LARGE-SCALE ECOSYSTEM RESTORATION
GREEN JOBS TO RESTORE ECOLOGICAL INFRASTRUCTURE
CONTRACT-READY PROJECTS

Large-scale ecosystem restoration is critically important for fish and wildlife, for protecting communities, for providing clean water, and for improving economies that rely on healthy natural systems. The importance of restoration for communities was made tragically clear when Hurricane Katrina slammed into the Gulf Coast. Louisiana's coastal wetlands were so degraded they could not protect New Orleans from Katrina's fury.

Across the country, centuries of exploitation and re-engineering are pushing major aquatic ecosystems to their tipping point where they may no longer be able to support the people, fish, and wildlife that rely on them. In the face of the already significant losses to healthy rivers, wetlands, and coasts, it is more essential than ever that the restoration mission of the U. S. Army Corps of Engineers be elevated to a national priority to ensure that aquatic ecosystem restoration projects are given the same—or higher—priority as Corps flood protection and navigation projects.

The added impacts of sea level rise, rising water temperatures, salt water intrusion, invasive species, and the increasing frequency and intensity of extreme weather events, all being exacerbated by global warming, are devastating already vulnerable aquatic ecosystems even as it has become clear that these systems are vital for buffering the impacts of climate change. Our Nation must take action now to ensure these systems are preserved for generations to come.

Our Nation has a long history of successfully planning and constructing large-scale civil works projects for navigation and flood control, with the unintentional consequence of damaging our Nation's water resources. We now have the opportunity and obligation to focus our national resources on restoring and repairing our damaged ecosystems. The Army Corps of Engineers' ability to engineer large water projects lends itself to planning and implementing comprehensive restoration projects. The Corps must move restoration projects forward expeditiously and efficiently if our aquatic ecosystems are to continue to provide for our children and grandchildren.

<u>Other Federal Agencies:</u>

- Department of the Interior
- Council on Environmental Quality
- Department of Agriculture
- Environmental Protection Agency
- National Oceanic and Atmospheric Administration
- Department of Transportation

<u>Everglades Restoration</u>

The protection and restoration of America's Everglades, once a web of marsh and prairie covering 4,000 square miles, is far behind schedule. Continued delays will further endanger the River of Grass and fresh drinking water supplies for South Florida residents, which are under siege from increasing development and the growing threat of global warming. Funding these Everglades projects now will help save a national treasure and provide an immediate and substantial boost to the economy. Everglades restoration projects will create **thousands of jobs** in such industries as engineering, construction, nurseries, and material supplies. The following projects are authorized and ready for immediate construction.

EVERGLADES RESTORATION FEDERAL CAPABILITY	FY09	FY10
Kissimmee River Restoration (WRDA 1992)[1]	$31,015,000	$40,000,000
C-111 (WRDA 1996)[2]	$4,500,000	$25,000,000
Comprehensive Everglades Restoration Plan Design (WRDA 2000)[3]	$64,000,000	$64,000,000
Stormwater Treatment Area 1 East/C-51 (WRDA 1996)[4]	$2,000,000	$17,000,000
Modified Water Deliveries to Everglades National Park [Mod Waters 1989 (P.L. 101-229)][5]	$26,700,000	$50,000,000
Critical Projects (WRDA 1996)[6]	$3,797,000	$5,000,000
Indian River Lagoon – South (CERP) (WRDA 2007)[7]	$15,000,000	$38,700,000
Picayune Strand (CERP) (WRDA 2007)[8]	$25,000,000	$31,000,000
Site 1 Impoundment (WRDA 2007)[9]	$0	$25,000,000
TOTAL	**$172,012,000**	**$295,700,000**

[1] All lands needed to complete project have been acquired—a total of 102,061 acres. Phase I construction was completed in 2001, reestablishing continuous water flow. When restoration is complete in 2011, more than 40 square miles of river-floodplain ecosystem will be restored including almost 20,000 acres of wetlands and 46 miles of historic river channel. Ten of twenty two miles of canal backfilling has been completed.

[2] Project will restore natural hydrologic conditions in Everglades National Park, including Taylor Slough, eastern panhandle areas, and Florida Bay, while maintaining existing flood protection to the east.

[3] The Comprehensive Everglades Restoration Plan provides a framework and guide to restore, protect and preserve the water resources of central and southern Florida, including the Everglades. It covers 16 counties over an 18,000-square-mile area and centers on an update of the Central & Southern Florida (C&SF) Project.

[4] Project will improve water quality of flows to Loxahatchee National Wildlife Refuge by capturing and treating water discharged from the Everglades Agricultural Area.

