in the Gulf of Mexico. Marine debris is ongoing probably annually due to tropical storms and hurricanes.

This program seeks to incentivize the proper disposal of marine debris and derelict traps that are incidentally caught to help reduce the overall mass of marine debris in the Gulf of Mexico and coastal

This proposal is for the funding of an Outdoor Open-Air Amphitheatre adjacent to or near the Bay St. Louis Municipal Harbor for the City of Bay St. Louis. Potential uses for the proposed Amphitheater include but are not limited to hosting musical acts, town meetings, plays, educational presentations, movie nights, fishing tournaments etc. It will also support existing events hosted by the City such as Cruising, Harbor Fest Bridge Fest Crab Fest and others.

The U.S. Shrimp processing industry is located in the five Gulf States region. While processors are shrinking in number, Mississippi's six processors have increased their share of the domestic shrimp processing market, processing approximately 30 million pounds of shrimp each year compared to Mississippi's 6 million pound annual catch, a crucial part of the Blue Economy, both economically and environmentally.

Processors are the crucial first link in the supply chain that delivers fishermen's harvests to the U.S. market through retail distribution, food suppliers and restaurants. Shrimp processed in Mississippi have a $100 million value when exported from Mississippi into the supply chain, a significant value-added industry, with significant economic impact on the state of Mississippi. Mississippi processors provide 2,300 jobs to the state of Mississippi, directly and indirectly. Jobs directly attributed to processing hit a post-Katrina high in 2015, more than 1600 "even in light of direct processing jobs in Gulf states shrinking from 14,000 to 11,000 in the same time period. And, while the number of Mississippi processing jobs has fluctuated since 2006 due to natural and man-made catastrophes, it has bucked the national trends, growing when the U.S. number of processing jobs was in decline. Mississippi's ability to grow this industry's output, and economic impact in a stagnant / shrinking national industry demonstrates that with strategic investment in innovation, growth has occurred and can continue in the future.

For more than a decade, Americans have consumed more shrimp than any other type of seafood, and the amount of shrimp that Americans are consuming continues to rise. In fact, in 2017, Americans ate an average of 4.4 pounds of shrimp per person, compared to 4.1 pounds in 2009. And 4.1 pounds of shrimp per person is nearly twice the per-capita consumption in 1990.

Wild shrimp harvesting and processing are heritage industries of the Mississippi Gulf Coast, inextricably tied to our past, but that can be preserved and sustained for the future with the proper strategic investments. Mississippi's six processors have demonstrated resilience and innovation in the face of

The MS Department of Marine Resources is required by state statute to market seafood caught in the Gulf of Mexico and the Mississippi Sound. The agency's primary responsibility is to promote the sale and use of wild-caught Gulf seafood to consumers, dealers, processors and restaurant owners/chefs. MS Seafood is a program within the Department of Marine Resources and reaches out to various user groups in a variety of ways. The program sponsors seafood festivals, cooking events and contests in order to educate the public and users of the importance of purchasing, selling and consuming wild-caught Gulf seafood. These events are held throughout the state of Mississippi and in the Southeast region. When

This project will be based on the addition of two fully equipped greenhouses at Ocean Springs High school. By adding these new greenhouses, Ocean Spring High School (OSHS) will be able to increase the number of students who take aquaculture classes at OSHS, and it will also successfully maintain the program for 3-4 years. This past year, 89 students signed up to take Aquaculture. At the current size, full capacity is 36 students (18 per class) and 18 students for aquaculture 2 classes. The addition of two new greenhouses would give each class its own building. This would increase class sizes from 18 students to 25 students in each class for a total of 75 students per year. These students will be trained and graduate with work force skills in aquaculture, water quality, and any marine fisheries job that may become available. The program also focuses on eco-restoration. In the past, the program has raised, oysters, blue

The Land Trust for the Mississippi Coastal Plain (LTMCP) is an accredited Land Trust dedicated to the conservation, promotion, and protection of open spaces and green places of ecological, cultural, or scenic significance in the counties of the Mississippi Coastal Plain. LTMCP utilizes both fee simple and conservation easement tools in conserving land for the benefit of habitats, species, and recreation. These parcels consist of approximately 6 acres of forested shrub wetland, and 2.89 acres of estuarine and marine wetland habitat that borders both sides of the Tchoutacabouffa River. Protection of these upstream lands is vital to the water quality and erosion control downriver and into the Mississippi sound. LTMCP protects and manages 49.71 acres adjacent to the Cedar Lake Island Land Protection project. Ecological Value: Protects properties as a buffer area for storm surge by providing dispersal and displacement in the event of flooding waters. These flooding waters have a natural function of turnover and flushing of

The Land Trust for the Mississippi Coastal Plain (LTMCP) is an accredited Land Trust dedicated to the conservation, promotion, and protection of open spaces and green places of ecological, cultural, or scenic significance in the counties of the Mississippi Coastal Plain. LTMCP utilizes both fee simple and conservation easement tools in conserving land for the benefit of habitats, species, and recreation. This parcel consists of approximately 26.8 acres of freshwater forested wetland, 1.35 acres freshwater pond, 5.24 acres of riverine habitat, and 6.6 acres of forested evergreen upland habitat. Bayou Costapia and Tuxachanie Creek meet the Tchoutacabouffa River at this parcel. Also, LTMCP manages and protects a total of 206 acres directly adjacent to this property along the Tchoutacabouffa River including the Tchoutacabouffa Nature Preserve. Protection of these upstream lands is vital to the water quality and erosion control downriver and into the Mississippi sound. With the acquisition of this parcel, LTMCP would create a corridor of conservation lands 2.1 miles long along the Tchoutacabouffa River. Ecological Value: Protects properties as a buffer area for storm surge by providing dispersal and displacement in the event of flooding waters. These flooding waters have a natural function of turnover

The MS Urban Forest Council developed a project in 1995 with EPA, creating a program to help people learn about careers in the green industry and provide job training opportunities in regard to natural resources such as landscaping, trees, food plants, growing food, land maintenance, cut flowers, and other "green jobs." The program was called 'Ribbons of Green Career and Job Training.'

We are proposing this project to assist in restoring the MS Gulf Coast from injury of natural resources but also to provided valuable job training and career development. Many people are not aware of the many opportunities working with natural resources.

Natural Resource Job Training and Small Business Incubator

The project will include job training in the classroom and training on sites. Site for training will be identified based on topic of training, location of participants and relative to the topics.

This community garden and farming space is the perfect location for a job training and small business incubator center. Not only will this project provide real-time economic opportunities to the trainees; it will also help develop and revive the surrounding communities, while rebuilding and growing the green industry along the MS Gulf coast.

This project would create training programs that satisfy needs of employers in the state.

The following programs would be implemented: Job training and certification as a trained individual would be provided for each of these topics. Individuals participating will complete the whole training program. Trainers will provided assistance in obtaining jobs in these areas of service or be trained to develop their own company to provide these service areas.

This effort seeks to permanently protect lands identified by the U. S. Fish and Wildlife Service and the State of
Mississippi as critical for acquisition and long-term management by the Grand Bay National Wildlife Refuge (NWR) and Grand Bay National Estuarine Research Reserve (NERR). This project will add approximately 1,686 acres to the nearly 18,000 acres currently owned by the U.S. Fish and Wildlife Service and the State of Mississippi. It will add critical coastal lands to the Grand Bay NWR/ NERR for permanent protection, and improved management of coastal wetlands, and adjacent upland areas. The Grand Bay NWR/NERR protect one of the last expanses of wet pine savanna habitat in the country. Due to fire suppression and conversion to pine plantation, less than 5% of the original acreage of this habitat system remains- making it one of the most endangered ecosystems in the country. Because of the great biological significance of this area, it is important to continue to expand the protection of both core and buffer areas, while enhancing management capabilities. The targeted 1,686 +/- acres consists of wet pine savanna, maritime forest, tidal and non-tidal wetlands, salt marshes, salt pannes, bays and bayous.

The Land Trust for the Mississippi Coastal Plain (LTMCP) is a nationally accredited Land Trust dedicated to the conservation, promotion, and protection of open spaces and green places of ecological significance in Hancock, Harrison, Jackson, George, Stone, and Pearl River Counties of the Mississippi Coastal Plain. LTMCP utilizes both fee simple and conservation easement tools to target priority conservation lands for the benefit of coastal Mississippi habitats, species, and recreation.

The goal of this project is to provide funding to purchase individual parcels of land, which may be relatively small in acreage but are located in areas that have been identified as crucial to extending corridors of existing conservation lands. The Land Trust has identified several sites that would expand key conservation corridors presently owned by LTMCP, the Mississippi Secretary of State's Office, as well as the Mississippi Department for Marine Resources. These sites can be found on the Mississippi Department of Environmental Quality's portal (www.restore.ms): project numbers 5436 Brickyard Bayou Land Protection, adjacent to the Pascagoula River Coastal Preserves owned by MDMR; 5788 Cedar Lake Island Land Protection, adjacent to the LTMCP Cedar Lake Island Preserve; and 5790 Tchoutacabouffa River Land Protection, adjacent to LTMCP Tchoutacabouffa Nature Preserve. Protection of these upstream lands is vital to the water quality and erosion control downriver and into the Mississippi Sound.

Ecological Value:

Kittiwake Conservation has been able to identify some acreage in Pass Christian that appears suitable for coastal preservation. This property was partially used as part of the Camp Kittiwake, a church camp used into the 1950's, then partially developed as a residential subdivision, Kittiwake, and for the Kittiwake Baptist Church. The remaining 12 acres has laid fallow for the past 50 years.

Our neighborhood group, loosely organized as Kittiwake Conservation, see the area being retained for its natural features; its vegetation and wildlife, while adjacent to the sand beach. The area presents itself as an area where local runoff can be filtered naturally prior to reaching the Sound, reducing the number of beach closures in the area after heavy rainfall. Presently, the acreage is semi-wetland forest, and the home to herons, eagles, osprey, fox, bobcat, racoon, armadillo and rabbits.

This property (11.8 acres) was recently purchased by an individual in 2017, and has expressed some interest in allowing the acreage to be used as a park, a wildlife preserve, a conservation area, and appears willing to part with the land for such uses.

Across US 90 is the sand beach. This area has often been "closed" due to high bacterial count, particularly after heavy rainfall. This tract of land could be used to develop a series of "swales"•to naturally filter the surface water of sediment and pollutants prior to reaching the Sound, and some existing underground water routes could be rerouted into the same system of swales.

There are few intact land parcels available along Beach Boulevard that have not been through development, especially over the past 50 years. This is a parcel that has been neglected and allowed to become its own wildland. With minimal development it could become its own show piece of what upland areas would have looked like prior to significant development. A trail meandering through from Second Street to Beach Boulevard might be the extent of developing the area. A parking area on each

NOAA Project ID# 13891: Expansion of a Coastwide Reference Monitoring System (CRMS) wetland observation network into Mississippi to inform wetland restoration success and also assist with Trustee ecosystem restoration quantification. The proposed project would build off of the existing CRMS wetland monitoring system being implemented in Louisiana. In Louisiana CRMS was designed to monitor the effectiveness of restoration actions at multiple spatial scales from individual project sites and the influence of these projects throughout the coastal zone. The LA CRMS design includes sites for swamp habitats along with fresh intermediate, brackish and salt marshes. This project could be implemented for swamp and marsh or only marsh if needed depending on the need. The following data types are proposed record land change, hydrologic, soils and vegetation including aerial imagery,

NOAA Project ID#13889: The Long Beach Harbor serves mainly recreational boaters. However, that recreational use is the basis for a robust business community that serves tourists, fishermen, boat owners, restaurant diners, and pedestrians. The Harbor has been repeatedly damaged by natural (Hurricane Katrina) and man-made (BP Oil Spill) disasters. The natural disasters have destroyed and damaged the harbors channel, breakwaters, and support infrastructure (gas lines, power, etc.). The BP Oil Spill damaged many boats docked in the harbor and made tenants less likely to dock in the harbor. These

NOAA Project ID# 13883: As resource managers continue to understand the effects of water availability and quality from freshwater systems that drain to Gulf estuaries and bays, one source that is typically unaccounted for comes from submarine outcrops from near-shore aquifers. The USGS has recently updated the Coastal Lowlands Aquifer System (CLAS) groundwater model which can be used to estimate groundwater flow and quantify estimates of water quality/nutrient loads from submarine discharges. Specifically, this project will utilize the updated CLAS model to address groundwater and groundwater/surface-water issues along the Gulf coast to: 1. develop an approximate water budget of groundwater flow to/from the coast; 2. evaluate subsidence related to groundwater withdrawals; 3. evaluate changes in groundwater withdrawals and effects on water budget and water levels which can be used to evaluate scenarios related to increases in GW withdrawals for public-supply, industrial, and irrigation water use; 4. evaluate potential saltwater intrusion; and 5. use groundwater flow quantities and water chemistry data to estimate nutrient loads into Gulf estuaries from submarine waters sources (which

NOAA Project ID# 13877: This project will build an online Decision Support System (DSS) that will allow managers to run scenarios by altering identified sources of nutrients or sediment within Gulf watersheds to see the downstream effects of those scenarios on nutrient and sediment loads entering bays and estuaries across the Gulf. The DSS will be based on development of Total Nitrogen, Total Phosphorus, and Suspended Sediment Spatially-Referenced Regressions on Watershed Attributes (SPARROW) models for the entire Gulf. In addition, display of model results in the DSS can help managers target watershed areas with high nutrient loads to better locate Best Management Practice implementation. Nutrient load estimates from the models entering bays and estuaries can also be used as

NOAA Project ID# 13873: The impact of habitat loss on shorebirds may be exacerbated by disturbance from human recreational use, which further reduces the amount of coastal habitat that is functionally available. This can have consequences for the condition of individual birds or for population processes, both of which should be considered in strategies to reduce conflict between shorebirds and recreational users of coastal habitat. Our objectives were to implement measures to mitigate the negative impacts from human recreational use, coastal habitat modifications to Piping Plover (Charadrius melodus) body condition and demography. Also applies to additional overwintering bird species. The condition of these

NOAA Project ID# 13868Summary of rationale and proposed project: Nearly half of North American shorebird species (such as sandpipers and plovers) are declining, and a key factor in these declines is a loss of available habitat for migration stopover, especially in fall (July-October) when such habitat is more limited. To mitigate the impact of the Deepwater Horizon oil spill on this group of birds, we need high-quality stopover habitat for them not just on the immediate Gulf Coast, but also away from the Gulf Coast, in the MS Delta. Private lands, including aquaculture farms and former aquaculture farms being managed for duck hunting, and also active agricultural fields, can provide high-quality stopover habitat for migratory shorebirds. Groundwater is an increasingly valuable and limited resource in the MS Delta, so groundwater-neutral strategies for such wildlife habitat creation are needed. We will work with private landowners to provide high-quality, groundwater-neutral stopover habitat for migratory shorebirds in the MS Delta. Goal 1: Create 600 hectares of fall habitat for migrating shorebirds on private lands in the MS Delta, which has been estimated to be necessary to support the number of birds typically migrating through our region. Goal 2: Demonstrate the viability of ground-water neutral strategies for creating shorebird habitat, including use of surface water sources, lateral pumping, water storage, and drop-fill pumping strategies. Goal 3: Engage a diverse suite of private landowners and establish the desire for long-term voluntary implementation of these practices. Estimated Cost: $200,000 per year We have begun to build towards these goals by developing a network of partnerships with farmers and waterfowl

There is an approved RESTORE Act-funded Gulf-wide river flow study that will use a Mississippi coastal plain stream as a study site. It is currently being planned by the USGS Gulf Water Science Center in Nashville, with Rodney Knight as the principal investigator. This study needs to either focus on the Pearl River or model both the Pearl and the Pascagoula rivers with the OASIS modeling program for regulated rivers.

The following three questions have been posed for investigation using OASIS, a powerful modeling framework:
1) How far downstream can a dam's disruption to flow be detected?
2) How sensitive are the fresh water needs of the estuary to upstream damming?
3) Can the coastal waters be so distant from a dam's influence on the river that it can't be detected?

With the current plans to add more low head dams/weirs and a new impoundment on the Pearl River in Jackson, Ms in the name of flood control, these three questions need to be answered for the Pearl before more structures are placed on it. If the best river scientists in the U.S. cannot answer these questions about the Pearl River, further damming is not justifiable.

In a phone conversation with the USGS principal investigator, he said that there is no reason both rivers could not be investigated. The environmental data set on the Pascagoula may be a bit better than that of the Pearl, but beyond this and affordability under the budget, there isn't a reason that OASIS couldn't be

Health assessments are used to identify and understand population stressors, mitigate their effects, or plan more effective conservation measures, in response to management drivers (e.g., MMPA, ESA, NOAA's Ocean and Human Health initiative, and, more recently, for Natural Resource Damage Assessments "• NRDAs).

