Missouri River Recovery Program

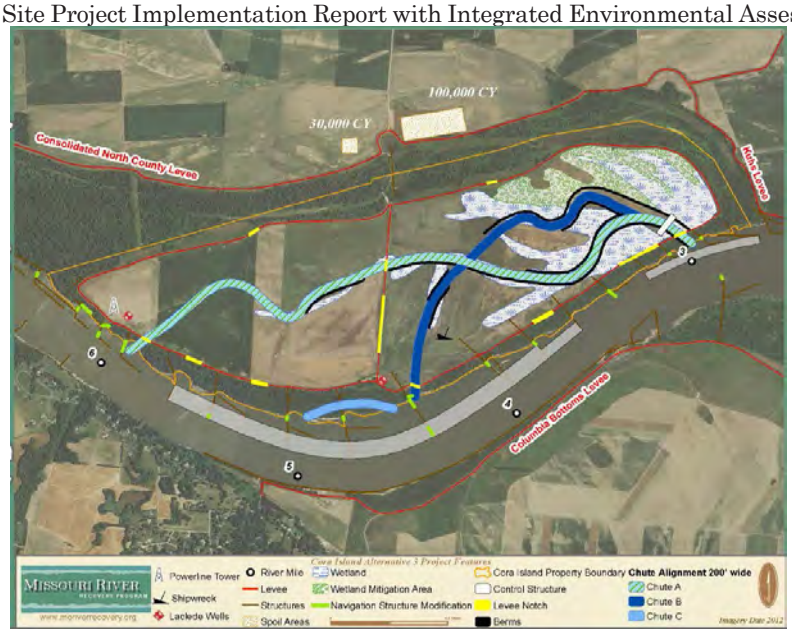
RecoveryChannel

NEWSLETTER OF THE MISSOURI RIVER RECOVERY PROGRAM

DECEMBER 2014

PREPARING TO BREAK GROUND

Detailed engineering and design of the shallow water habitat restoration project has commenced. This follows the completion of the Cora Island Missouri River Recovery Program Site Project Implementation Report with Integrated Environmental Assessment.



During the summer, the Corps hosted a public meeting to review the proposed three side-channel chutes, which would result in approximately 42 acres of shallow water habitat at completion of construction. The chutes will ultimately provide approximately 111 acres of shallow water habitat as they widen through natural processes. Public comments were collected and taken into consideration in the final report. The comments received were reviewed by the Corps and partnering agencies which resulted in a finding of no significant impact (FONSI).

The Cora Island Missouri River Recovery Program Site Project is comprised of 1,238 acres in St. Charles County, Missouri. The primary features of the project will be the construction of a main chute (14,807 feet long by 75 feet wide) and a secondary chute (2,105 feet by 75 feet wide). The project solicitation bid for construction was advertised in August and awarded in September to Phillips Hardy of Columbia, Mo., to complete the construction of this project. Work is anticipated to begin by early December of 2014 and is expected to take approximately 470 days to complete.

This work is to be predominantly constructed by dredge with soil deposition in the Missouri River. Due to an abundance of caution to prevent shoaling in nearby key harbor and lock areas, the soil will be directed into the dike fields versus deposition in the thalweg. In a cooperative effort with the Consolidated North County Levee District, this project will also provide 130,000 cubic yards of soil for use by the levee district to reinforce the L15 levee system. A rock-flow control structure will be constructed at the downstream end of the main chute approximately 1,000 feet from the Missouri River that will limit the end-state design width of the chute to 200 feet.

Using Recovery Program funding, the site is currently managed by the U.S. Fish and Wildlife Service as their eastern most unit of the Big Muddy National Fish and Wildlife Refuge. The area is located on the Missouri River just three miles upstream of the confluence of the Mississippi River. The Cora Island shallow water habitat restoration project to benefit the federally listed endangered pallid sturgeon is anticipated to be completed in 2016.

Like

DID YOU KNOW?

- The MRRP's Habitat Assessment and Monitoring Program is conducting a study which focuses on five reaches of the Missouri River from Kansas City to St. Louis, Mo. to identify and prioritize the types of habitat that best promote use by age-0 sturgeon.
- The Corps currently has over 60,000 acres of the 166,750 acres authorized by the Mitigation Project to offset the 522,000 acres of fish and wildlife habitat lost due to the BSNP. To minimize a long-term financial impact, all efforts are made during the planning process to develop a habitat that is self-sustaining and requires minimal operations and management costs.

Missouri River Recovery Program

FIND US ONLINE!