[5] Project will restore natural hydrologic conditions in Everglades National Park, which were altered by the construction of roads, levees, and canals. It is one of many foundation projects for the Comprehensive Everglades Restoration Plan, including Tamiami Trail Modifications.

[6] Project will develop specific water quality related projects that are essential to the restoration of the Everglades.

[7] Project will restore the southern Indian River Lagoon watershed, part of the most diverse estuary in the United States, by reducing canal discharge, storing more water on land, returning a more natural water flow to the lagoon and estuary, removing 7.9 million cubic yards of muck, and restoring upland areas including the Allapattah Natural Storage Area.

[8] All lands needed to complete Picayune Strand Restoration have been acquired – approximately 55,000 acres. Portions of the Prairie Canal have been filled in, along with the first phase of road removal, yielding 13,000 acres of restored area to-date. Design is under way for the levees, canals, pump stations and roads. The project will restore and enhance the wetlands in Picayune Strand (Southern Golden Gate Estates) and in adjacent public lands by reducing over-drainage and providing a natural and beneficial sheetflow of water to the Ten Thousand Islands National Wildlife Refuge.

[9] Project will improve hydroperiods and hydropatterns in Loxahatchee National Wildlife Refuge, WCA 2A, and the estuarine area at the mouth of the Hillsboro Canal by capturing and storing excess water currently discharged via the canal to the Intracoastal Waterway.

Mississippi River Delta/Coastal Louisiana Restoration

Ensuring an economically and environmentally sustainable coastal Louisiana is an urgent and vital task for the nation as a whole. Action is needed now to jump-start the bold coastal wetlands restoration needed for this sustainable future, and to right the wrongs perpetrated in the wake of Katrina. A comprehensive protection strategy must include restoration of the "horizontal levees" - formed by barrier islands and coastal wetlands. To restore this first line of defense, we must act quickly to get sediment into the marshes and rebuild land.

Where the Mississippi River meets the Gulf of Mexico it forms a complex of deltaic estuaries that are ecologically unique and vitally important to the economic, environmental, and the security-related concerns of the gulf region and its citizens. The swamps and marshes that previously covered thousands of square miles of the Mississippi delta are disappearing at an alarming rate primarily because these estuaries have been isolated by levees and canals from receiving Mississippi River sediments while sea level rises and the land sinks. The loss of more than 2,000 square miles of wetlands through the years has led to a dramatic decrease in the natural protection afforded by wetlands and barrier islands to coastal cities such as New Orleans and Houma. The added threats posed by rising surface water temperatures, salt water intrusion, invasive species, and the increasing frequency and intensity of extreme weather events, all exacerbated by global warming, make clear the urgent need for coastal restoration and conservation as an integral portion of the rebuilding of New Orleans and the Gulf Coast. It is necessary to appropriate funds accordingly.

Funding of restoration at the level requested below will provide immediate economic stimulation, including creation of from 30,000 to 50,000 jobs. Such funding will also begin to put the gravely compromised Mississippi River delta wetlands back on a path to sustaining itself naturally, and to ensure that Louisiana's traditional industries are protected. Coastal Louisiana is home to nearly 2 million people. It is the shipping gateway to 20% of the nation's waterborne commerce. It also supports oil and gas infrastructure crucial to producing and distributing energy for the rest of the country. The coast sustains enormously valuable fisheries and the communities that depend on those resources as livelihood. For example, Louisiana historically leads the nation in harvests of shrimp, menhaden, crabs and oysters. Louisiana fishery landings are third in the nation in economic value, and its coastal fisheries landings had a dockside value of $300 million. The value of Louisiana commercial fisheries was $680 million in 1991.

Finally, coastal Louisiana and the Mississippi River delta support rich, diverse communities whose culture, lives and livelihood are inextricably intertwined with the River and its resources. Now is the time to build on the promises made after the storms of 2005 to protect this area by funding this program in an economic recovery bill. Not only will these projects have an immediate and positive impact on employment in the region, but will also improve hurricane protection of our coastal communities and restore this rapidly degrading ecosystem. Programs or projects itemized below have been identified by both the State of Louisiana (FY09 'unmet restoration needs' transmitted to state legislature) and our on-the-ground NGO team as ready to go to construction.