Capture"•release health assessments involve large teams of researchers using multiple vessels to locate, capture, assess, and release wild bottlenose dolphins. A large net is used to encircle one or more dolphins in shallow water. The team then enters the water and once the dolphin is disentangled from the net and restrained, blood is collected and vital signs are assessed. The dolphin is then brought up onto a specially designed platform on a boat for further examination and the collection of morphometrics, diagnostics, and biological samples. Samples are processed on the boat for timeliness and quality control purposes.

Standard morphometrics and diagnostics include a physical exam, body measurements (length and girth), ultrasound to assess reproductive status and blubbler thickness, complete blood count (CBC)/blood chemistry/blood gases, serology, pathogens, endocrinology, immunology, urinalysis, skin and oral assessment, biotoxin and contaminant measures, and blowhole and genital swabs. Most of these diagnostics can only be obtained from wild dolphins through capture and brief restraint. Health assessments conducted on bottlenose dolphins in the Southeast have used standardized protocols and established laboratories for sample analysis. The pooling of available samples has resulted in the establishment of reference intervals for many health parameters, such as CBC, serum chemistry, mass:length ratio, and also baseline levels for biotoxins, persistent organic pollutants (POPs) including polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), and a suite of organochlorine pesticides.

Health assessments have been conducted on bottlenose dolphin populations in various locations in the Gulf, including Sarasota Bay, Florida (1987"•present), Mississippi Sound, Mississippi (1982"•83, 2013,

Photo-identification studies are a type of capture-mark-recapture study used to detect known (marked) and unknown individuals over time to estimate population size and vital rates. They are also used to provide information on distribution, seasonal movements, habitat use, behavior, and body condition and
health of individuals. Information gained from multi-year photo-identification studies would be an indicator of the effectiveness of efforts to restore bottlenose dolphin populations in waters most heavily impacted by the Deepwater Horizon oil spill, including Barataria Bay, Mississippi Delta, Mississippi Sound, and adjacent coastal waters.

Centralized large-scale, collaborative photo-identification catalogs for bottlenose dolphins and other species have been established (e.g., the Gulf of Mexico Dolphin Identification System, or GoMDIS), providing a basis for tracking movements of individual animals beyond project study sites and detecting range shifts in response to environmental changes. Existing data systems need to be assessed, refined, and expanded to facilitate upload and analysis of a large number images and to improve data access and sharing by a diverse group of field researchers and partner organizations in Mississippi and throughout the Gulf to better determine connectivity and movements of bottlenose dolphins within and between adjacent water bodies. Periodic workshops are needed to ensure standardized methods for image acquisition and processing are being used and revised as necessary. Multi-year studies need to be expanded to include additional study areas in Mississippi and across the Gulf, particularly coastal and offshore areas affected by the oil spill. Further research is needed on: (1) the development of software to enable more effective and timely analysis and comparison of still and video images, (2) the potential for high-resolution aerial imaging systems to augment or replace traditional aerial and/or vessel surveys, and (3) the use of unoccupied aircraft systems (UASs) or drones to collect images of marine mammals independently or during traditional vessel surveys or other surveillance operations.

Budget is variable depending on the frequency of assessments and the duration of the project. Studies are

In undeveloped areas of the coast, rain is intercepted by trees and the rest soaks into the ground, filtering out pollution. But on the developed coast, buildings, parking lots, roads, and other impervious surfaces, trees and soil no longer slow the rainfall and filter the water. The resulting stormwater instead picks up nitrogen and phosphorus pollutants. It flows rapidly into bayous, beaches, and Mississippi Sound via storm drains. The results include beach closures, oyster contamination, and fish kills.

Improve water quality by reducing nutrient loads to coastal watersheds. Develop conservation plans on agricultural land and rural communities that support them to address nutrient and sediment runoff; and implement conservation practices identified in the conservation plans.

The primary goal for this project is to improve water quality through nutrient and sediment reduction. The health of the Gulf of Mexico depends upon the health of its estuaries, and the health of those coastal waters is influenced by land uses in the watersheds of its tributaries. In the five Gulf States, over 80 percent of the acreage is in private ownership (USDA-NRCS 2014) and is used for forestry and agriculture. This watershed-scale project restores water quality impacted by the DWH oil spill by reducing nutrients and the sediments carrying them into coastal waters. Runoff from cropland, pasture, grassland, forest, urban areas contributes nutrients and sediments that adversely affect the health of coastal waters of the Gulf. While agricultural lands are a contributor (and in many instances, not the leading contributors) of nutrients to coastal waters, there are opportunities to address nutrient related resource concerns at their sources across multiple landuses in the lower Pascagoula River watershed.

USDA will provide outreach and technical assistance to voluntary participants -- especially on the most

Nearshore and coastal habitats throughout the Gulf of Mexico are adjacent to areas of high human population. The high degree of overlap with human activities results in concern for both bottlenose dolphins that were also affected by the Deepwater Horizon oil spill. There are documented impacts on bottlenose dolphins from recreational fishing, boating, and tourism, including mortalities, injuries and harassment/disturbance. Harmful interactions between people and dolphins have been documented throughout the Gulf of Mexico, including in Mississippi coastal waters. Such interactions can be damaging to the dolphins by altering their natural behavior, and can put both humans and dolphins at risk of illness, injury, and death. The large variety of user groups and stakeholders and multiple management jurisdictions involved in such interactions requires a coordinated effort among state and federal biologists, managers, and enforcement agencies.

Human activities of concern for bottlenose dolphins include"”

"¢Recreational fisheries - Interactions stem from entanglement in or ingestion of active or discarded fishing gear, depredation on bait or catch, scavenging of released fish, habitat degradation, and provisioning of animals. They can also stem from retaliation or lethal deterrence by fishermen for depredation on bait or catch. Acute and chronic impacts include altered behavior, decreased nutritional status, injury, and mortality.

"¢Tourism and recreational activities - Interactions occur with recreational boaters, jet skis, dolphin and whale watching tour boats (particularly those operating irresponsibly by touching, feeding, swimming with, or harassing animals), and include boat strikes, disruption of natural behaviors, changes in group composition, association of people/boats with food if provisioning occurs, and conditioning. Long-term avoidance of high-use areas can lead to localized declines in abundance or shifts in habitat use to sub-optimal habitat. Acute and chronic impacts include altered behavior, decreased nutritional status and growth rate, injury, and mortality.

In undeveloped areas of the coast, rain is intercepted by trees and the rest soaks into the ground, filtering out pollution. But on the developed coast, buildings, parking lots, roads, and other impervious surfaces, trees and soil no longer slow the rainfall and filter the water. The resulting stormwater instead picks up nitrogen and phosphorus pollutants. It flows rapidly into bayous, beaches, Biloxi Bay, and Mississippi Sound via storm drains. The results include beach closures, oyster contamination, and fish kills.

Marine mammal bycatch refers to any marine mammal adversely affected as a result of being unintentionally entangled, entrapped, ensnared, or caught by nets, lines, traps, or hooks, or otherwise impacted by fishing gear. Bycatch is the greatest direct cause of marine mammal injury and death in the United States and around the world. Reducing marine mammal bycatch in Gulf of Mexico commercial and recreational fisheries is one of the strategies identified by the Natural Resource Damage Assessment Trustees to restore marine mammals injured as a result of the Deepwater Horizon oil spill. Marine mammals injured by the spill and/or response activities in the Gulf include bottlenose dolphins (all stocks), Atlantic spotted dolphins, Bryde's whales, pantropical spotted dolphins, pygmy sperm whales, Risso's dolphins, and short-finned pilot whales.

Observer coverage to document and quantify fisheries interactions with marine mammals is limited, but based on best available information, the National Marine Fisheries Service (NMFS) has identified the following Gulf of Mexico fisheries as having frequent or occasional bycatch of marine mammals: shrimp trawl, menhaden purse seine, coastal gillnet, pelagic longline, trap/pot, and charter boat/headboat fisheries. There are also documented interactions between bottlenose dolphins and recreational hook-and-line fisheries. Reducing bycatch in commercial and recreational fisheries operating in and adjacent to Mississippi state waters can aid directly in the restoration of bottlenose dolphins and other marine mammal stocks injured by the oil spill.

Effort is needed in the following areas:

"¢Increased levels of observer coverage on the above-mentioned fisheries/gear types/target species (particularly the shrimp trawl and gillnet fisheries) to provide better estimates of marine mammals injured or killed incidental to commercial fishing activities. Expanded observer coverage would also provide additional information needed by managers to determine factors associated with bycatch, such as gear type, time of day, bait type, fishing methods, areas fished, etc., and to identify, test, and implement

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This project requests sufficient long-term resources for the designated Marine Mammal Health and Stranding Response Program (MMHSRP) network member in Mississippi to monitor the effectiveness of restoration efforts through enhanced surveillance, response, investigation, and, where possible, recovery and rehabilitation of stranded marine mammals from populations in Mississippi nearshore and offshore waters that were directly impacted by the Deepwater Horizon (DWH) oil spill. Nearly every population of marine mammals that inhabits the nearshore and offshore waters of Mississippi suffered quantifiable injuries due to the Deepwater Horizon oil spill. Response to both live and dead stranded marine mammals and the collection of biological information from these animals is critical to obtaining an understanding of natural and human-caused factors that are either contributing to or impeding the restoration of DWH-impacted populations.

The MMHSRP network member that has been designated by the National Marine Fisheries Service (NMFS) to conduct stranding response activities in Mississippi, in accordance with the requirements of the Marine Mammal Protection Act, is the Institute for Marine Mammal Studies (IMMS) in Gulfport, MS. IMMS has several highly-trained and experienced stranding responders on-staff, with access to technicians, veterinarians, pathologists, and other specialists as needed to provide effective medical and forensic response during and after a stranding event.

Prior to the spill, stranding response efforts were patchy and inconsistent in many portions of the Gulf region. Response capabilities increased during the spill with funding from the Natural Resource Damage Assessment (NRDA) and IMMS was instrumental in ensuring timely response and collection of biological samples from animals in Mississippi and Alabama. However, long-term, consistent funding is needed in Mississippi and across the Gulf to monitor the effectiveness of NRDA-directed restoration efforts and to provide an ongoing assessment of injuries that may continue to be associated with oil spill response or restoration activities. Institutional funding is variable but generally inadequate to provide the level of response needed. Limited expertise throughout the Gulf in marine mammal response,

Improve water quality by reducing nutrient loads to coastal watersheds. Develop conservation plans on agricultural land and rural communities that support them to address nutrient and sediment runoff; and implement conservation practices identified in the conservation plans.

The primary goal for this project is to improve water quality through nutrient and sediment reduction. The health of the Gulf of Mexico depends upon the health of its estuaries, and the health of those coastal waters is influenced by land uses in the watersheds of its tributaries. In the five Gulf States, over 80 percent of the acreage is in private ownership (USDA-NRCS 2014) and is used for forestry and agriculture. This watershed-scale project restores water quality impacted by the DWH oil spill by reducing nutrients and the sediments carrying them into coastal waters. Runoff from cropland, pasture, grassland, forest, urban areas contributes nutrients and sediments that adversely affect the health of coastal waters of the Gulf. While agricultural lands are a contributor (and in many instances, not the leading contributors) of nutrients to coastal waters, there are opportunities to address nutrient related resource concerns at their sources across multiple landuses in the Middle Escatawpa River watershed.

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Health assessments are used to identify and understand population stressors, mitigate their effects, or plan more effective conservation measures, in response to management drivers (e.g., MMPA, ESA, NOAA's Ocean and Human Health initiative, and, more recently, for Natural Resource Damage Assessments "• NRDAs).

Capture"•release health assessments involve large teams of researchers using multiple vessels to locate, capture, assess, and release wild bottlenose dolphins. A large net is used to encircle one or more dolphins in shallow water. The team then enters the water and once the dolphin is disentangled from the net and restrained, blood is collected and vital signs are assessed. The dolphin is then brought up onto a specially designed platform on a boat for further examination and the collection of morphometrics, diagnostics, and biological samples. Samples are processed on the boat for timeliness and quality control purposes.

Standard morphometrics and diagnostics include a physical exam, body measurements (length and girth), ultrasound to assess reproductive status and blubbler thickness, complete blood count (CBC)/blood chemistry/blood gases, serology, pathogens, endocrinology, immunology, urinalysis, skin and oral assessment, biotoxin and contaminant measures, and blowhole and genital swabs. Most of these diagnostics can only be obtained from wild dolphins through capture and brief restraint. Health assessments conducted on bottlenose dolphins in the Southeast have used standardized protocols and established laboratories for sample analysis. The pooling of available samples has resulted in the establishment of reference intervals for many health parameters, such as CBC, serum chemistry, mass:length ratio, and also baseline levels for biotoxins, persistent organic pollutants (POPs) including polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), and a suite of organochlorine pesticides.

Health assessments have been conducted on bottlenose dolphin populations in various locations in the Gulf, including Sarasota Bay, Florida (1987"•present), Mississippi Sound, Mississippi (1982"•83, 2013,

Introduction:
The shrimp fishery is the most valuable commercial fishery in the Gulf of Mexico with major cultural and economic impact on coastal communities. Several factors (e.g., fuel prices, shrimp imports, hurricanes, DWH spill) have impacted the viability of the shrimp fishery. Demand for sustainably produced seafood is increasing in the U.S. and greatly affects the market value of seafood. A common method to evaluate fisheries sustainability is the magnitude of the bycatch of marine mammals (MM) and sea turtles (ST) and efforts to avoid their bycatch. The shrimp fishery poses concerns for the conservation of MM/ST due to incidental capture (or bycatch) and reduction of MM/ST bycatch in this trawl fishery are restoration priorities (see PDARP/PEIS-Sections 5.5.10 and 5.5.11; Strategic Framework for MM and ST Restoration Activities). Regulations to limit bycatch in the shrimp fishery have long been in place (e.g. Turtle Excluder Devices or TEDs) and new measures continue to be proposed. However, limited observer coverage of the shrimp fishery (less than 1% of the fishing effort in the Gulf) and gaps in the data on the demographics and health of MM/ST populations (e.g., abundance, bycatch mortality, disease) complicates the evaluation of success of bycatch mitigation measures. These knowledge gaps and deficiencies impede the effective management of bycatch reduction of MM/ST populations in the shrimp fishery compromising the recovery of these protected species and the certification of this fishery as sustainable. This 5-year project proposes a group of activities that address knowledge gaps about the demographics of MMs and the health of STs, improve fishermen' awareness of the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) regulations pertaining to the shrimp fishery and provide new tools developed with input from stakeholders to evaluate the recovery potential of these populations under specific bycatch reduction scenarios. The use of the Management Strategy Evaluation (MSE) framework, widely used in managing fisheries and marine mammals, allows contrasting the benefits of different levels of survey effort and bycatch reduction measures to meet desired conservation and management objectives. This will be achieved through partnerships with all stakeholders (state & federal resource managers, fishing industry & communities, scientists, NGOs) and an interdisciplinary approach grounded in the principle that fishermen are active participants in the development of the

NOAA Project ID# 13913 The aim of this project is to restore sea turtle populations in the Gulf of Mexico, particularly, Kemp's ridleys (Lepidochelys kempii), where small juveniles overlap with the nearshore and inshore shrimp otter trawl and skimmer fishery in Mississippi. The project will also increase the health of fisheries by providing fishing communities with methodologies and incentives to reduce impacts to fishery resources. Sea turtle restoration will be achieved through the incentivized use of smaller bar spacing TEDs, capable of excluding small juvenile sea turtles in the otter trawl fishery of Mississippi. In order to protect juvenile sea turtles that inhabit nearshore and inshore waters of the northern Gulf of Mexico, pending TED regulations for the skimmer trawl fishery will require TEDs with

NOAA Project ID#13912: The aim of this project is to restore sea turtle populations in the Gulf of Mexico through enhancement of their protection in Mississippi coastal waters where small juveniles overlap with the nearshore and inshore shrimp otter trawl and skimmer fishery. Sea turtle restoration will be achieved through enhancing the activities of Mississippi marine enforcement directed toward TED compliance monitoring. Restoration will be achieved by maintaining TED compliance in Mississippi coastal waters at the highest level possible. Enhancement of monitoring and enforcement of TED regulations by Mississippi marine enforcement will be achieved through increased training of marine

NOAA Project ID# 13911: The aim of this project is to restore sea turtle populations in the Gulf of Mexico, particularly, Kemp's ridleys (Lepidochelys kempii), where small juveniles overlap with the nearshore and inshore shrimp otter and skimmer trawl fisheries in Mississippi. The project will also increase the health of fisheries by providing fishing communities with methodologies and incentives to reduce impacts to fishery resources. Sea turtle restoration will be achieved through enhanced outreach and training in turtle excluder device (TED) technology specifically for the skimmer trawl fishery which will be affected by a TED requirement in 2019. NOAA Fisheries anticipates the implementation of a TED use requirement for the southeast U.S. skimmer trawl fishery in 2019. Industry outreach and education on specially designed TEDs for the skimmer fishery will be crucial to successful

NOAA Project ID# 13910: The aim of this project is to restore sea turtle populations in the Gulf of Mexico through enhancement of their protection in Mississippi coastal waters where small juveniles overlap with the nearshore and inshore shrimp otter trawl and skimmer trawl fishery. The project will also increase the health of fisheries by providing fishing communities with methodologies and incentives to reduce impacts to fishery resources. Sea turtle restoration will be achieved through the establishment of a core TED outreach team to provide enhanced outreach and training in Turtle Excluder Device (TED) technology to Mississippi shrimp fishers, through which TED compliance will be maintained at the highest level possible. A core TED outreach team consisting of a coordinator and a technical expert (TED specialist) will be established for the State of Mississippi. The team will provide outreach and training to Mississippi shrimp fishers on the latest advancements in TED technology and regulatory requirements.