LIKE US, FOLLOW US & MORE!

www.facebook.com/MoRiverRecovery

www.youtube.com/MoRiverRecovery

www.flickr.com/MoRiverRecovery

www.MoRiverRecovery.org

THE LONG HAUL
Operation and Maintenance of the MRRP

USACE photo by Michael Gossenauer: Kirk Thompson with KDWPT visits a project site

Shallow Water Habitat is a key component in the MRRP strategy to recover the endangered Pallid Sturgeon, so when shallow water habitat site construction is complete, it is important to ensure that it is maintained in a manner that meets habitat requirements they were designed for and not adversely impact other authorized purposes, public infrastructure or adjacent private property. A few examples of other authorized purposes include the navigation channel and flood risk management projects. Within the Corps, the Operations Division is called upon to complete the operation and maintenance (O&M) requirements for these sites. O&M responsibilities on shallow water habitat sites between Sioux City and Rulo, Neb. is completed by the Missouri River Project Office, located just north of Omaha, Neb. For those sites between Rulo and the mouth of the Missouri River, the Missouri River Area Office in Napoleon, Mo. is responsible.

Upon receipt of funding in fiscal year 2014, sites began transferring to Operations with a total of 36 MRRP sites transferred to date. Most constructed shallow water habitat sites have both water (aquatic) and land (terrestrial) features that require O&M by Operations personnel. These offices are already responsible for O&M of approximately 7,500 individual structures that comprise the Missouri River Bank Stabilization and Navigation Project (BSNP).

PARTNERING AGENCIES

Shallow water habitat is constructed on existing public lands, state owned lands or on lands managed by the Corps. A very important aspect of the O&M work at these sites is the role of the Corps' on-site natural resource management partners. Early in the project's history, an Agency Coordination Team was developed to assist the Corps in developing habitat restoration plans for sites and managing fish and wildlife resources. The team is comprised of the U.S. Fish and Wildlife Service, Nebraska Game and Parks Commission, Iowa Department of Natural Resources, Kansas Department of Wildlife, Parks and Tourism and Missouri Department of Conservation. Supporting the efforts of this team are the U.S. Environmental Protection Agency, Natural Resources Conservation Service and Missouri Department of Natural Resources. Therefore the Corps partners with many of these agencies to complete the O&M responsibilities at the completed sites.

USACE photo by Michael Gossenauer: Secretary Robin Jenson, KDWPT (left) discusses a project with Zach White, USACE (right)

MANAGEMENT ACTIVITIES – AQUATIC HABITAT

The Corps routinely monitors the condition of the habitat structures implemented on the river and makes necessary repairs, just as it does with BSNP structures. Most of these structures have been constructed out of rock and are similar to those that make up the BSNP. Maintenance of these structures is a coordinated effort between Operations, River Engineering and the Integrated Science Program. As mentioned previously, shallow water habitat sites must be constructed and maintained in a manner that meets habitat requirements they were designed for and not adversely impact other authorized purposes.

MANAGEMENT ACTIVITIES – LANDS ADJACENT TO RIVER

The Corps' Planning Branch has the lead in developing the habitat restoration plans for the MRRP sites in coordination with Operations Division and Agency Coordination Team members. Once construction of the resulting shallow water habitat is complete, Operations Division assumes the lead role in ensuring that habitat is managed consistent with the site plan. Additionally, Partnering Agencies provide input to the Corps. Each year Operations personnel meet with the on-site managing agency to go over the upcoming year work plan and estimated budget for sites they manage. Many of the items in the work plan are annual routine items and are similar from site to site. These management actions include: enforcement of area regulations; monitoring for encroachments; litter removal; signage; facilities and equipment maintenance; and visitor assistance. Each partnering agency brings a vast amount of long-term institutional knowledge and experience in fish and wildlife management. These agencies establish and manage native and invasive vegetation to benefit native wildlife through plantings, mowing, controlled burns, discing, spraying, food plots and several timber management techniques. Depending on the site, Operations personnel and/or the on-site managing agency personnel operate and maintain the water features (many have channels for the Pallid Sturgeon) or wetland resources (to benefit shorebirds and migratory waterfowl). The Corps currently has over 60,000 acres of the 166,750 acres that were authorized for purchase through WRDA 1986 and 1999 as mitigation for the BSNP. As additional lands are acquired and habitats are restored, the amount of funding needed to operate and maintain the project increases. In order to minimize a long-term financial impact, all efforts are made during the planning process to minimize future O&M costs by developing a habitat that is self-sustaining and requires minimal management effort.

USACE photo by Trisha Dorsey: Dalbey Bottoms Project

BENEFITS

Habitats restored by the MRRP benefit several native species including the endangered pallid sturgeon, Indiana bat and the threatened decurrent false aster. The bald eagle, once listed as endangered, is now commonly seen using the restored habitat on these sites for nesting, roosting and foraging. O&M activities at MRRP sites not only benefit fish and wildlife resources but provide a quality area for the public to enjoy hunting, fishing, trapping, hiking, mushroom hunting, wildlife viewing/study on the restored habitat along the Missouri River.