COASTAL LOUISIANA RESTORATION FEDERAL CAPABILITY	FY09	FY10
Beneficial Use of Sediment (WRDA 2007)[10]	$220,000,000	$440,000,000
Storm-Proofing & Elevating Homes	$125,000,000	$125,000,000
Coastal Wetland Planning, Protection, and Restoration Act (Breaux Act)	$60,000,000	$60,000,000
Central Wetlands (Coastal Impact Assistance Program)	$10,000,000	$45,000,000
Mississippi River Reintroduction into Bayou Lafourche (WRDA 2007)[11]	$30,000,000	$100,000,000
Mississippi River Gulf Outlet Closure & Restoration (WRDA 2007)[12]	$50,000,000	$250,000,000
Myrtle Grove Sediment Diversion (WRDA 2007)[13]	$10,000,000	$55,000,000
TOTAL	**$505,000,000**	**$1,075,000,000**

Upper Mississippi River Restoration

Implementation of the Navigation and Ecosystem Sustainability Program (NESP) and Environmental Management Program (EMP). With enactment of the 2007 Water Resources Development Act, Congress created a historic opportunity for the Upper Mississippi River System (UMRS). Congress recognized the importance of this river system by giving the U.S. Army Corps of Engineers a new, dual-purpose authority to integrate management of the river's habitats and navigation system in an unprecedented way. Funding NESP and EMP will provide immediate economic stimulation while improving habitat for this corridor that is so critical to the economy of our nation.

The Navigation and Ecosystem Sustainability Program is a long term plan to balance navigation needs and ecological restoration in the Upper Mississippi River System. It will tackle many of the cumulative environmental impacts incurred from operating the river as a navigation system. The Upper Mississippi River Environmental Management Program (EMP), the primary habitat restoration and monitoring program on the Upper Mississippi, has a goal of restoring more than 97,000 acres of habitat; the Army Corps reports that EMP has restored or created 28,000 acres of habitat.

More than half of the fish and wildlife habitat created by the Mississippi River's backwaters and side channels could be lost by 2035 if the management of the river does not improve. This would lead to a catastrophic collapse of the nation's most productive and diverse inland fishery. Loss of river habitat also

[10] Nearly 100 million cubic yards a year of sediment dredged out of the Mississippi and Atchafalaya Rivers each year to maintain navigation channels could be used to rebuild deteriorating wetlands. This "beneficial use" is critical to restoration. Construction is dependant on the availability of federal funding, dredging needs and schedule, and congressional and local influences.

[11] The engineering and design, including plans and specifications ready to bid for construction, completed for the Bayou Lafourche project. Funds could be used to greatly expedite the project and bring much needed fresh water to the area.

[12] The Corps and State are working jointly to expedite closure and construction began in the fall of 2008. The State will provide the lands, easements, and rights of way and the costs associated with these tasks. Construction of the closure structure is 100% Federal costs. Additional funding would greatly accelerate recovery of the deltaic wetlands east of New Orleans that were catastrophically affected by this disastrous project and are critical to the protection of Orleans and St. Bernard parishes.

[13] This diversion would benefit extensive wetlands in the middle Barataria Basin. The requested funding for FY 09 would accelerate the modeling and design of the diversion structure, thereby moving up its construction by several years.

threatens a $6.6 billion river-recreation industry, which supports 143,000 jobs. (A River That Works and a Working River, The Upper Mississippi River Conservation Committee, January 2000.)

With enactment of the 2007 Water Resources Development Act, Congress authorized $1.72 billion for ecosystem restoration. Now is the time to build on the promise of the new authority for NESP and the existing authority for EMP by funding these programs in the stimulus bill through the Corps' construction general account. Not only will these projects have an immediate and positive impact on employment in the region, but we will realize tangible improvements to the health of our ecosystem. Projects implemented under this program undergo independent analysis and will be monitored to assure that project goals are being met and taxpayer dollars are being used wisely. The NESP was authorized as part of the Water Resources Development Act of 2007 and works in concert with the Upper Mississippi River and Illinois Waterway System. Funding through the stimulus package for the Upper Mississippi will permit the Corps to accelerate existing contracts for ecosystem restoration projects.

UPPER MISSISSIPPI RIVER RESTORATION FED. CAPABILITY		**FY 2009**	**FY 2010**
Navigation and Ecosystem Sustainability Program (WRDA 2007)		$9,450,000	$20,000,000
Ecosystem Restoration			
Ecosystem Habitat Restoration Measures	$800,000		
Pool Drawdowns (2 sites)	$1,400,000		
Side Channel Restoration (2 sites)	$3,500,000		
Wing Dam Alterations (2 sites)	$2,000,000		
Island Shoreline Erosion Protection (3 sites)	$1,000,000		
Island Creation in Pool 18	$750,000		
Upper Mississippi Environmental Management Program (IL, IA, MN, MO, & WI)[14] (WRDA 1986)		$32,500,000	$32,500,000
TOTAL		**$41,950,000**	**$52,500,000**

[14] See attached "Upper Mississippi River Restoration Environmental Management Program (EMP) Phase-Out Plan.