NOAA Project ID# 13906: Threatened and endangered sea turtles utilize the mainland beaches of Mississippi as nesting habitat. Artificial lights have been shown to reduce sea turtle nesting on otherwise suitable nesting beaches and cause disruption of the sea turtle's ability to find the sea. The first objective of this project is to conduct comprehensive nighttime lighting evaluations along the beaches of the Mississippi Gulf coastline, including Gulfport and Biloxi. The intent of the surveys is to evaluate all visible lights from the beach with respect to their potential effects on nesting and hatchling sea turtles. Lights that are illuminated and visible from the beach will be identified and evaluated (rated with respect to their potential effects on sea turtles). Based on a light's intensity, location, distance from the beach, type of fixture and other relevant factors, recommendations will be made for corrective measures. Sub-meter accurate GPS units fitted with laser rangefinders along with digital SLR cameras will be used to precisely locate and photograph lights, enabling evaluation of their effects on sea turtles and the beach. Interactive maps will be produced showing the GPS location of each light source and the location on the beach from which they were observed. With these maps, property owners and managers will be able to click each location on the beach to bring up information about the light along with a photo of the light source. Recommendations for modifying each light to provide sufficient light for human safety and

NOAA Project ID#13894: Visitor access to the NPS part of Cat Island along the north shore is difficult. The water is very shallow and boaters have to anchor their boat offshore and walk in to the shoreline; this is both an inconvenience to visitors and injurious to the nearshore benthos (from boat hull and propeller scars and also footprints). Once onshore, there are no established trails or interpretive wayside exhibits. This project would: 1) construct a 600-ft-long pier adjacent to a previous WWII military pier site at Cat Island to provide vessel access to the north shore of the island (the pier is accessible by an old military road that connects to an interior road system maintained by the park service); 2) docking facilities at the

NOAA Project ID# 13899: This project is designed to decrease interactions of marine mammals with commercial shrimp trawling gear. Dolphins are occasionally captured in shrimp trawls or entangled in the lazyline as a result of predation on gilled fish in the trawl, with hundreds of mortalities estimated per year in the Gulf of Mexico shrimp otter trawl fishery. Further, this predation results in extensive trawl damage, creating hours of work to repair the nets and these interactions have resulted in dolphins being injured or killed by fishers out of frustration. The majority of shrimp nets used in the GOM shrimp fishery are made from standard polyethylene webbing. In recent years, material such as Dyneema and Spectra have been introduced into the fishery but have yet to gain widespread use. NOAA Fisheries research suggests that these stronger materials sustain fewer dolphin bite holes compared to polyethylene nets. However, shrimp fishers are unlikely to make the investment to adopt these new net materials unless they know that comparable catch rates can be achieved. This project will compare and quantify target catch rates and dolphin bite damage between polyethylene netting (control) and stronger netting (experimental) aboard commercial trawlers rigged to pull two nets. Testing differing fishing configurations of the net such as comparison of trawl bib adjustments will also be evaluated. Additionally, the project will determine the optimal material and fishing configuration for trawl lazylines to reduce dolphin entanglement. A comparison of different lazyline materials will be conducted to determine if increasing line stiffness will decrease the likelihood of marine mammal entanglement. Drones, optical cameras, and acoustic cameras (DIDSON/ARIS) will be used to observe which materials have fewer dolphin interactions. This project will consist of five different objectives - "¢

NOAA Project ID# 13895: This project will be a comprehensive study of historical and current streamflow, sediment, nutrients, and other pertinent water quality data and corresponding salinity, pathogen, and HAB responses to help inform oyster management in the Mississippi Sound and Mobile Bay. We intend to gather current and historical streamflow and water quality data (circa 1980) to : (1) quantify a surface water budget for freshwater entering these estuaries; (2) estimate trends in sediment and nutrient loads from point and nonpoint sources; (3) gather and analyze historical salinity data compared to historical trends in freshwater streamflow and any other trends related to climate change;

The City of Bay Saint Louis would be an ideal location for an open-air amphitheater. The venue could be used for entertainment, musical performances, and local festivals. The amphitheater could also be utilized by city schools and local community organizations. An amphitheater in downtown Bay Saint Louis would be an asset and an economic benefit for the whole community.

Scope of Work: This Project will complement the existing Federal restoration projects at Deer Island by minimizing the fracturing of diversity and creation of an additional 400 acres of highly productive wetlands, beach and dune and maritime forest habitat. Planned improvements include restoration of a portion of the northern and southern shorelines of the island, and new stone training dikes to prevent future erosion. Project will also restore emergent coastal tidal marsh, restore vital nodal connections of marsh/estuarine habitat for Gulf Sturgeon (threatened species) feeding and nursery use as well as federally protected migratory species, project will restore critical winter habitat for Piping Plover (threatened species), and nesting habitat for raptors including Bald Eagle as well as listed sea turtles, project will also fully restore barrier island and natural hydrologic conditions to MS Sound as well as historical inflows of Gulf water into the sound area. The project will also fully restore historic geomorphic features through restoration, stabilization of island elevations and shoreline profiles.

Background and Cost: A feasibility study was completed in September 2009. The recommended total project, estimated to cost $25,800,000 with an estimated Federal cost of $16,770,000 and an estimated non-Federal cost of $9,030,000. Of this amount, $1,231,000 is estimated to be needed to complete PED

William Carey University is a private, non-profit university with an in-depth history in the State of Mississippi, dating back to 1892. William Carey University (William Carey) provides quality educational programs, which challenge the individual student to excel in scholarship, leadership, and service in a diverse global society. William Carey currently has campus locations in Hattiesburg, MS, the Tradition Medical City in Tradition, MS and in Baton Rouge, LA. William Carey has a vast amount of educational offerings that can be found in the following colleges and schools: College of Health Sciences, College of Osteopathic Medicine at Hattiesburg Campus, School of Arts and Letters, School of Business, School of Education, School of Music and Ministry Studies, School of Natural and Behavioral Science, School of Nursing, and School of Pharmacy.

William Carey's Tradition Campus, which opened in the fall of 2009, offers majors in art, business administration, elementary education, health related professions, nursing, and psychology. The University has recently reached a significant milestone with its School of Pharmacy's completed construction and its inaugural class of 57 students admittance this past July, with the capacity of 192 students and the creation of 34 new full-time equivalent jobs. The School of Pharmacy offers a three-year accelerated Doctor of Pharmacy program with an innovative curriculum that provides students with the knowledge and skillset required to excel as an entry-level practitioner. William Carey's School of Pharmacy is determined to make a difference in the lives of those who suffer from health issues such as diabetes, obesity, drug and tobacco addiction and asthma.

In the spring of 2018, Southern Mississippi Planning and Development District commissioned Arduin, Laffer, and Moore Econometrics and The University of Southern Mississippi to study the economic impact of a future healthcare cluster with the Tradition Medical City at the nexus; this study was published as "The Socioeconomic Impact of a Healthcare Research Cluster at Tradition, Mississippi"• Based on the proven theory that a cluster of healthcare and bioscience facilities in proximity to one another will accelerate innovation, this intellectual hub will serve as a catalyst for medical industry

The Biloxi Career and Workforce Training (BCWT) program evolved from an economic security grant funded by W. K. Kellogg Foundation and awarded through East Biloxi Community Collaborative. Our Mother of Sorrows Knights of Peter Claver is requesting funding to continue the Biloxi Career and Workforce Training program which will include two sessions, Spring 2022 and Fall 2022 to Mississippi Gulf Coast residents ages 18-50. Each participant must complete a 4 week Career Readiness course prior to advancing to Residential Electrical Wiring and General Construction. The career readiness curriculum includes training specific to financial awareness, basic computer skills, resume writing, interviewing techniques and credit reporting. The BCWT program provides a weekly residential electrical wiring class for 10 weeks. The goal of the residential electrical training is to advance participants to Helper/Apprentice level. The electrical curriculum content is presented from NCCER Electrical: Level 1. Curriculum consists of: OSHA safety, construction math, blueprint reading, basic electrical training, wiring, identification of tools and materials, cost and material estimation and in-the-field training experience. Additionally, the BCWT program provides a weekly General Construction class. General Construction training class is held for 10 weeks. The goal of the general construction training is to

Objectives - Pearl River County Open Broadband Fiber Internet is an exploration of the economics and methods of providing open access high-speed broadband fiberoptic internet access to all of the county. Open access provides the fiberoptic infrastructure while providing equal access to internet service providers to service their customers. Fiberoptic infrastructure installations are essentially infinitely wide thus only the electronics limit the speeds provided to the customers.

There is little to no competition for affordable high-speed internet in the county if it is available at all. What is available is either low speed or unaffordable for the majority of the residents. Broadband is not an ordinary product. It is essential infrastructure "the platform on which most commerce now depends. It has high start-up costs that take years to recover. When telecommunications prices are too expensive or speed too slow and unreliable, all businesses and residents suffer. Much like towns bypassed by canals, rails, or highways, future prospects are bleak for communities without adequate access to the Internet. Communities that do not invest in their own next-generation networks will likely not see any significant broadband investment in the near future.

Benefits - Benefits include encouraging economic development, increasing access to education, and improving the quality of life. Many of the benefits are indirect, or spillover effects in economic terms. Lower prices for telecommunications services mean more money in household and business budgets, and new jobs and business expansions mean increased tax revenue for local governments. These benefits to the community result in no direct benefit to the network owner, which is why private companies like Spectrum and AT&T have less incentive to invest at this level. This project's mission allows it to incorporate indirect benefits to the community when evaluating its return on investment. A private

Although the West Indian manatee (Trichechus manatus) has historically ranged throughout the southeastern United States, its recovering population has resulted in an increased number of animals traveling throughout the coastal waterways of Alabama, Mississippi, and Louisiana. Still, this is a vulnerable species requiring continued monitoring as well as rescue and rehabilitation services. Unfortunately, there are no facilities equipped to conduct rescue and rehabilitation efforts in Alabama, Mississippi, or Louisiana. Instead, these states must rely on assistance from facilities and personnel from other states to execute both the rescue and rehabilitation of these animals. The Institute for Marine

The Land Trust for the Mississippi Coastal Plain (LTMCP) is an accredited Land Trust dedicated to the conservation, promotion, and protection of open spaces and green places of ecological, cultural, or scenic significance in the counties of the Mississippi Coastal Plain. LTMCP utilizes both fee simple and conservation easement tools in conserving land for the benefit of habitats, species, and recreation. The Land Trust holds a conservation easement on approximately 18 miles of the Wolf River North of I10 in partnership with The Wolf River Conservation Society which is a non-profit corporation dedicated to conserving, managing, and protecting the Wolf River and its watershed from its headwaters in Lamar County to its termination at the Bay of St. Louis. The State of Mississippi has classified the entire length of the Wolf as a Fish & Wildlife stream to protect recreational use and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. The Wolf River is also Mississippi's first scenic stewardship stream.

The goal of this project is to establish funding to purchase individual parcels of land owned by the Weyerhaeuser Company totaling Â¬39,028 acres, located in areas identified as crucial to establishing complete corridors of conservation land. The Wolf River Conservation Society has identified these sites based on locations that would continue conservation corridors previously established by the State of Mississippi, North of I10, in Harrison County that totals approximately 1320 acres managed by the

Despite Mississippi's relatively short coastline, the Mississippi Gulf Coast produces an abundance of natural resources and economic impact. Coastal Mississippi was once renowned as "the seafood capital of the world."• However, today approximately 90% of the fish consumed in the United States are imported. The entire Gulf Coast produces 70 percent of the nation's oysters, 69 percent of domestic shrimp and is a leading producer of domestic hard and soft-shell blue crabs. In 2014, the Mississippi seafood industry generated total economic impacts of $199 million and created 4700 jobs. As a component of this industry-wide impact, the Mississippi seafood processing industry annually produces approximately $100 million in economic impacts and supports approximately 1000 jobs in coastal counties. Gulf seafood contains many of the nutritional and taste qualities desired by consumers, including high-quality protein and vitamins, low calories and saturated fats, and high omega-3 fatty acids. Consumers have responded to these qualities by increasing seafood consumption, as reflected by a nearly 3-fold increase U.S. per capita consumption of shrimp over the past 25 years. Yet safety and quality of seafood products remain an important public health and economic issue as illustrated by water quality related beach closures and consumption restrictions associated with the Deep-Water Horizon oil spill. In addition to the oil spill, Hurricane Katrina and the opening of the Bonnet CarrÃ© Spillway have contributed to the dramatic decrease in oyster production. The Mississippi Governor's Oyster Restoration and Resiliency Council made a determination in 2015 to restore oyster reefs to promote oyster aquaculture and set a goal of 1 million sacks of annual oyster production by 2025. The increased focus on oyster restoration and aquaculture production in MS will greatly enhance the state economy. However, outbreaks of food-borne pathogens in raw oysters have produced a negative impact on oyster marketing. To successfully restore production and marketing of oysters and other seafood, research ensuring food safety and value-added utilization is needed.

Additionally, catfish is the most important aquaculture product in the United States with a total production of about $400 million per year, concentrated in the mid-south coastal states. Mississippi leads in catfish production with a farm gate value of approximately $200 million. Eleven catfish fillet

The Lower Pearl River Watershed Environmental Education Center and Completing the Unbuilt Arboretum Location: Picayune, Mississippi

The primary objectives of this project are 1) to establish the Lower Pearl River Watershed Environmental Education Center at the Crosby Arboretum in Picayune, and 2) to increase tourism at the Crosby Arboretum by completing the designs of renowned architect E. Fay Jones.
The host site for the proposed Environmental Education Center is the nationally renowned and award winning public garden, the Crosby Arboretum, which is offers a 65 acre native plant conservatory and trail system that highlights sustainable management of habitat types that are key to a healthy Pearl River watershed. The Environmental Education Center will provide a peaceful and educational attraction that will appeal to travelers and locals where they can stop in to explore and learn about the primary native habitats and ecosystems found along the Lower Pearl River Watershed. This new Environmental Education Center will feature hands-on exhibits that address the main issues impacting the resiliency, stream health, and biodiversity of the Pearl River watershed's habitats. The Center and its exhibits will educate visitors on the benefits of sustainable habitat management and the benefits to a healthy Pearl River watershed and downstream coastal water quality. One of the proposed interior exhibits will be dedicated to interpreting the impact of the 2010 Deepwater Horizon oil spill and its impact to the lower Pearl River. These indoor exhibits, along with the restored outdoor exhibits and trails of the Crosby Arboretum, will provide for a dynamic and unforgettable visitor experience. The potential tourism and educational impact of the Environmental Education Center can leverage on the fact that the Crosby Arboretum is part of Mississippi State University, which provides access to specialized faculty and an abundance of educational resources for educational programming addressing coastal region issues such as environmental resiliency, habitat restoration and conservation, ecotourism and heritage tourism promotion and marketing, to name only a few. These educational events are offered to not only the public but also to K-12 students, garden and naturalist clubs, among others. The Crosby Arboretum is also home to a Mississippi landmark structure, the Pinecote Pavilion, designed by renowned architect E. Fay Jones,

Mississippi's first responders have a substantial need for real-time, prioritized and on-demand aerial imagery and other airborne capabilities to support natural disasters such as oil spills, hurricanes, floods and fires. Airborne imagery provides up-to-the-minute information to support critical decisions on the allocation of response personnel, equipment and capabilities to save lives in the immediate aftermath of a disaster situation.

