



ENVIRONMENTAL

US ARMY CORPS OF ENGINEERS ★ MISSISSIPPI VALLEY DIVISION ★ BUILDING STRONG®

INTRODUCTION

Environmental sustainability and holistic watershed approaches are integral to the ecosystem restoration mission and overall project and program environmental approach of the U.S. Army Corps of Engineers.

The division manages more than 2,363,000 acres of public lands and waters. It is also responsible for maintenance and protection of more than 3,744 miles of boundary and 9,043 miles of shoreline.

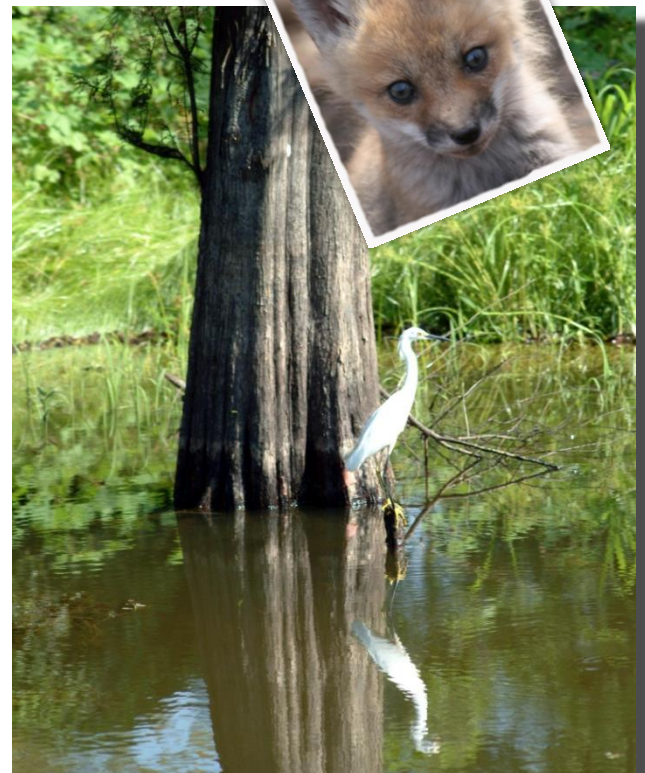
In addition, on the upper Mississippi River system, the division manages more than 193,000 acres of public lands for environmental stewardship and recreation purposes in partnership with the U.S. Fish & Wildlife Service and state natural resource agencies.

In 2012, the Chief of Engineers issued seven reinvigorated Environmental Operating Principles that concisely reaffirm the Corps' proactive commitment to the environment and ensure incorporation of environmental considerations in all design and decision-making efforts.

NATIONAL

National Ecosystem Restoration Planning Center of Expertise: Located in the division, the center focuses on technical evaluations and policy reviews associated with plan formulation during the preparation of decision documents. In addition, the center seeks to strengthen planner core competencies by assisting teams in various aspects of study execution. The center also plays a significant role in certifying models, managing peer reviews, helping to develop policy, contributing to research and development, improving processes and disseminating lessons learned.

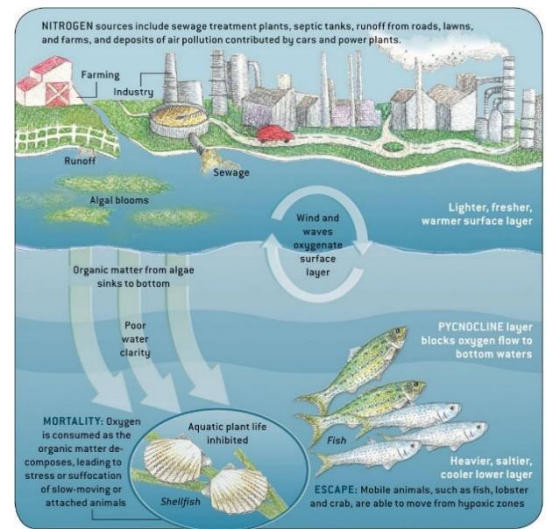
The Mandatory Center of Expertise for Curation and Management of Archaeological Collections: Located in the St. Louis District, the center delivers centralized oversight, administration and policy development for Corps-wide national compliance with archeological collections requirements while supporting a range of allied disciplines. The center maintains the Veterans Curation Program which trains veterans in archaeological collections processing with a focus on transferrable job skills while caring for our national collections.



MISSISSIPPI RIVER WATERSHED

America's Great Watershed Initiative: An effort emphasizing a collaborative approach to sustainable efforts in the Mississippi River watershed. A 2012 meeting in St. Louis, Missouri, brought together more than 170 basin stakeholders, including the Corps. Continued work includes monitoring of river health including aspects of ecological, economic and social importance; as well as outreach and partnering.

Hypoxia Task Force: Led by the U.S. Environmental Protection Agency (EPA), also includes the Corps, other federal agencies, Indian Tribes and Mississippi River drainage basin states. The task force is developing strategies to reduce the frequency, duration and size of a zone of oxygen depletion (hypoxia) in the northern Gulf of Mexico. An issue caused by the overabundance of nutrients in the water that results in a loss of aquatic habitat that displaces, weakens or kills organisms. The Mississippi River/Gulf of Mexico Watershed Nutrient Task Force transmitted a report to Congress in 2017. The report described the progress made through activities directed by the task force and carried out or funded by the EPA and other state and federal partners toward attainment of the goals in the 2008 Action Plan.



Midwest Natural Resources Group: A forum of 14 federal agency regional senior executives established to stimulate collaboration on challenging natural resource issues in the upper Mississippi River drainage basin. In 2016, this group continued efforts to coordinate federal activities concerning actions focused on protecting and increasing the Monarch butterfly populations in the region.