Unmanned Aircraft Systems (UAS) are capable of providing high-quality, prioritized and persistent aerial imagery for sustained periods. Today's UAS technologies can provide:
"¢ Up to 12 hours of uninterrupted, high-resolution imagery or communications relay capability in a single mission;
"¢ On-demand prioritization and re-allocation of capabilities at the direction of the on-scene commander;
"¢ Delivery of medical supplies and support to areas that are inaccessible to first responders;
"¢ Relief from aircrew limitations due to the ability to rotate crews over the duration of a single flight;

The Land Trust for the Mississippi Coastal Plain (LTMCP) is an accredited Land Trust dedicated to the conservation, promotion, and protection of open spaces and green places of ecological, cultural, or scenic significance in the counties of the Mississippi Coastal Plain. LTMCP utilizes both fee simple and conservation easement tools in conserving land for the benefit of habitats, species, and recreation. The Land Trust holds a conservation easement on approximately 18 miles of the Wolf River North of I10 in partnership with The Wolf River Conservation Society (WRCS). WRCS is a non-profit corporation dedicated to conserving, managing, and protecting the Wolf River and its watershed from its headwaters in Lamar County to its termination at the Bay of St. Louis. The State of Mississippi has classified the entire length of the Wolf River as a Fish & Wildlife stream to protect recreational use and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. The Wolf River is also Mississippi's first scenic stewardship stream.

The goal of this project is to establish funding to purchase individual parcels of land totaling Â¬428.5 acres, located in areas identified as crucial to connecting continuing corridors of conservation land. The Wolf River Conservation Society has identified these sites based on locations that would expand conservation corridors previously established by the State of Mississippi, North of I10, in Harrison

The people that live, work and visit the Biloxi peninsula are all within a few hundred yards of the Biloxi Back Bay or the Mississippi Sound and their actions have immediate impacts on the environment because all the stormwater runs into marine water either directly or by way of one of several bayous leading to the Back Bay. In the past few years most of the streets and the storm drainage systems on the peninsula have been or are being replaced, a situation that is positive as far as moving stormwater out of streets but will increase the stormwater impact on the bayous and back bay with more and faster moving storm water. What is more, the construction work itself has impacted the natural waterways due to increased silt running into the bayous from unpaved roads. The time for the Biloxi peninsula is right for a comprehensive community-engaged stormwater management campaign that improves and creates both upstream and downstream green infrastructure.

Upstream, the project will improve the quality and quantity of water that enters the storm drainage system with four related activities:

1.Environmental education with Biloxi Public School students

2.Stormwater education to residents of the Biloxi peninsula

3.Low-impact development training and design resources for developers and city staff

4.A property owners small-grant program to do on-site and neighborhood-scale green infrastructure projects.

Downstream, the project will improve the stormwater quality and quantity that enters the marine environment with two related activities:

1.Restoration and improvements of natural waterways that connect storm drainage to the Back Bay, especially Keegan Bayou and Bayou Auguste, which have been impacted most by the road construction work.

2.Coordination and leveraging of on-going and planned projects to bring green infrastructure planning and funds to install and maintain landscape areas

Environmental education with Biloxi Public School students. For the past seven years GCCDS has developed and implemented educational outreach programs with Biloxi Junior High School, East

This 4000' X 60' concrete Assault Landing Strip (ALS) will be constructed adjacent to the Airport's runway and provides needed training to local and transient US Military forces. The ALS supports Keesler Air Force Base's 403rd Tactical Airlift Wing, 815th Tactical Airlift Squadron and 53rd Hurricane Hunters' training missions. This specific designed asset will support transient C-130 airwings and joint warfighting training & readiness training. This project supports Naval Special Warfare (Special Boat Team 22 (SBT22), Naval Small Craft Instruction & Technical Training School (NAVSCIATTS), and WARCOM) at NASA's John C. Stennis Space Center, the U.S. National Guard's Combat Readiness

Wetlands mitigation costs have historically been identified as a hinderance to economic development throughout the Mississippi Gulf Coast Region. SMPDD seeks to secure a pool of readily-available wetlands mitigation credits from private sector mitigation bank inventory for use on qualified, Corps-permitted projects, leveraging volume purchasing power to deliver significantly discounted credits and

Along the beachfront, adjacent to the Gulfport harbor, across from the upcoming Aquarium attraction, and with access to downtown's food and beverage, gaming, and lodging, the area around Gulfport's Jones Park / Barksdale Pavilion has become the City's hub for tourism.

With the expansion of recreational activities and tourism in this area, the City of Gulfport has an immediate need for additional parking. Complimenting an adjacent lot, the proposed expansion of parking along the eastern edge of Jones Park will promote workforce development by providing additional areas for workers to park, will provide visitors access to tourism, eco-tourism, and recreational activities, provide additional public access for residents and visitors to the beach and fishing opportunities, and provide access to the educational benefits associated with the new aquarium. Ultimately this parking area will ensure inadequate parking will not stifle Gulfport's booming economic

Development of on-site facilities at Mississippi Aquarium to house ambassador animal collection that the aquarium uses for educational outreach both at the aquarium and at schools throughout the state. The facility will also enlarge our on-site animal holding and treatment capacity to care for more animals on site and provide space for maintenance shops to handle rebuilding of pumps and equipment to increase life expectancy. Small office space for the maintenance team and aquatic team will also be included. This

Development and installation of dynamic graphics throughout Mississippi Aquarium's campus that will highlight critical content that supports the conservation of Mississippi's most precious water systems. Utilizing a variety of media including digital monitors, informational signage, interactive displays, and

Construct an exhibit linking the USM Gulf Coast Research Laboratory and its fleet of vessels with visitors to the Aquarium through live and pre-produced video and interactivity by highlighting USM's research projects and scientists. Pre-produced programming would run on the screens at the Mississippi Aquarium on a regular basis including (1) Stories about scientists and how they became engaged in studying the Gulf; (2) featured research on aquaculture, marine ecology and oceanography; (3) highlights

The ARC will build the body of knowledge around the growing One Health movement, a collaborative effort of multiple health science professionals "veterinary medicine, human medicine, environmental, wildlife and public health "to attain optimal health for people, animals, wildlife, plants and our environment. By exploring the connection between health and the environment, this interdisciplinary approach can help protect present and future generations.

Over the last three decades, approximately 75% of new emerging infectious diseases have been zoonotic, meaning the diseases have been transmitted from animals to humans. Research that studies the link between human, animal and environmental health is critical to our future, yet much of the work in this area has been focused on terrestrial species. By exploring the connection between health and the environment, The ARC can help protect present and future generations.

Given the centrality of water to human life, and the great diversity of species and habitats our ocean supports, there is an urgent need for research focused on aquatic ecosystems. Not only will this research

The MMU will provide a hands-on education for both children and families alike throughout the State. Teachers and educators from grades K to 12 will have the ability to use the MMU at their schools and present a variety of lessons. These lessons can range from basic biology and anatomy, to animal care and building aquatic system all while threading in a message of costal conservation and preservation.

As the MMU moves throughout the community, new relationships will be made in supporting the aquariums coastal conservation messaging to promote the health and well being of the community.

The MMU enhances an important conversation about aquatic life, animal conservation, and sustainable lifestyles everywhere it rolls. The MMU will connect educators through association with the aquarium and will create a network of people passionate about the conservation and sustainability in the State of Mississippi.

The Inside Explorer software utilized in educational programs will generate public awareness about the internal systems of native animals. Teaching our community about the different functions of living things gives the community a unique perspective on what they need to survive. Just like humans, living things

The goal of this project is to conduct landscape-scale ecosystem restoration on the highly visible land surrounding the INFINITY Science Center""located adjacent to, and complementary to the goals of, the Mississippi Department of Marine Resource's Coastal Preserves""and to couple that restoration with a robust educational program that raises awareness of the importance of the health of our natural systems to our quality of life on the Gulf Coast.

The project, as proposed, has two primary components. The restoration component will serve to utilize a recently conducted habitat assessment to implement an aggressive restoration plan, resulting in numerous ecosystem services benefits such as improved water quality, connectivity with other adjacent restored parcels, flood and storm water runoff storage, significantly enhanced vegetative diversity, a decrease in invasive species, higher quality wildlife habitat, and increased safety and security for INFINITY. The

I HAVE A NEW CONCEPT FOR THE DESIGN AND CONSTRUCTION OF HURRICANE STORM SURGE BARRIERS, BARRIERS THAT ARE SPECIFICALLY DESIGNED FOR OUR UNIQUE BAY MOUTHS. i HAVE THE APPROVAL OF THE CONCEPTS BY CLARK STANAGE, WHO IS THE LEAD WATER CONTROL ENGINEER FOR THE WEST COAST US ARMY CORPS OF ENGINEERS, AND HAS BEEN SO FOR THE PAST 30 YEARS. HIS HOME PHONE # IS (916) 487-5215. MY BARRIERS ARE A SERIES OF ISLANDS ACROSS THE BAY MOUTHS. SEPARATING THE ISLANDS ARE CONCRETE CULVERTS, WITH FLAT BOTTOMS FLUSH WITH THE BAY FLOORS. THEY HAVE VERTICAL SIDES, NO TOPS. HINGED TO THE SIDES OF THE CULVERTS ARE STORM SURGE BARRIER GATES, similar in concept to cattle gates across a road. THESE GATES ARE NEVER CLOSED, EXCEPT DURING A HURRICANE OR A HIGH-FLOODING TIDE.

AS A STORM SURGE APPROACHES OUR BAYS, AND THE SS WATER LEVEL GETS 9"

The Walter Anderson Museum of Art requests $1,554,000 for Phases 2-4 of the Creative Complex, a campus expansion for coastal discovery and innovation, public access, and quality of life empowered by immersion in the natural world. The Creative Complex, a combined 15,000 square feet of interior and exterior spaces and public gardens, will be a center of education and recreation where visitors make connections to 21st century landscapes and applications, including those in science and technology, aquaculture and foodways, tourism, environmental stewardship, and restoration.

The purpose of the project is to cultivate lifelong curiosity and connection to place through the convergences of culture, economy, education, and the environment. As American author Wendell Berry writes, "Neither nature nor people alone can produce human sustenance, but only the two together, culturally wedded."•

Art, as a force for meaning-making and cultural resonance, is critical to the story of the Gulf Coast's resiliency. Walter Anderson's art contributes to the region's public education systems, tourism and community development, and conservation efforts. His studies of flora, fauna, and landscapes "and his history of exploring the barrier island wilderness "provide points of ignition for recreational and research-based programs that connect communities to their estuarine landscapes, as well as to the urgent need to study and protect them.

WAMA's partners in science and restoration, including The University of Southern Mississippi Marine Education Center and the Grand Bay National Estuarine Research Reserve, are looking to art to communicate about complex systems. "Our goal is conservation, but conservation is complicated,"•says Dr. Ayesha Gray of the Grand Bay NERR.

"Connecting nature, art and science is part of the heritage of the Gulf Coast and that legacy is exemplified by Walter Anderson's work,"•says Kelly Lucas, Ph.D., Interim Associate Vice President for Research of

The north central Gulf of Mexico is home to endangered and protected species such as bottlenose dolphins (Tursiops truncatus), West Indian manatees (Trichechus manatus), as well as loggerhead (Caretta caretta), green (Chelonia mydas) and Kemp's ridley (Lepidochelys kempii) sea turtles. These species are all at risk to both anthropogenic and natural threats such as pollution, boat strikes, infectious diseases, fisheries interactions, and natural disasters "making necessary the creation of rehabilitation centers to rescue and treat sick and injured marine mammals and sea turtles. The Institute for Marine Mammal Studies (IMMS) is a marine mammal and sea turtle rehabilitation facility, strategically located on the Mississippi gulf coast. IMMS has been involved in the rescue, rehabilitation, and release of marine mammals and sea turtles since 1984, and IMMS' staff along with veterinarians from MSU's College of Veterinary Medicine have the necessary experience, facilities, and capabilities to conduct rescues and rehabilitation activities within this region as well as coordinating with both State and Federal agencies. Following the Deepwater Horizon (DWH) Oil Spill in 2010, IMMS built a turtle rehabilitation center to house sick and injured sea turtles and marine mammals. This structure was originally intended to be temporary and allow IMMS to respond to the spill alone. Since 2010, IMMS has responded to over 1,000 live sea turtle strandings, and has assisted in the rehabilitation of a large number of cold-stunned sea turtles which were flown to Gulfport from the New England Aquarium. Many of the turtles admitted to the facility do not fully recover during the warm summer months, resulting in the use of the rehabilitation facilities on a year-round basis. IMMS is in need of a permanent rehabilitation facility to provide better conditions for turtles that over-winter. An increased number of tanks, as well as larger tanks, and an improved drainage system will also allow IMMS and MSU to provide care for large sub adult and adult sea turtles that require a long-term rehabilitation plan. Moreover, with an enhanced rehabilitation center, IMMS will be able to facilitate sea turtle conservation on a national and regional level by being able to offer support to other stranding facilities and provide optimal high level rehabilitative care for a large

Transitional housing for veterans to assist in stabilizing their return to being a productive citizen. Purchase property to house up to 6 veterans coming out from programs within the Biloxi Gulf Coast Veterans Health Care System (VA hospital). Whether they are coming out of the PTSD, Alcohol or Drug rehabilitation they need a place for temporary housing until HUD/VASH can get them long term housing - rather than rushing them into a drug trafficking location or a similar non-healthy recovery location. Currently, several go back out to homelessness and return to being a problem to society. This facility would provide them 24 hour management, temporary shelter in a clean environment, provide food and counseling on site, as well as retail experience working on site; thereby, starting a working resume. A coffee shop would be built on this property to provide a job for these veterans transitioning without them

Overview of Proposed Activity

Background: The Gulf of Mexico's forests, when healthy, reduce sediment and nutrient yields, regulate surface water flows, and improve groundwater recharge relative to other land uses (Sun et al., 2004; Lockaby et al. 2013). They offer recreational opportunities, wildlife habitat, improved air quality, support for the region's economy, and are an integral part of the carbon cycle. Protecting forests at risk of conversion to more intensive uses (Klepzig et al., 2014), restoring native species (Brantley et al., 2018), controlling invasive species, managing for resilience against catastrophic loss (e.g., wildfire, hurricane, drought, pests, etc.), and restoring forested wetlands, floodplains and riparian areas are vital to the health of the Gulf (Vose et al., 2011).

Proposal: This application seeks to establish a program that will enhance and maintain water quality and quantity by protecting, managing, and restoring forested ecosystems. The Program is centered on advancing the RESTORE Council's water quality and quantity goal, but benefits will accrue in all goals. The focus is on protecting and restoring forests, including urban forests, in priority watersheds in Alabama, Florida and Mississippi where the need is great, and Partners stand ready to assist and leverage investments. The Program is a scalable, science-based approach implemented on public and private lands. It involves:
"¢Landowner outreach techniques that build upon and look to enhance existing tools and networks.
"¢Coordinated delivery through State Forestry Agencies in Alabama, Florida, and Mississippi.
"¢Focused recruitment of forest landowners in targeted watersheds.
"¢Science-based decision support from the USDA Forest Service Southern Research Station who will use the Soil and Water Assessment Tool (SWAT) model and other data and tools to inform priorities, assess and monitor project impacts, and inform adaptive-management decisions.
"¢Potentially using a portion of funding for an open and competitive Request for Proposals (RFP) to extend the reach of these efforts and cultivate innovation.

The project will expand upon projects from 2015 NRDA funding received by INFINITY Science Center that would introduce the importance of sustainability and renewable energy as valuable aspects of restoration and future protection of wetland ecosystems. Electricity that is non-solar requires the use of fossil fuels and the expansive use of fossil fuels created the demand that led to the BP disaster. Reducing the use of fossil fuels for electricity decreases the demand for fossil-fueled sources of electricity thereby reducing the overall risk of further disasters. This project includes the addition of solar panels with battery backup for INFINITY Science Center with an educational component inside the building to increase public learning and awareness about the importance of sustainability and renewable energy in ongoing wetland protection. The project will also ensure that our electric trams, purchased through INFINITY's initial NRDA award, are solar powered rather than powered by electricity that is from non-renewable fossil fuel sources. The project aligns with NRDA and Restore Funding purpose and

NOAA Project ID#14251: Overarching Goals Related to Nexus to Injury Contribute to the recovery of sea turtle populations injured by the BP oil disaster by addressing the anthropogenic threat of marine debris and derelict fishing gear. This threat would be ameliorated through the removal, reduction and prevention of marine debris and ghost fishing gear, effectively decreasing barriers to nesting sites, enhancing sea turtle nesting opportunity and productivity and lowering the risk of hatchling, sub-adult and adult entrapment or entanglement in derelict fishing gear. Additional goals are: 1) to build capacity and understanding within the recreational and commercial fishing sectors across the Gulf of Mexico to reduce loss of, and minimize risks and biological impacts resulting from ghost fishing gear; and 2) to engage and educate members of the consumer packaging and product industry to support and advance upstream, private sector intervention strategies or policies to reduce macroplastic inputs to the Gulf of Mexico. The project would be developed and implemented to maximize benefits for injured avifauna and marine mammal populations affected by marine debris and ghost fishing gear. Project Overview In collaboration with local conservation organizations, scientists and fishing communities throughout the Gulf of Mexico, Ocean Conservancy proposes a comprehensive marine debris intervention strategy to help restore sea turtles in ocean waters impacted by the Deepwater Horizon (DWH) oil disaster. This work is centered on four specific objectives, each advanced by a suite of integrated activities. This work leverages our institutional expertise through the International Coastal Cleanup and Global Ghost Gear Initiative, new scientific research and our successful effort to secure a framework and funding for Gulf restoration following the BP event to advance measurable conservation outcomes and management decisions. Ocean Conservancy's decentralized volunteer infrastructure will allow local orga nizations to plan and conduct cleanups more strategically and effectively, and allocate effort where conservation impact is likely to have the greatest benefit. This body of work builds on key relationships in Gulf Coast

NOAA Project ID# 14285: It has been well documented for more than 20 years that illegally feeding wild dolphins can lead to a variety of high risk situations that place both dolphins and people in danger (Cunningham-Smith et al., 2006; NMFS 1994; Orams et al., 2002; Samuels & Bejder, 2004). When dolphins learn to associate people with food, unnatural behaviors such as begging for handouts disrupt their natural foraging patterns and become an abnormal and risky feeding strategy (NMFS 1994; Powell & Wells, 2011). Fed dolphins approach boats more readily looking for handouts, thus increasing the animals' risk for boat strike or gear entanglement (Bechdel et al., 2009; Powell & Wells, 2011; Samuels & Bejder, 2004; Wells & Scott, 1997). Fed dolphins can also become targets for human acts of retaliation, including fishers who become frustrated by dolphins begging, removing bait or catch from their lines, or scavenging on undersized throw-backs. Begging behaviors can be passed through a dolphin population via social learning, thus perpetuating and increasing the prevalence of the problem over time (Donoghue et al., 2002; Wells, 2003; Whitehead et al., 2004). Calves of provisioned mothers are at increased risk for compromised developmental and social learning skills, predation, and insufficient hunting experience due to neglect while mothers are seeking handouts from humans (Foroughirad & Mann, 2013; Mann & Barnett, 1999; Mann & Kemps, 2003). Illegal feeding of wild dolphins has been documented or reported in every Gulf state, with several areas being considered hot-spots, and by various water users (i.e. tourism vessels, commercial and recreational fishermen etc) . Therefore, the goal of this project is to reduce lethal impacts to dolphins from illegal feeding activities

NOAA Project ID#14311 The Gulf Coast has clearly been identified as critically important for shorebirds and seabirds during all seasons of the year. Threats of habitat destruction from coastal storms, sea level rise, and human factors continue to impact their populations. Human populations and tourism activities continue to grow along the Gulf Coast limiting habitat availability for shorebirds and waterbirds. Much attention has been placed on increasing nesting opportunities for many breeding species through habitat restoration and stewardship initiatives. However, less emphasis has been placed on the wintering and migratory periods when there is an influx of tourists to the Gulf Coast. This has greatly impacted where birds can feed and roost to maintain their condition and prepare them for migration and/or nesting. Carry-over effects of sub-optimal habitat in wintering areas and migration stopovers has been documented and can be substantial to populations particularly those populations that are already in lower condition or when northern destination sites are also diminished (e.g. Delaware Bay).

Implementing effective conservation actions for migratory shorebirds and seabirds is often at conflict with recreational use of beaches on the Gulf Coast. Even when presented with strong scientific evidence of the need for some level of site protection, the will to implement adequate protection measures is often met with resistance particularly for migratory and wintering birds that have less protection. Overcoming this obstacle will be key to moving shorebird and seabird conservation forward as demand for beach access increases while threats from sea level rise and habitat loss are also increasing. This project has three primary objectives; 1) understanding the impediments land managers and owners have for implementing effective shorebird and seabird protection measures; 2) identifying a network of public and private lands that can be actively managed throughout the year; and 3) implementing incentive-based solutions on those lands that creates a Gulf-wide network of year-round refugia for shorebirds and seabirds.

To accomplish objectives 1 and 2, we will be eliciting the needs landowners and managers have for implementing effective conservation on their lands and identifying information gaps for strategic, site-specific conservation through a series of facilitated workshops. During the workshops we will 1) Elicit objectives from coastal resource managers, landowners, and bird conservation programs and identify

NOAA Project ID#14308 The continued lack of productivity from oyster reefs in the northern Gulf of Mexico remains a critical ecological and economic issue for the region. Geographic proximity and inter-connectivity of the Mississippi, Louisiana and Alabama coastal systems "in addition to the commonality of issues with oyster populations those areas "support the concept of a multi-state collaboration on this innovative regional project. We propose the establishment of leases in Mississippi, Louisiana and Alabama coastal waters for the creation of reefs to provide science-based guidance for successful restoration programs. The creation of reefs on water bottoms leased to states and/or research universities will provide numerous advantages unattainable by other means, including: (a) controlled/restricted access to reefs to facilitate long-term assessment, (b) implementation of a sound experimental design for rigorous statistical comparisons, (c) siting of leases along a gradient of varying hydrological conditions to assess regional scale functionality, (d) integration of cost-benefit analyses to assess and maximize ROI for reef productivity, and (e) establishment of appropriately scaled structures to demonstrate effective coastal restoration practices across a broad spatial extent. Twelve leases of 75-acre coverage each are proposed in Mississippi, Louisiana and Alabama coastal waters. Reefs must be large enough to be representative of naturally-occurring reefs but not so large as to be prohibitive from a cost or maintenance perspective. Multiple reefs are also required to serve as replicates for assessing within-site variability of factors of interest. In consideration of those factors, reef plots of one acre in areal coverage are proposed. Each lease will be divided into two sections, one of which will encompass 50 acres and contain nine 1-acre reef plots therein. The inclusion of nine reef plots within each lease would allow for a minimum of three replicates for a maximum of three t reatment levels within each lease. The second section will encompass 25 acres to allow for the inclusion of larger reef plots for supplemental research purposes. Specific experimental treatments and their step-wise implementation over time may include cultch type/size, planting density, relief/height, and application of hatchery-reared oysters. Of critical

NOAA Project ID#13584: This project idea focuses on addressing bycatch of sea turtles at shore-based locations that concentrate recreational fishing (fishing sites), such as fishing piers, bridges, and other shoreline structures, and would restore for injured sea turtles by reducing this bycatch. The goal of the project would be to identify factors (e.g., bait type, hook type, discarded bait in the area, pier lighting, depth of pier, fishing time, etc.) contributing to the incidental capture of sea turtles at fishing sites and to then implement voluntary programs to reduce captures from occurring. This could be accomplished through the following: 1) Create an inventory of fishing sites in the GOM and characterize the sites relative to variables that may influence bycatch of sea turtles (e.g., night fishing, fish cleaning stations, bait types, hook types, etc.). 2) Characterize bycatch of sea turtles at fishing sites through angler surveys, the collection of standardized information from incidentally captured turtles reported to the STSSN, and assessment of gear recovered, to better understand co-factors influencing sea turtle bycatch, 3) Develop and implement a comprehensive educational effort to the recreational fishing community to promote

NOAA Project ID#14283 In the southeastern U.S. shrimp fishery, Turtle Excluder Devices (TEDs) have been shown to be 97% effective at excluding turtles. However, the effectiveness of TEDs largely dependent on fisher compliance with proper installation and operational maintenance of the devices. To ensure proper TED compliance, NOAA) developed a Gear Monitoring Team (GMT) program, which operates in the Gulf States out of the NMFS Pascagoula Lab. The GMT works with the fishing industry to improve their knowledge and understanding of how to effectively build, use, and maintain TEDs. This is achieved through fisher workshops and courtesy dock-side and at-sea TED inspections. The GMT also works closely with the Observer Program to identify specific areas of bycatch concern within the Gulf. However, turtles interactions with shrimp trawls are seldom detected by onboard observers because most are expelled from the mouth of the trawl or slide out of the TED escape opening (alive or dead) during haul-back. Therefore, the GMT is often times forced to be reactive and focus outreach efforts to areas where stranding events have occurred. Sea turtle restoration efforts in the shrimp fishery could greatly benefit from a better understanding of the spatial and temporal distribution of sea turtle interactions. This would allow the GMT to be proactive and strategically target outreach efforts in "hotspot"•areas where and when high frequencies of sea turtle interactions are likely to occur. Hotspot identification could also

NOAA Project ID#14265 Robust assessments of bird population trends and their drivers are essential to inform selection of priority species and habitats for conservation and restoration. Resource managers need to know which species are declining as well as which habitats and regions are resilient to future change in order to make informed decisions that protect birds, their habitats, and their communities. Furthermore, this information must be shared with resource managers in an accessible format that enables them to make efficient and timely management and conservation decisions. Therefore, we propose to model and project the effects of climate and land cover change on the abundance, sustainability, and resiliency of bird communities across the Gulf of Mexico. Traditional analytical methods utilize data from single surveys, none of which have sufficient spatial and temporal coverage for robust modeling. We will resolve this issue and provide the accurate, high-resolution models needed to inform Gulf conservation by implementing integrated modeling techniques. To maximize inference from across a wide range of research and monitoring projects, we will develop Bayesian integrated hierarchical models that can effectively combine data across multiple structured and semi-structured protocols. We will use these methods to produce robust estimates of population trends and distributions for multiple landbird, shorebird, and marsh bird species, while accounting for uncertainty. By incorporating powerful forecasting of land cover change across the Gulf we will be capable of describing how current bird distributions and trends will change in the future. Species-specific maps of current and future distributions will be created from this effort and provided to resource managers. These distribution and abundance models will incorporate a suite of remotely-sensed land cover and climate predictors variables used in recent Gulf-wide habitat modeling efforts (Lankford et al. 2018, https://www.audubon.org/conservation/gulf) to model environmental relationships. These may include proportional cover of estuarine and palustrine wetland, shoreline, agriculture, grassland, shrubland, and developed habitats; landscape metrics such as patch size or connectivity of land cover types; length of sandy beach; annual spatially-interpolated climate variables; elevation; and distance to coast or other

NOAA Project ID# 14264 A central challenge to developing the understanding of bird status and distributions needed to inform effective restoration planning has been the lack of a central database to house and share regionwide survey data. Extensive bird occurrence and abundance data have been collected across the Gulf of Mexico prior to and following the Deepwater Horizon oil spill. These data include observations from multi-decadal monitoring programs that provide a historical context for current bird distribution and abundance. Yet currently data are scattered across many proprietary databases, if they exist in a database at all, stored in a multitude of data structures and formats. This prevents the integration, or even awareness, of data needed to achieve restoration planning goals.

Therefore, we will compile available avian count and occurrence datasets in a central relational data warehouse to facilitate subsequent analyses and make these data available to land managers and restoration planners. Extensive semi-structured community science data (i.e., data collected by volunteers, until recently referred to as citizen science data) are available for Gulf of Mexico bird species through monitoring programs and databases including eBird, National Audubon Society's Christmas Bird Count, U.S. Geological Survey's Breeding Bird Survey, and state-level colonial waterbird surveys. By comparison, structured data rely on more intensive sampling and standardized protocols that provide the additional information necessary to account for imperfect detection and produce accurate abundance estimates. Multiple structured datasets also exist for suites of birds across the Gulf of Mexico, including the Gulf of Mexico Marsh Bird Atlas, and Audubon Coastal Bird Survey. Moreover, many other individuals and entities possess Gulf of Mexico bird occurrence and abundance data, including Natural Resource Damage Assessment oiled bird surveys; targeted surveys that focus on a single species, guild, or site such as National Audubon Society Least Tern and Piping Plover monitoring; and academic research.

Audubon has already begun compiling structured and semi-structured data for species included in this proposal. Data from 11 flagship shorebird, waterbird, and marsh bird species from across the Gulf of Mexico were compiled throughout the annual cycle, including species such as Clapper Rail (Rallus

NOAA Project ID# 14256 Birds are a conspicuous and remarkable natural resource of the Gulf of Mexico with hundreds of species and billions of individuals supported at some point during their annual lifecycle by barrier islands, beaches, marshes, and coastal forests across the Gulf ecosystem. While birds are an indicator of ecosystem health and natural resources on which humans rely across the region, the Deepwater Horizon (DWH) oil spill affected 93 species and potentially over 100,000 individuals through oil exposure to individuals and their habitats. Global population impacts are likely greatest on the 45 injured species breeding within habitats located in the five Gulf States. Reduced breeding members or limited nesting habitat due to DWH can substantially limit recruitment, thereby undermining state and federal recovery efforts. Understanding bird-habitat associations and responses to management efforts can drastically improve and inform restoration planning. The ability to monitor injured species across the Gulf states would be instrumental in assessing past restoration efforts (i.e., birds recovered per project investment), which is crucial to implementing successful future restoration projects.

The lack of adequate pre-DWH spill data to inform decision-makers and provide a robust assessment of realized damages and planned restoration efforts for birds highlighted the need for region-wide monitoring. Our primary objective is to collect information that will establish a baseline of the status and trends of avian populations in a changing coastal landscape, as well as provide a better assessment of damages to avian resources after a future natural or anthropogenic disaster. Data collection will be used to answer pressing questions related to how populations respond to management actions, such as restoration, vegetation plantings, prescribed fire, and ecological processes, such as hurricanes, habitat succession, predation, that have been identified as high priorities (i.e., high uncertainty and high impact on populations) through a structured decision-making process.

To provide crucial data on injured bird species along the northern Gulf Coast, we plan to implement our

NOAA Project ID#14243 Beach-nesting birds across the Gulf of Mexico encounter a wide array of challenges to successful reproduction. Because of this, a multidisciplinary, adaptive approach is needed to address ever-changing conditions and threats like human disturbance, unbalanced predator populations, habitat loss, sea-level rise, and increased storm intensity. This multifaceted approach to beach-nesting bird conservation has been proven successful in the recovery efforts of Piping Plovers on the Atlantic Coast over the last 30 years, and can be applied to many other species that still face substantial challenges and declining populations, including those along the northern Gulf of Mexico. Building on a successful foundation already created by the National Audubon Society, a sustained region-wide coastal bird stewardship program will include monitoring for reproductive success and assessing threats, community engagement, education, habitat and predator management, policy action, and law enforcement training and support. Audubon's vision for beach-nesting bird management includes buy-in from and collaboration with a coalition of partners including federal and state agencies, local municipalities, public and private land managers and other conservation organizations. Guided by the work of the Deepwater Horizon Natural Resource Damage Assessment Trustees, the Trustee Implementation Groups, and the RESTORE Council, Audubon is proposing a region-wide Coastal Bird Stewardship Program. Such a program will be able to implement most of the restoration approaches identified in the Deepwater Horizon Oil Spill Natural Resource Damage Assessment "Strategic Framework for Bird Restoration Activities (June 2017) that guides the restoration efforts for birds. These approaches include the restoration and conservation of bird nesting and foraging habitat (a priority for this restoration plan), establishing or restoring breeding colonies, preventing incidental bird mortality from predators and humans, re storing and enhancing dunes and beaches, enhancing barrier and coastal islands, and protecting and conserving coastal habitats. Through a region-wide, comprehensive approach informed by local management needs, this program would maximize effectiveness, efficiency, and

NOAA Project ID# 14185 On October 17, 2018 the Gulf States Marine Fisheries Commission (GSMFC) hosted a special session on the Kemp's ridley sea turtle during their Annual Meeting, held at South Padre Island, Texas. The aim of this session was to update the GSMFC on the present state of knowledge on the ecology and population status of the Kemp's ridley sea turtle. From the presentations by 7 experts on Gulf of Mexico sea turtles and recently published syntheses on trends in reproductive output (e.g., Gallaway et al. 2016a,b; Caillouet et al. 2016, 2018) it was clear that the present state of knowledge was insufficient to draw firm conclusions on the status of the Kemp's ridley population. Annual nest counts, the only index of the Kemp's ridley population, were steadily climbing prior to 2010 but continued recovery of the population has not been indicated. In fact, in the past two years large declines in nesting have been seen. Preliminary indications are that more than two times as many nests would be needed to reach the 25,000 nest benchmark that was set for downlisting. Whether this represents mortality in nesting females or reduced body condition so that fewer nests are laid is not known. Regardless, it means that reproductive output of Kemp's ridley has dropped. What will this mean for Kemp's ridley in the future? What are the implications for fishermen? Waiting to see what happens next year is not the answer. With the large drop

In the new Millenia, the evolution of digital technologies has radically changed the way we live and work. This revolution has also changed the demands that citizens, businesses, and other organizations have placed on the digital society. However, the Mississippi Gulf Coast faces a severe lack of well-trained IT workers. Gulf Coast Tech Fusion will focus on developing an IT workforce for economic expansion, innovation, and societal growth. Tech Fusion will bring together a dual focus within the CSET building: (1) provide IT training and (2) provide flexible facilities to develop IT solutions for the development and implementation of regional business technology solutions. and industry.