UPPER MISSISSIPPI RIVER

Endangered Mussel Species Conservation: The zebra mussel, a non-native invasive species, currently poses the largest threat to native mussels in the upper Mississippi River. Since 2000, the St. Paul and Rock Island districts have led an interagency effort to re-establish populations of the endangered Higgins eye pearly mussel and the winged mapleleaf mussel in the upper Mississippi River system in areas where zebra mussels will not be a threat.

Upper Mississippi River Restoration Program: An important effort to restore the vitality, health and resilience of the upper Mississippi River's diverse and significant fish and wildlife resources. The program continues to integrate the long term resource monitoring with the habitat rehabilitation and enhancement projects to produce substantial ecological benefits for this nationally significant navigation and ecological resource. The recently completed Habitat Needs Assessment II (2018) documents the current status of the system through critical indicators of ecosystem structure and function that will be used to identify and sequence future habitat restoration efforts. The program has restored more than 106,000 acres of aquatic and floodplain habitat through completion of 56 projects. Additional projects are underway and will result in more than 65,000 acres of restored habitat.



Illinois River Basin Restoration Program: Encompasses the entire Illinois River watershed within the state of Illinois, a nationally significant ecosystem. The effort's purpose was the development of a comprehensive plan (completed in 2007) for the restoration of the Illinois River Basin. It also directs the evaluation and construction of critical restoration projects within the basin; 16 have been identified to date. Three have been constructed and four have completed feasibility and are ready for construction.

Great Lakes and Mississippi River Interbasin Study: The Rock Island and Chicago districts worked with regional stakeholders to identify a plan that would prevent the upstream transfer of aquatic nuisance species from the Mississippi River Basin to the Great Lakes Basin through the Chicago Area Waterway System in the vicinity of the Brandon Road Lock and Dam in Joliet, Illinois. The Chief of Engineers' report for the GLMRIS-Brandon Road study was signed May 2019 recommending the Technology Alternative – Acoustic Fish Deterrent with Electric Barrier, which includes the following measures: nonstructural activities, acoustic fish deterrent, air bubble curtain, engineered channel, electric barrier, flushing lock and boat launches. The Corps is continuing to work with the state of Illinois (the project sponsor) to implement the recommended plan through the Preconstruction, Engineering and Design phase of the project.

LOWER MISSISSIPPI RIVER

Louisiana Coastal Area Study: The \$100 million Louisiana Coastal Area (LCA) Beneficial Use of Dredged Material (BUDMAT) program was authorized by the Water Resources Development Act of 2007. Louisiana is losing coastal wetlands at an alarming rate. Restoring these wetlands is imperative to protecting the state's abundant resources from devastating storms and hurricanes. A very promising option for restoring coastal wetlands and reducing land loss is the beneficial use of dredged material.

The Corps' New Orleans District has the largest annual channel operations and maintenance program in the nation and dredges an average of 64 million cubic yards of material annually during maintenance dredging of navigation channels. The overall LCA BUDMAT program, which aims to restore and create coastal landscape features such as marshes, ridges and islands that provide wildlife and fisheries habitat, reduce the loss of existing coastal landscape features and provide risk reduction to Louisiana's coastal infrastructure. The program has placed 4.1 million cubic yards of dredged material and is currently dredging another 1.6 million cubic yards in 2019, creating nearly 130 acres of marsh and ridge habitat. A current contract is projected to construct another 400 acres of marsh.



Coastal Wetlands Planning Protection and Restoration Act (La.): Since 1990, the purpose of the program is to plan, design, construct, maintain and monitor coastal wetland restoration projects in coastal Louisiana. 90,000+ acres of wetlands are projected to be created, protected and/or restored via the approved 28 Priority Project lists. The program is managed by a task force composed of the state of Louisiana and five federal agencies and is chaired by the New Orleans District commander. In February 2019, four new projects were selected and approved for engineering and design funding. Two existing projects received construction approval and funding. As of May 2019, 222 CWPPRA projects have been approved, 112 have been constructed, 30 are in the engineering and design phase, 15 are under construction, five are support projects and 60 have been inactivated, deauthorized or transferred to another program.



Lower Mississippi River Resource

Assessment: This is a comprehensive watershed assessment to identify information needed for river-related management, natural resource habitat needs and recreation access in a large part of the lower valley. The study area was the Mississippi River from Cairo, Illinois, to the Head of Passes in Louisiana. An information assessment was completed in 2013, recreation assessment in 2014 and habitat assessment in 2015. The comprehensive plan was completed in 2015 and was delivered to Congress in spring 2016. The plan recommends a variety of projects and programs including: a science center and program for the lower river, watershed studies of major tributaries, restoration of eight 30- to 40-mile reaches of the river, 200 small ecosystem restoration projects and a wide variety of projects to enhance recreation; e.g. boat ramps and bicycle trails. The plan identifies a variety of federal, state and local agencies, commercial enterprises and nongovernmental organizations to implement the recommendations. The Nature Conservancy - Great Rivers Partnership was the study sponsor.



Lower Mississippi River Museum and Riverfront Interpretive Center:

Located in downtown Vicksburg, Mississippi, the museum opened to the public in Sept. 2012. It was created to provide an understanding of the risks and benefits for life surrounding the Mississippi River. It showcases the federal government's role in the Mississippi River's past as well as the collaborative efforts from all stakeholders in maintaining a healthy river system. The museum features displays regarding the devastating 1927 flood. Also, the decommissioned Motor Vessel MISSISSIPPI IV is land-docked alongside the museum; it has been restored and is open to the public.



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