Gulf Coast Tech Fusion will provide to students requisite training in emerging technologies (e.g., Cybersecurity, Coding, Artificial Intelligence (AI), Virtual Reality (VR)/Augemented Reality (AR), and Simulation/Game Design) that could make the Gulf Coast region an international leader in the high-tech sector. This program would provide momentum to accelerate a trained IT workforce and opportunities for business and industry to upskill incumbent workers. For example, MGCCC is partnering with EON Reality to create a center of excellence for extended realities (XR); XR is an umbrella term for all immersive technologies, such as AR, VR, mixed reality (MR), and those that are still to be created. This program would help to develop the next generation of talent to develop these technologies, and it would provide support to companies to explore and develop training via XR. As for future-proofing, a push to identify a center of excellence to create AR and VR training is now critical. This would allow training to continue in spite of any external factors that may come requiring remote worker and/or social distancing.

Gulf Coast Tech Fusion will be housed in the Center for Security and Emerging Technology (CSET) "further leveraging a BP Restore project (i.e., CSET). The CSET building received partial funding in an earlier round of BP Restore projects, so this proposal includes the request to fund the remainder of the CSET building. Operating Tech Fusion in CSET will provide Mississippi Gulf Coast Community College (MGCCC) with a platform to conduct cutting-edge IT training and develop solutions for local

HSSM is seeking funds to construct a new facility on their property, which will serve as an education and community event location. Set in a nature-inspired landscape, the PAWS Exploratorium will provide an aesthetically pleasing venue at the juncture of 28th Street and Highway 49 and we will also get with the Gulf Coast Restoration Initiative to create a nature trail in conjunction with the new facility. This new area will focus on education and conservancy of all animals while also focusing on the human component of humanity-which is already at the center core of HSSM's mission and ingrained culture related to animal welfare and humanity.

This facility will provide an additional mission based attraction for families to visit while being complimentary to and not competitive with surrounding aquatic organizations. The facility will feature live engaging exhibits with animals such as turtles, snakes, opossums, raccoons, etc., enhanced interactive educational opportunities, children's activities, a small Re-Tail store, various nature trails for bird watching and a pollinator path. The Exploratorium will also be open and available to other animal welfare organizations, such as Wild at Heart Rescue and Audubon MS and can be a destination for several local summer camps such as the City of Gulfport Summer Camps and Lynn Meadows Vet Camp.

The facility will utilize existing HSSM land and will enhance current programs while also serving as a centrally located site for partner organizations. This new facility will perpetually support HSSM's lifesaving efforts and strive to educate the importance of animal welfare, preservation, conservation and humanitarianism. We will seek guidance from top architect consulters that have worked on tourist engaging projects in order to create an engaging and interactive experience for all attendees.

The aim of this project is to restore sea turtle populations in the Gulf of Mexico through satellite tracking of sea turtles to inform habitat use changes as it relates to changes in salinity of Mississippi Sound. Loggerhead, Kemp's ridley and green sea turtles are known to occur in Mississippi Sound and changes to freshwater flow will be likely to affect the extent and composition of habitat, either by changing salinity

The Secret Coast or Mississippi's Gulf Coast offers a mix of recreational activities that cater to many types of visitors and locals, alike. Man-made, public beaches, in Hancock, Harrison, and Jackson County account for nearly 56% of Mississippi's coastline and provide protection to seawalls and coastal roadways such as Highway 90. These beaches draw both day and overnight visitors. A 2017 study from Longwoods International found that 27% of overnight visitors and 25% of day-trippers visited the Mississippi Coast just to enjoy the beaches, far outranking the national norm. The beaches provide many different experiences including fishing, jet-skiing, aqua cycling, and sailing for people to enjoy. Moreover, the beaches are adjacent to other amenities including continued development, casinos, shops, restaurants, bases for U.S. Armed Forces, universities, hospitals, and active ports which offer a well-rounded holiday experience.

Just as these sandy oases attract visitors, they also provide essential habitat for beach-nesting and foraging species, including colonial seabirds, solitary shorebirds, and marine turtles. These species compete for space with recreational beach visitors and negotiate with sources of disturbance including aforementioned recreational activities but also naÃ¯ve actions such as children chasing birds or kite flying as well as allowing domesticated dogs off-leash which can destroy bird and turtle nests in a matter of seconds. The permitted use of personal fireworks on the beaches on July 4th can flush breeding bird species off nests, exposing eggs and chicks to the elements such as extreme heat as well as to predators. The unregulated shooting of fireworks can cause possible abandonment, while also creating a dangerous environments for people attending festivities at the beach.

Additionally, beach managers need to carefully balance efforts to clean the beach, which include the mechanized removal of trash and debris for people's enjoyment, while still providing this unique habitat essential for the health of beach-dependent species as well as the beach system itself. Maintenance equipment to keep the beaches clean can crush camouflaged bird eggs or buried turtle eggs. Migrating birds depend on minimal disturbance to feed to replenish fat stores to make long hemispheric journeys each spring and fall. Abating disturbance in wildlife breeding areas can lead to increased hatching success and survival of young birds and turtles. Moreover, many of Mississippi's beach-nesting species

This project will enhance NOAA's existing necropsy facility to expand sea turtle mortality and supplementary investigations, and meaningfully improve the collaboration through the in-person and remote participation of researchers and education staff in Mississippi and beyond. Data gathered from necropsies constitutes the most vital source of knowledge on mortality factors and sometimes represents the sole source of that information. Enhancements to the necropsy laboratory (e.g. AV technology for remote participation, ceiling-mounted examination lighting, floor drainage, safety upgrades, and height appropriate necropsy tables) would considerably improve the capacity of the facility to manage sea turtle necropsies in a sterile and collaborative environment. Upgrading the facility is a cost effective approach since it takes advantage of an existing structure. The modernized facility will serve as an important resource for the state Sea Turtle Stranding and Salvage Network by providing a collaborative, technologically advanced work environment for its constituent partners and organizations to conduct

NOAA Project ID# 14538: Objectives: This project is a solution based program developed to answer critical questions and provide informed data about the population, health and future of manatees in Mississippi. Work in close collaboration with Dauphin Island Sea Lab to increase Manatee research in MS using standardized methodologies. This will assist with knowledge of movement and occupancy patterns including identification of individuals, origins, seasonal dispersal and site fidelity, and functional movement modes of those individuals during a tracking period. Conduct MS annual health assessments with satellite telemetry to understand health, spatial distribution and movement.

Activities to be completed: Assist the Manatee Sighting Network based at DISL in AL with MS based manatee reporting, respond to manatee sightings as needed, provide public awareness and outreach at MSAQ and collaborate on annual MS health assessments, satellite telemetry and mark-recapture.

Expected outcomes: Years 2021-2025. Support MS manatee research and conduct annual health assessments.

NOAA Project ID# 14537: Objectives: Establish a long-term solution based program to answer critical questions and provide informed data about the population, health and future of bottlenose dolphins in the Mississippi Sound.

Activities to be completed: Conduct annual dolphin health assessments, an essential conservation management tool for free ranging dolphins. However, before annual health assessments can be conducted, it is necessary to obtain consistent baseline data using mark-recapture via photo-identification to analyze movement patterns, size and structure of populations, survival rates, abundance and birth/fecundity rates and determination of site fidelity. Using consistent boat based photo ID surveys with robust statistical analysis, population and stock assessments can be ascertained. Mark-recapture, behavioral observations, acoustical recording during boat based surveys, and genetic testing of skin biopsy samples will provide answers to the unknown site fidelity of MSS dolphins. Once satisfactory baseline data on population and site fidelity is collected, plan annual capture and release health assessments of dolphins in the MS Sound.

Expected outcomes: Years 2021-2025. Year-round boat based dolphin photo ID, acoustical recordings, collection, processing and genetic testing of skin biopsies. Year 2024-2025. Plan, secure permits and develop funding needs for annual dolphin health assessments.

Benefits: With an unknown population of a MMPA protected species such as the bottlenose dolphin, regulators are challenged when faced with making management decisions. Without having baseline

NOAA Project ID# 14536: Objectives: Utilize small unmanned aerial systems (sUAS) and sighting surveys to provide standardized monitoring, identify strandings, nesting frequency and site fidelity over the barrier islands of Mississippi. Increased monitoring, reporting and outreach efforts will reduce the year-to-year biases making stranding data more robust and useful for assessing recovery efforts. Develop a sea turtle nest monitoring program for Mississippi for the purposes of collecting baseline data that can be applied to a long-term conservation management plan.

Activities to be completed: This project will utilize a combination of sUAS flown by licensed operators under the direction of researchers and boat based sight surveys to provide a much needed, efficient and non-invasive method for monitoring remote barrier island beaches. The footage from the drone can be viewed in real-time and most strandings and crawls can be spotted while flying at an altitude of 15-30 m.

Expected outcomes: The boat based sUAS and sighting survey program will identify stranded sea turtles and sea turtle nest sites, the location will be marked with GPS and scientists will visit the sites for further analysis, processing, recovery of stranded animals. In lieu of a USFWS recovery permit, potential nest sites will not be disturbed but the location will be reported to USFWS, NPS (when applicable) and NOAA. Once a USFWS recovery permit is secured, nest sites will be staked and monitored by

NOAA Project ID# 14535: MSAQ will be Mississippi's first and only Association of Zoos and Aquariums (AZA) accredited facility. Our goal is to build and open a state-of-the-art sea turtle rescue, rehabilitation, and education (RRE) center that serves as an epicenter of local sea turtle rescue and rehabilitation. The RRE will be a combined use resource that reaches 350,000 guests annually. Establishing the RRE center on MSAQ's main campus will allow guests to experience daily rescue and rehabilitation operations first-hand, including intake, triage, and advanced medical procedures. Once turtles are rehabilitated, community focused events will be established to engage the public in re-introductions of sea turtles to the gulf coast waters.

Objective 1: Create infrastructure for a preeminent sea turtle rescue, rehabilitation, and education center in Mississippi

- Provide a foundation for a scalable rehabilitation and rescue operation with dedicated and expert staff to care for stranded sea turtles
- Space to rehabilitate a minimum of 30 turtles
-Increase capacity to receive and rehabilitate turtles from AZA partners and established rescue and rehabilitation facilities nationwide
-MSAQ's Animal Research Center (ARC) provides additional capacity for facility growth and can serve as an epicenter during emergency scenarios (environmental disasters, unusual mortality events, or mass stranding events)
- Establish educational opportunities for aquarium guests, school groups, students, and community members

Objective 2: Utilize RRE as ground zero for enhanced mortality investigations and provide early detection and response to anthropogenic threats and emergency events in Mississippi

-RRE's impact on injured turtles will help compensate for injuries that occurred due to the Deep-Water Horizon oil spill

NOAA Project ID#14533:The Nature Conservancy recommends a ""Phase 3"" of the Mississippi Sound Oyster Shell Recycling Program, that was initially funded as Activity #8 in the 2018 Mississippi State Expenditure Plan. This project would continue implementation of the Oyster Shell Recycling Feasibility Plan that will be undertaken in ""Phase 2"" of the before mentioned project. Project components would include continued collection of oyster shell resources, engagement and training with restaurants, development of promotional materials, and planning and potential implementation for expansion to other geographic areas within the state. A three year time period is recommended for this proposal as it would allow for a robust set of data and the establishment of self-sustaining funding streams. It is strongly recommended that this project be implemented with stakeholder input in the form of a program advisory team, that has representation from relevant economic and conservation business sectors.

This program will support the restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region through the collection and utilization of discarded oyster shells for oyster cultch placement in the Mississippi Sound. Additionally, this proposal will continue to add data in support of the economic sustainability analysis that will be completed in ""Phase 1"".

Oyster populations and subsequent harvests have decreased over time throughout the Gulf of Mexico as well as in the Mississippi Sound. There are several reasons scientists and managers have hypothesized to the lack of oyster populations including overharvesting, natural and anthropogenic disasters, water quality, as well as a reduction in oyster reef habitat. Oyster reef habitat is comprised of cultch. Cultch is a hard substrate often made up of oyster hash, shell, and other hard bottom features on which oyster larvae can attach. Managers often supplement the availability of hard substrates with additional cultch materials including limestone, crushed concrete, fossilized oyster shells, and oyster shells when available. Based on

The Mississippi Sound (MSS) is home to the nation's largest bay, sound, and estuarine (BSE) population of common bottlenose dolphins (Tursiops truncatus). The MSS serves as a nursery ground for newborn dolphin calves in the spring and summer months and provides vital foraging habitat for dolphins year-round. As a top predator, dolphins are an important sentinel species for the ecosystem. In addition, the fertile waters of the MSS also support a large recreational and commercial fishing industry and an oyster industry. The MSS is heavily impacted by freshwater inputs from large watersheds such as the Mississippi River, Pearl River, and Pascagoula River. In particular, the 2019 openings of the Bonnet CarreÌ•Spillway introduced a substantial amount of freshwater from the Mississippi River into the Mississippi Sound, which is not normally exposed or connected to this riverine system. During this year, dolphin mortalities increased by more than three times over the yearly average from 2014-2018. Other large ecological disasters such as the Deepwater Horizon (DWH) oil spill, hurricanes, and algal blooms also affect dolphins. Therefore, effective management of dolphin health in the MSS is critical for the viability of this important species in the Gulf of Mexico, and it requires science-based decision making and interventions from experienced and qualified experts to manage this resource in the context of the economically vital MSS.

To effectively and sustainably manage this vital species in the MSS over the next ten years, Mississippi State University College of Veterinary Medicine (MSU-CVM) and the Institute for Marine Mammal Studies (IMMS) have developed a comprehensive, science-based plan with the following objectives:

1)Determine the threats to dolphin health, including human interactions, in the MSS that result in strandings and mortalities.

2)Assess the environmental threats affecting dolphins and their habitat, particularly changes to water quality and salinity, pollutants, and prey availability in the natural habitats of dolphins in the MSS.

3)Estimate the abundance and distribution of the dolphin population in the MSS using line-transect methodology for stock assessments.

The Mississippi Sound (MSS) is home to the most critically endangered sea turtle in the world, the Kemp's ridley (Lepidochelys kempii), along with other endangered or threatened sea turtle species such as the loggerhead (Caretta caretta) and the green sea turtle (Chelonia mydas). Juvenile Kemp's ridley sea turtles utilize the MSS for development, foraging on blue crabs that are abundant in the MSS. The green sea turtle, omnivorous at the juvenile stage, forages on sea grass beds and fish prey in this area. Loggerhead sea turtles have been documented to nest on Mississippi beaches from as early as 1990 (Hoggard 1991). In addition, the fertile waters of the MSS support a large recreational and commercial fishing industry as well as an oyster industry. The MSS is heavily impacted by freshwater inputs from large watersheds such as the Mississippi River, Pearl River, and Pascagoula River, by large ecological disasters such as the Deepwater Horizon (DWH) oil spill, and by natural events such as hurricanes and algal blooms. Therefore, effective management of turtle health in the MSS is critical for the viability of these important species in the Gulf of Mexico, and it requires science-based decision making and interventions from experienced and qualified experts to manage this resource in the context of the economically vital MSS.

To manage this vital species effectively and sustainably in the MSS over the next ten years, MSU-CVM and IMMS have developed a comprehensive plan with the following objectives:

1)Conduct stranding response/rehabilitation and implement a systematic approach to identify threats to sea turtle health, including human interactions, in the MSS. This includes providing timely response to incidentally captured, stranded, and injured turtles on the Mississippi coast and a systematic approach to determining cause of death.
2)Assess the environmental threats impacting sea turtles and their habitat, including investigating changes to noise pollution, water quality, and pollutants in the habitats of turtles in the MSS.
3)Evaluate turtle movements, distribution, and habitat utilization using satellite tagging and fecal analysis.

Extension of sewer collection systems to underserved areas of Jackson County including Vancleave, Hurley, Three Rivers, & Helena Areas while allowing for the conversion of approximately 900 residences

Galloping technological change, combined with the COVID-19 pandemic, is transforming the global economy and posing a momentous opportunity for Mississippians. Mississippi Gulf Coast Community College (MGCCC) seeks to offer a "connection"•for citizens at risk of being stranded permanently on the wrong side of the educational divide "new ways to acquire skills and pick up the habits of lifelong learning necessary to succeed in the 21st century. As a primary provider of job-focused education and training, Gulf Coast Workforce Connect seeks to provide a facility that would serve as the connection for colleges and universities to serve the citizens of the Gulf Coast in Jackson County and offer premiere spaces for workforce training "bridging industry, high school, community college, and universities. This facility and the Gulf Coast Workforce Connect project would be located on MGCCC's Jackson County (JC) Campus; the project is an investment of $24,500,000.

The Gulf Coast's economic recovery is dependent, in part, on expanding opportunities to obtain bachelor's degrees in critical fields, which will also help to future-proof the region. The postsecondary freshman and sophomore years are covered by MGCCC. However, expanding new opportunities at the junior and senior level will offer greater depth, breadth, and choice to local citizens. For example, future engineers living on the Gulf Coast now have an affordable option for earning a world-renowned education close to home. Mississippi State University's (MSU) Bagley College of Engineering is now offering three Bachelor of Science degrees through a collaboration with Mississippi Gulf Coast Community College. Students can complete a two-year Associate of Science degree from MGCCC before enrolling in electrical, mechanical, or industrial engineering classes that will result in bachelor's degrees from MSU. These classes are currently offered on MGCCC's JC Campus by Bagley College faculty or through synchronous online delivery from MSU's Starkville campus. However, the popularity of the engineering programs has quickly outgrown the usable space on the JC Campus. These three engineering programs would represent the first three university degrees located in the Gulf Coast Workforce Connect facility, and this will lead the way to incorporate other college and/or university offerings in Jackson County. The research area in the new structure will help faculty continue to stay on

Senate Bill 2951 of the 2021 Mississippi Legislative Session through the MS Gulf Coast Restoration Fund appropriated $13,500,000 to assist Mississippi State University with the continuation of the Mississippi Cyber Center Initiative which in total is a $34.2 million project.

Initial funding of $3,500,000 was established in Senate Bill 2977 of the 2020 Mississippi Legislative Session through the MS Gulf Coast Recovery Fund. The initial phase consists of establishing/purchasing of equipment and software for a secure Cyber Range in collaboration with the MS Gulf Coast Community College (MGCCC) to assist Keesler AFB with training and educating approximately 8,700 of the Air Forces and Department of Defense cyber professionals each year. The initial phase will also establish, by purchasing equipment and software, a Cyber Forensics Center as part of the MS Cyber Center which is a vital component to address cyber capabilities and capacity for state agencies. Another part of this initiative is a Systems Operations Lab that will be established by MGCCC through a GEER Grant that will also support Keesler. The establishment of the Cyber Range, cyber forensics center and the systems operation lab will allow for the teaching of new classes at the MGCCC facility. This initial phase sets the foundation for the Mississippi Cyber Initiative (MCI) to be executed at the Mississippi Cyber center and other areas across the state. This initial phase will advance the goals of the MCI which include promoting economic development for the Gulf Coast region and the State, providing cyber workforce training and education, addressing complex cyber issues for the State and increasing public awareness through outreach. The initial phase has been started by defining specs for equipment and initiating the procurement process. The execution of the initial funding of $3.5 million which is part of the larger initiative should be completed by 03/31/2022.

The $13.5 million appropriation will be used as partial funding for the construction of the $30 million cyber center. A portion of this funding will be used for initial architectural, design and engineering costs to position this project as shovel ready and will be able to proceed once the remaining funds are secured. The remaining portion of the funds will be used to fully establish, design, construct, equip, build out and

Safety and security are now an important criterion for meeting planners, promoters, show managers and attendees for events that are held where large quantities of people can become targets. The purpose of this project would be to add to and convert all existing parking lot lighting to high efficiency and high intensity security lighting. In addition, we will incorporate a security camera system that will monitor all activity in our parking lots and on the extension of the Coliseum and Convention Center. We also will increase our inventory of walk-through metal detectors and wands for event security use. This will enable us to scan all guests entering the Coliseum & Convention Center when hosting multiple events at a time.

Mississippi Aquarium's goal is to build and open a state-of-the-art turtle rescue, rehabilitation, and education center that serves as an epicenter for the Gulf Coast turtle education, rescue, and rehabilitation efforts. The Center will be modeled after the successful Georgia Sea Turtle Center (https://gstc.jekyllisland.com/) located on Jekyll Island, Georgia, Loggerhead Marinelife Center (https://marinelife.org/) in Juno Beach, Florida, and The Turtle Hospital (https://www.turtlehospital.org/) located in Marathon, Florida.

Each of these is a stand-alone facility supported through a variety of revenue sources including a strong tourism effort. These centers are based in tourism sectors within their communities and have stimulated economic development in and around the area.

The Turtle Rescue Center (TRC) will be a support facility for the Aquarium to provide regional and national rehabilitation for turtles "a need that NOAA and US Fish & Wildlife have identified. The TRC will complement the Aquarium and the Aquarium's Aquatic Research Center (ARC) in developing a first-class attraction, science and research center, as well as a comprehensive educational facility. The educational opportunities will include K-12 programming, outreach, and field trip opportunities. In addition, the Aquarium's staff of professionals will be used to train future aquatic veterinarians in collaboration with state institutions and provide veterinary intern and extern rotations.

The Center will capitalize on the visitor attendance that comes to the Aquarium. First year attendance for the Aquarium is expected to surpass 350,000 visitors and we will take advantage of creating combined experiences, educational and field trip opportunities, and combined ticketing options.

Establishing the Turtle Rescue Center adjacent to the Aquarium's main campus will allow guests to experience daily rescue and rehabilitation operations first-hand, including intake, triage, and advanced medical procedures. Once turtles are rehabilitated, community-focused events will be established to

MH&LA "Mississippi Hotel & Lodging Association, headquartered in Biloxi, MS is a Non-Profit chartered in the State of Mississippi in 1930 to promote the common goals of the Lodging Industry throughout the State. MH&LA has been unable to hold its Annual Convention & Expo to the degree theretofore practiced due to the economic damages suffered by the Lodgings & Tourism businesses, and, consequently to MH&LA itself. With the adequate funding being requested, MH&LA proposes to once again host its Annual Convention & Expo on the Mississippi Gulf Coast in late Spring 2022 to the level and degree, serving to Educate, Train and Certification of the Lodgings and Tourism related businesses through the Educational Seminars (at the Convention and continuing throughout the Year). The Seminars would include but not be limited to (a) Presentations by the MS DOR (Department of Revenue)

MH&LA "Mississippi Hotel & Lodging Association, headquartered in Biloxi, MS is a Non-Profit Association chartered in the State of Mississippi in 1930 to promote the common goals of the Lodging Industry throughout the State. MH&LA proposes to re-introduce its MH&LA Lodging Package Program, including Charter Boats, Attractions, Museums, Events and Golf Courses whereby the Lodgings would form and promote Packages generating business to these Tourism entities on the Coast, many of which were significantly negatively impacted by the Environmental and Economic Damages as a result of the BP Deep Water Horizon Oil Spill and subsequent incidents. MH&LA has documented expertise and proficiency in operating the Package Program, based upon the success of its Golf Package Program which

Description

The Jackson County Economic Development Foundation is a private 501(c)(3) development corporation whose primary purpose is to address the economic development needs of Jackson County and its municipalities. Toward that end, the Foundation has identified workforce development as the number one issue facing not only the county, but also the state of Mississippi and the nation as a whole. Through comprehensive data analysis and field interviews, the Foundation has recognized the need to address workforce gaps within the county, to increase labor force participation rates, to provide clear career pathways for students and adult learners, and to increase the skills training of the county's labor shed.

The JCEDF proposes to meet these goals by developing a comprehensive workforce program of work, which will serve as the umbrella initiative for several components of a workforce strategy:

"¢ CAREER PATHWAYS: "Passion. Purpose. Paycheck."•This ongoing program provides career coaching in each of Jackson County's seven high schools along with a dynamic mobile application through Merit which features a resume component and TikTok-style videos that introduce high school students to real-time employees of local employers such as Chevron, Ingalls, and others. While funding for this program has been secured for one year, the JCEDF is requesting additional funding to continue this program beyond its first year. Proposed budget: $750,000.

"¢ WORKFORCE GAPS & LABOR FORCE PARTICIPATION RATES: The JCEDF proposes to shore up gaps in the current workforce pipeline by targeting specific populations and Census tracts where labor force participation rates are lowest. These populations include TANF-eligible individuals, those with a minor criminal record, high school dropouts, minorities such as non-native English speakers and women, and others. The JCEDF will partner with organizations such as community action agencies, Mississippi Gulf Coast Community College, and other nonprofits to identify candidates for this program.

Description

The Jackson County Economic Development Foundation is a private 501(c)(3) development corporation whose primary purpose is to address the economic development needs of Jackson County and its municipalities. The Jackson County Economic Development Foundation is planning for a major facility expansion at the Trent Lott International Airport. This expansion will consist of developing a facility to support a program(s) to be located in Moss Point, Jackson County, Mississippi. The estimated cost of the

The Mississippi Coast Model Railroad Museum Project (Tourism/Economic Development/Infrastructure)

Requesting: $1.5 M

The Mississippi Model Railroad Museum project is being developed at the intersection of Hewes Avenue and Pass Road on a piece of property that was once plaits #8-18 in the neighborhood of Manhattan Addition, established in 1905. The project supports the Tourism, Economic Development and Infrastructure categories of the RESTORE emphasis.
The current property at 615 Pass Road, sits mostly in the Pat Harrison Waterway in Harrison County on the corner of the first intersection guests typically stop at as they leave the Gulfport Airport going toward the beaches. Transforming the existing property into the world-class model railroad museum it can become will attract tourists, build economic development in the area, and can also spark revitalization interest of the established businesses currently there.

But this museum will not only stimulate economic development or attract tourists and locals, it will also educate guests that visit. In keeping with the mission of the museum, visitors will learn about the history of trains in Mississippi and in the United States, their value in our past communities, and those in the present. Additionally, this museum will also provide an attraction that brings families together to laugh and learn: parents and children, grandparents and children, and teachers' students.
The museum, however, will not stop with those elements. Another element that will be strongly incorporated into the experiences throughout the museum will introduce Science, Technology, Engineering, and Math (STEM) activities to encourage guests to explore STEM areas through modeling concepts.
The funding request from RESTORE would support the $1.5M needed to design, fabricate, and install STEM interactive displays throughout the museum. Those displays would highlight STEM educational

South Mississippi Small Business Recovery Program:

The following is a submission for a $5.5 million dollar request of the Governor's Gulf Coast Advisory Committee of the RESTORE Act Direct Component and Spill Impact.

Small businesses in South Mississippi were greatly affected by the impact of the BP Oil Spill and in dire need of assistance and support. Many lack a strong relationship with a traditional bank and are in need of alternative yet affordable funding to grow their businesses.

Other Small Businesses are in need of marketing support to grow their business and/or to build their brand and awareness or to relocate to a larger space to continue to grow and hire additional employees.

This proposal is a joint project of the Southern Mississippi Planning and Development District, Inc. and The Mississippi Gulf Coast Chamber of Commerce. Both entities will work together and coordinate between the $5.5 million Small Business Recovery Program that will feature a $4.65 million Small Business Loan Program as well as $850,000 Small Business Grant Program. All funds will be managed by SMPDD following any and all RESTORE FUNDS guidelines.

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The Gulf Sturgeon (Acipenser oxyrinchus desotoii) an anadromous fish indigenous to the Northern Gulf of Mexico, with several spatially distinct populations from the Suwanee River in Florida to the Pearl River in Louisiana. The species is listed as threatened under the Endangered Species Act and has been under a recovery/management plan since 1995 with the goal of initiating the delisting process by 2023. Unfortunately, the population remains low most likely due to habitat and water quality degradation in both the spawning and feeding areas. Restoration efforts focused on rebuilding the stock of this threated species is paramount for the future recovery. The Mississippi Department of Marine Resources (MDMR) in collaboration with the, University of Southern Mississippi, Mississippi State University, the U.S. Fish and Wildlife Service, and the USACE Engineer Research and Development Center Environmental Laboratory is proposing to develop a stock enhancement program for Gulf Sturgeon using streamside larval/egg rearing in conjunction with hatchery raising techniques. The project is being proposed is proposed in two phases:

Phase I would evaluate the feasibility of collecting Gulf Sturgeon eggs and post-larval/larval Gulf Sturgeon from near spawning sites of the Pascagoula River drainage and attempting to rear those larvae into juveniles at the MDMR's Lyman Fish hatchery. Step one in this phase would be accomplished by refining the methods to locate and capture the larval Gulf Sturgeon in historically known spawning areas in the Bouie and Chickasawhay rivers. Once the capture technique is deemed successful, the eggs and larvae will be transported to the hatchery where they would be raised to a specific size that would be viable for release. Sturgeon eggs/larvae would be reared with water collected from near the spawning sites. Genetic analyses will be used to determine the parentage of collected/reared Gulf Sturgeon. Important to the rearing process is the establishment of when larval fish imprint or internally record water chemistry and odor cues that will later be used to help them return to the spawning grounds as

Background: The Institute for Marine Mammal Studies Center for Marine Education and Research (IMMS-CMER) is a premier marine education and conservation facility that offers a variety of educational programs designed to meet diverse educational and outreach needs. This mission has been expanded to include Ocean Adventures, a public display facility featuring interactive programming with dolphins, sea lions, birds, snakes, alligators, rays, and sharks. Since opening in 2018 Ocean Adventures has attracted over 100,000 visitors annually. Current educational programs consist of field trips, student summer camps, dozing with dolphin programs, talks and presentations, hands-on interactions with marine mammals, swimming with and feeding sting rays and sharks, interactions with tropical birds, interactions with snakes and alligators, college courses led by our experienced scientists and an opportunity to learn about marine mammals, various fish species, aquatic turtles, snakes, sea turtles and the conservation and research work conducted at IMMS. This exposure is critical in fostering an educational foundation for local residents and visitors to the Mississippi Gulf Coast, to assist them in understanding the importance of conserving the Mississippi Sound and its marine life.

The Mississippi Sound is home to the largest population of bottlenose dolphins in the U.S., as well as critical habitat for the Kemp's ridley sea turtle. Thus, it is critical that Gulf Coast residents and visitors be educated regarding the issues facing this region. Additionally, Mississippi students consistently score low on national tests for STEM fields. By improving and expanding upon the framework that IMMS and Ocean Adventures have established by bringing low income and at-risk students to the facility, and enhancing the organization's outreach capabilities, this investment would impact not only Mississippi's environment, but also its children. Finally, projects aimed at improving local understanding regarding

MASGC, together with partners The Pew Charitable Trusts and The Nature Conservancy, propose this MASGC Coastal Resilience Project to strengthen the resiliency of the Back Bay by addressing coastal erosion. Satellite imagery shows that the area loses up to 12 inches of marsh annually due to impact from high energy waves and other threats from impacts due to climate change. The MASGC Coastal Resilience Project will develop a plan, design, and implement a natural shoreline enhancement and protection project (i.e., a living shoreline) including the shorelines of Hiller Park, the Gulf Coast Health Care VA facility, and a portion of Keesler AFB west of its marina for a total project scope of approximately 12,000 linear feet. The living shoreline project will occur on state-owned property below the mean high tide line along the Back Bay. The MASGC Coastal Resilience Project would use segmented rip rap breakwaters (offshore) and plant marsh vegetation (onshore) to reduce wave energy

Audubon Delta proposes to enhance beach management to restore invertebrate infauna and shorebird foraging habitat, particularly for the threatened piping plover. This effort will cost approximately $442,000 over three (3) years. We believe this matches the MS TIG RP4 program goals of restoring and enhancing dunes and beaches, protecting coastal habitats, and promoting environmental stewardship, education, and outreach.

Migratory shorebirds and seabirds spend the majority of their annual cycle on their wintering grounds (Elliot-Smith and Haig 2020), but for many species, conservation efforts are heavily geared toward improving nest and chick survival on the breeding grounds (e.g., Melvin et al. 1992, Neuman et al. 2004, Burger et al. 2010). However, population growth rates for some shorebird species including Piping Plover (Charadrius melodus) are more sensitive to changes in adult survival rates than to changes in breeding productivity (Plissner and Haig 2000, Calvert et al. 2006), and conditions experienced on migratory stopover and wintering grounds can reduce adult survival rates (Roche et al. 2010, Gibson et al. 2018). Furthermore, sublethal events and conditions experienced during winter and migration can result in carryover effects that reduce breeding productivity in the subsequent season (Swift et al. 2020). Thus, understanding ecological factors contributing to survival and breeding productivity in connection with time spent in the wintering grounds is critical.

This project proposes to 1) implement and test the efficacy of beach management techniques to improve habitat quality for Piping Plovers, with Snowy Plovers and Black Skimmers as secondary beneficiaries; and 2) undertake a study to characterize food availability for Piping Plovers across a range of sites in order to inform future restoration and management. Beach management activities will be geared toward reducing human disturbance (which will also benefit Snowy Plovers and Black Skimmers) and enhancing food availability (which will also benefit Snowy Plover).

Goal: Protect and restore migratory stopover and winter habitat for Piping Plover, Snowy Plover, and

Audubon Delta proposes to create a comprehensive, bird-based "Coastal Education and Recreation"• program. This effort will cost approximately $2 million over four (4) years. This program would fulfill the goals of MS TIG RP4 through enhancing public access to natural resources for recreational use, enhance recreational experiences, and promote environmental stewardship, education, and outreach.

Coastal birds were impacted by the oil spill in a variety of ways, some of which persist to this day. The first three restoration plans have supported the stabilization and protection of many coastal bird species but our research indicates that there is much more work to be done. With the release of RP4's guidelines, Audubon believes this is the perfect moment to advance bird conservation through a comprehensive education and recreation plan that will greatly improve public understanding and appreciation for coastal birds in Mississippi.

Nearly all threats experienced by coastal species are in some way connected to human behavior, whether it's from direct disturbance of walking or driving through colonies, to summer fireworks displays, to the broader threat of climate change and sea-level rise. These are occurring as coastal birds are still recovering from population declines experienced over the past ten years. The Audubon Coastal Stewardship Program provides many protections against these threats but one of the most effective ways of supporting our coastal birds is through fostering understanding and appreciation within our local communities. Conservation efforts will improve as more people understand, respect, and support the

NOAA Project ID# 14808 This project will focus on the removal of goats, dogs, cats, and potentially rats from Navassa. It will involve a preliminary trip to determine densities of target species as well as a total of as many as four trips to conduct the actual eradication of the first three species. Removal of these species will be accomplished through hunting and trapping. Because rats are present on the island, during these visits an assessment of the status of the rat population will be conducted. If determined to be feasible, eradication will be undertaken, potentially involving aerial application of rodenticide pending environmental evaluation and compliance.

The Navassa NWR was established in 1999 and is administered as part of the Caribbean Islands National Wildlife Refuge Complex. The island itself is approximately 500 ha in size but the refuge also includes marine habitat within a radius of 12 nautical miles. The island's vegetation is evergreen woodland/forest comprised of four main tree species. A second major habitat is the fan palm forest that occurs in stands throughout the island. Historically, the island supported a herpetofauna that consisted of 8 endemic reptiles, of which four species are extant. Fifty-eight species of birds have been recorded for Navassa. The island is important for breeding seabirds, in particular the Red-footed Booby (Sula sula), the Magnificent Frigatebird (Fregata magnificens), brown booby (Sula leucogaster), and the White-tailed

Pearl River Community College (PRCC) is a public institution committed to providing quality educational and service opportunities for all who seek them. PRCC is requesting $4 Million in funding from the Mississippi Department of Environmental Quality (MDEQ) RESTORE Act for equipment and program needs to support the PRCC Hancock Aviation Aerospace Workforce Academy to enhance workforce training capacity and benefit the economy of the Gulf Coast Region.

PRCC is constructing the Hancock Aviation Aerospace Workforce Academy in Kiln, MS located adjacent to Stennis International Airport, Stennis Space Center and Hancock High School Career & Technical Center, which will include a 36,000 square foot academy and an 18,000 square foot hangar. The purpose of this project is to bridge the divide between the existing education opportunities to that of the aviation, aerospace and workforce economies. This academy will bring together knowledge, training and education to create a competitive edge that cannot easily be matched by developing a career readiness

LOC_COUNTY	WORKFORCE DEVELOPMENT, RESEARCH & EDUCATION	INFRASTRUCTURE	INFRASTRUCTURE BUDGET PCT	TOURISM	SEAFOOD	SMALL BUSINESS	ECONOMIC DEVELOPMENT	ECO RESTORATION
Hancock Harrison, Jackson	Yes	No		No	No	No	No	No
Hancock Harrison, Jackson	Yes	No		Yes	No	No	No	No

Harrison	Yes	Yes		Yes	No	No	Yes	Yes
Harrison	Yes	No		Yes	No	No	No	Yes
Harrison	Yes	No		Yes	No	No	No	Yes

Jackson	Yes	No		No	No	No	No	No
Harrison	Yes	Yes		No	No	No	No	Yes

Harrison	Yes	Yes	5000000	Yes	No	No	Yes	No
Harrison	Yes	Yes		Yes	Yes	Yes	Yes	No

n/a	Yes	No		No	Yes	No	No	No
Hancock, Harrison, Jackson	Yes	No		Yes	No	No	Yes	Yes

Harrison	Yes	Yes	100	No	No	No	Yes	No
Harrison	Yes	Yes	100	Yes	No	No	Yes	No
Harrison	Yes	Yes	100	No	No	No	Yes	No
Harrison	Yes	Yes	100	No	No	No	Yes	No

Harrison	Yes	Yes	100	Yes	No	No	Yes	No
Harrison	Yes	Yes	100	No	No	No	Yes	No

Harrison	Yes	Yes		Yes	No	No	No	Yes
Hancock	Yes	No		No	No	No	No	Yes

Hancock, Jackson, Harrison	Yes	Yes	60	No	Yes	No	No	Yes
Hancock, Harrison, Jackson	Yes	No		No	No	No	No	Yes

Hancock	Yes	No		Yes	Yes	No	No	Yes
Hancock	Yes	No		Yes	Yes	No	Yes	Yes
Hancock	Yes	Yes		Yes	Yes	No	Yes	No
Hancock	Yes	Yes		Yes	Yes	No	Yes	No
Harrison	Yes	Yes	20	Yes	No	No	Yes	No

Harrison	Yes	Yes	30	Yes	No	No	Yes	Yes
	Yes	No		No	Yes	No	No	Yes

Pearl River	Yes	No		No	No	No	No	Yes

Harrison	Yes	Yes		Yes	No	No	Yes	No

	Yes	Yes		Yes	No	Yes	Yes	No
Jackson	Yes	Yes	62	No	No	Yes	Yes	Yes

Harrison	Yes	Yes	60	Yes	Yes	No	No	Yes

George, Harrison, Forrest, Pearl River, Jackson, Mobile, St Tammany, Stone, Hancock	Yes	Yes	81	Yes	No	Yes	Yes	No
Hancock,Harrison	Yes	Yes	80	No	No	Yes	Yes	Yes

Jackson	Yes	Yes	100	Yes	No	No	Yes	No
Jackson	Yes	Yes	100	Yes	No	Yes	Yes	No

Jackson	Yes	Yes	70	Yes	No	Yes	Yes	No
Hancock	Yes	Yes		Yes	Yes	Yes	Yes	No

Harrison County, Hancock County, Jackson County	Yes	No		No	No	No	No	Yes

	Yes	Yes		No	No	No	No	No
	Yes	No		No	No	No	No	Yes
	Yes	No		No	No	No	No	No

Jackson	Yes	No		No	No	No	Yes	No
George,Harrison,Jackson,Hancock,Mobile,St Tammany,Stone,Pearl River	Yes	Yes		No	Yes	Yes	Yes	Yes

Hancock,Stone,Jackson,Pearl River,George	Yes	No		No	Yes	Yes	Yes	No
Hancock,Jackson,Harrison	Yes	No		No	Yes	Yes	Yes	No
Hancock,Jackson,Harrison	Yes	No		No	Yes	Yes	Yes	No
Hancock,Jackson,Harrison	Yes	Yes		No	Yes	Yes	Yes	No

Hancock,Jackson,Harrison	Yes	Yes		No	Yes	Yes	Yes	No
Hancock,Jackson,Harrison	Yes	No		No	Yes	Yes	Yes	No
Hancock,Jackson,Harrison	Yes	Yes		Yes	Yes	Yes	Yes	No
Hancock,Jackson,Harrison	Yes	Yes		No	Yes	No	Yes	No
Hancock	Yes	Yes		Yes	No	No	Yes	No

Harrison,Jackson	Yes	Yes		No	Yes	Yes	Yes	No
Harrison	Yes	No		No	Yes	No	Yes	No
Jackson	Yes	Yes	17	No	Yes	No	Yes	No

Harrison	Yes	No		Yes	No	No	No	Yes
Harrison	Yes	No		Yes	No	No	No	Yes

	Yes	Yes		Yes	No	Yes	Yes	No
Jackson,Mobile	Yes	No		Yes	No	No	No	Yes

Jackson,Harrison	Yes	No		Yes	No	No	No	Yes
Harrison	Yes	No		Yes	No	No	No	Yes

	Yes	Yes		No	No	No	No	No
	Yes	Yes		No	No	No	Yes	No
	Yes	Yes		No	No	No	No	No
	Yes	Yes		No	No	No	No	No
	Yes	No		No	No	No	No	Yes

	Yes	No		No	No	No	No	Yes
Rankin, Hinds, Copiah, Simpson, Lawrence, Marion, Pearl River, Hancockt Tammany,Hancock	Yes	No		No	No	No	No	Yes

	Yes	No		No	No	No	No	No

	Yes	No		No	No	No	No	No
Harrison	Yes	Yes		Yes	No	No	Yes	Yes

George	Yes	No		Yes	No	Yes	No	Yes
	Yes	No		No	No	No	No	No

Harrison,Jackson	Yes	Yes		Yes	No	No	Yes	Yes
	Yes	No		No	No	No	No	No
Jackson	Yes	Yes		Yes	No	No	Yes	Yes

	Yes	No		No	No	No	No	No
Jackson,George	Yes	No		Yes	No	Yes	No	Yes

George	Yes	No		Yes	No	Yes	No	Yes
Pearl River	Yes	No		Yes	No	Yes	No	Yes
Hancock,Harrison	Yes	Yes		Yes	No	No	Yes	Yes

	Yes	No		No	No	No	No	No

	Yes	No		No	Yes	No	No	No
Harrison, Hancock and Jackson counties	Yes	No		No	No	No	No	No
Harrison, Hancock and Jackson counties	Yes	No		No	No	No	No	No

Harrison, Hancock and Jackson Counties	Yes	No		No	No	No	No	No
Harrison, Hancock and Jackson	Yes	No		No	No	No	No	No
Jackson, Harrison, and Hancock Counties	Yes	No		No	No	No	No	Yes
Harrison County	Yes	Yes		No	No	No	No	No

Jackson, Harrison, Hancock	Yes	No		No	No	No	No	No
Coastal counties in MS and AL	Yes	Yes		No	No	No	No	No
Hancock	Yes	Yes		Yes	No	No	Yes	No

Harrison	Yes	Yes		Yes	Yes	No	Yes	Yes
Harrison	Yes	Yes	83	No	No	No	Yes	No

Harrison	Yes	No		No	No	No	Yes	No
Pearl River County	Yes	Yes		No	No	Yes	Yes	No
Harrison, Jackson, Hancock	Yes	Yes	10	No	No	No	No	No

Harrison	Yes	No		Yes	Yes	Yes	Yes	Yes
Harrison	Yes	Yes	100	No	Yes	No	Yes	No

Pearl River	Yes	Yes	100	Yes	No	No	Yes	No
George,Harrison,Washington,Orleans,Perry,Forrest,Pearl River,Jackson,St Tammany,Stone,Hancock,Mobile	Yes	Yes	72	Yes	Yes	Yes	Yes	No

Harrison	Yes	No		Yes	Yes	Yes	Yes	Yes
Harrison	Yes	Yes	60	No	No	No	Yes	Yes

Hancock	Yes	Yes	100	Yes	No	No	Yes	No
Hancock,Jackson,Harrison,	Yes	No		No	No	No	Yes	No
Harrison	Yes	Yes	75	Yes	Yes	No	Yes	No
Harrison	Yes	Yes		Yes	No	No	Yes	No
Harrison	Yes	Yes		No	No	No	Yes	No
Harrison	Yes	Yes		Yes	No	No	Yes	No

Harrison	Yes	Yes		Yes	No	No	Yes	No
Harrison	Yes	Yes		Yes	No	No	Yes	No
Harrison	Yes	Yes		Yes	No	No	Yes	No
Hancock,St Tammany	Yes	No		Yes	No	No	No	No

HARRISON, JACKSON, HANCOCK	Yes	Yes		Yes	Yes	Yes	Yes	No
Jackson	Yes	Yes	70	Yes	No	Yes	Yes	No

Harrison	Yes	Yes	75	No	No	No	Yes	No
Harrison	Yes	Yes	85	No	No	No	Yes	No

Hancock,Stone, St Tammany,Mobile,Jackson,Forrest,Washington,Harrison,George,Perry,Pearl River	Yes	No		No	No	No	No	Yes
Hancock	Yes	Yes	50	Yes	No	No	Yes	No

	Yes	No		No	No	No	No	No
	Yes	No		No	No	No	No	No

	Yes	No		No	No	No	No	No

Harrison	Yes	No		No	No	No	No	No
	Yes	No		No	No	No	No	No

	Yes	No		No	No	No	No	No
	Yes	No		No	No	No	No	No

	Yes	No		No	No	No	No	No

	Yes	No		No	No	No	No	No
	Yes	No		No	No	No	No	No

	Yes	No		No	No	No	No	No
Harrison	Yes	No		No	No	Yes	Yes	No

Harrison	Yes	Yes	90	Yes	No	Yes	Yes	No
Jackson,Hancock	Yes	No		No	No	No	No	No

Harrison,Jackson,Hancock	Yes	No		Yes	No	No	No	Yes
Jackson	Yes	Yes		No	No	No	No	No

Harrison	Yes	No		No	No	No	No	No
Harrison	Yes	No		No	No	No	No	No

Jackson	Yes	No		No	No	No	No	No
Harrison,, Jackson, Hancock	Yes	Yes		No	No	No	No	No

Harrison	Yes	No		No	No	No	No	No

Harrison	Yes	No		No	No	No	No	Yes

Harrison	Yes	No		No	No	No	No	Yes
Jackson	Yes	Yes	100	Yes	Yes	No	Yes	No

Jackson	Yes	Yes	100	No	No	No	Yes	No

	Yes	Yes		Yes	No	Yes	Yes	No
Harrison	Yes	Yes	100	Yes	No	No	Yes	No

Harrison	Yes	Yes		Yes	No	No	Yes	No
Harrison	Yes	No		Yes	No	Yes	Yes	No
Hancock,Mobile,Jackson,Pearl River,Harrison	Yes	No		Yes	Yes	Yes	Yes	No

Jackson	Yes	No		No	No	No	Yes	No
Jackson	Yes	Yes	100	No	No	No	Yes	No

Harrison	Yes	Yes		Yes	No	No	Yes	No

Hancock,Stone, St Tammany,Mobile,Jackson,Pearl River,Perry,Washington,Harrison,George	Yes	No		No	No	Yes	Yes	No

Jackson,Hancock,Mobile,Harrison	Yes	No		No	No	No	No	No
	Yes	No		No	No	No	No	Yes

Harrison	Yes	No		No	No	No	No	No
Harrison,Hancock	Yes	No		No	No	No	No	Yes

Hancock,Mobile,Jackson,Harrison	Yes	Yes	5	No	No	No	No	No
	Yes	No		No	No	No	No	Yes

Hancock	Yes	No		No	No	No	Yes	No

ESTIMATED COST	FUNDING AVAILABLE
2800000	0
2000000	0

1000000	0
685000	0
1750000	0

303000	0
500000	50000

0	0
7549904	0

2000000	0
9500000	0

5200000	0
5000000	0
3500000	0
650000	0

15000000	0
10000000	0

13000000	0
5500000	0

2000000	0
5000000	0

4600000	0
5000000	0
500000	0
500000	0
6000000	0

15000000	0
120000	0

590200	0

1.2E+08	14000000

5000000	0
650000	0

500000	25000

57000000	0
6732000	0

30000000	0
10000000	0

3000000	0
230000	0

2585000	0

5000000	0
1000000	0
300000	0

4663914	0
300000	50000

1000000	50000
1000000	50000
10000000	0
750000	50000

250000	0
250000	0
250000	0
2000000	0
8000000	0

8400000	8400000
300000	0
290000	0

0	0
0	0

323000	75000
0	0

0	0
3000000	0

0	0
60000000	0
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4000000	0
2000000	0

200000	20000
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2000000	0
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2000000	0
1000000	0

0	0

16	0
540000	0
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50000	0
656000	0
175000	0
3650000	0

800000	0
1500000	0
2000000	0

25	431000
60000000	0

30000	3500
500000	0
5000000	0

0	0
15700000	500000

9700000	0
3250000	0

0	0
2080000	0

7627318	766500
1500000	500000
2000000	0
1750000	0
1000000	0
150000	0

2500000	0
450000	0
270000	0
2006124	0

100	0
2500000	900000

4950000	0
1500000	77000

30000000	0
2000000	0

5500000	0
1500000	0

3670000	0

23825000	0
1000000	0

3200000	0
1500000	0

1200000	0

18700000	6400
15000000	0

250000	0
7000000	3000000

1123500	224700
1271000	0

330000	0
150000	0

1000000	0
3000000	0

2000000	0
4000000	600000

650000	0

0	0

0	0
4500000	0

24500000	0

34.2	17.7
1400000	280000

5500000	0
200000	0
250000	0

3250000	0
10000000	0

8500000	4100000

5500000	5000000

1300000	0
300000	0

6000000	0
422000	0

2030000	0
1500000	0

4000000	11595000