USACE photo provided: Public Scoping Meeting for MRRP Project

The Corps' Operations Division, its personnel and partnering agencies are committed to maintaining this habitat so that it provides the designed benefits to the native fish and wildlife of the Missouri River as well as the general public.

SHALLOW WATER HABITAT
Study Focusing on River Reaches

MRRP Interns Justin Bounds (left) and Anthony Civiello (right) sample the river for sturgeon

Crews from the U.S. Army Corps of Engineers (Corps) and the U.S. Fish and Wildlife Service (USFWS) were busy this past summer collecting young-of-year (YOY) sturgeon in support of the Missouri River Recovery Program's Habitat Assessment and Monitoring Program (HAMP). The goal of HAMP is to assess the physical and biological responses to habitat creation actions that are expected to benefit pallid sturgeon. Initial HAMP efforts evaluated the response of the fish community to habitat modifications at multiple river bends; however, a review of HAMP data in 2010 suggested perhaps a larger spatial scale may be appropriate. Subsequent work by the USFWS suggested 15-20 miles may be a more appropriate spatial scope to evaluate potential changes in fish abundance. Therefore, a new study consistent with a recommendation from the Corps' commissioned Independent Science Advisory Panel and the draft Adaptive Management Strategy for Creation of Shallow Water Habitat, was undertaken to provide additional information that will help guide future habitat restoration activities on the lower Missouri River.

This study focuses on five reaches of the Missouri River from Kansas City to St. Louis, Mo. Three of the reaches are at or near the USFWS Biological Opinion target of 20-30 acres per mile of shallow water habitat (shallow water habitat is defined as water less than 5 feet) while the other two reaches have less than 10 acres per mile of shallow water habitat. The purpose of the study is to evaluate the efficacy of existing shallow water habitat to support early life stages of sturgeon by comparing density of YOY sturgeon among reaches and identifying and prioritizing the types of habitat that best promote use by YOY sturgeon. The Oklahoma Cooperative Fish and Wildlife Research Unit at Oklahoma State University is providing additional assistance by examining the stomach contents, level of fullness and body condition (lipid concentration) of YOY sturgeon collected in the study reaches. A primary hypothesized benefit of shallow water habitat is that increased food is present resulting in improved condition of YOY sturgeon; however this hypothesis has never been tested so the information learned from this study will help answer this critical assumption. This study is anticipated to be complete in 2016.

USACE Photos by Trisha Dorsey

Meet Me At The Confluence

The Missouri River flows 2,341 miles from its headwaters in Montana south and east before joining the Mississippi River just 8 miles north of St. Louis, Mo. Once this system is combined at the confluence, it flows into the Gulf of Mexico making the Missouri River water flow over 3,700 miles in total.

USACE Photo of the Confluence provided by the St. Louis District

The confluence of the Missouri and Mississippi Rivers is where two of the nation's largest rivers join, and where Lewis and Clark set off on their epic journey up the Missouri. The historic confluence can be viewed from multiple tracts of land, including three Missouri River Recovery Program sites within the immediate area. The Corps actively partners with Missouri Department of Natural Resources, Missouri Department of Conservation and U.S. Fish and Wildlife Service in maintaining these unique outdoor areas that exist on the doorstep of a large metropolitan area. The confluence offers a rare chance for urban residents to quickly get to a natural area and enjoy the outdoors, a bit of history and experience great fisheries and wildlife habitat.

Confluence Point State Park

Consisting of 976 acres between river miles 0 and 2 in St. Charles County, Mo., the area is part-owned by the Corps of Engineers and part-owned by the Missouri Department of Natural Resources. The Corps provides MDNR with funds for environmental restoration and related operation and maintenance activities including riparian forests, enhanced wetlands and deciduous forests. Within Confluence Point, opportunity exists to take a foot trail to the point where the two rivers meet. It offers a unique experience where a visitor can set foot in both the Mississippi and the Missouri River at the same time and view where the two large systems meet.

Columbia Bottom Conservation Area

Columbia Bottom is a large and diverse natural area that is very close to the St. Louis metro area. It offers a wide range of fishing, hunting, trails, nature-viewing, and outdoor education programs. Columbia Bottom was one of the first sites enrolled within the MRRP. Consisting of 4,600 acres between river miles 0 and 4.9 in St. Louis County, Mo., the area is owned and managed by the Missouri Department of Conservation. Through a cooperative agreement, the Corps provides MDC with funding for environmental restoration and related operation and maintenance activities on the site. MRRP efforts included a levee setback, reconnection of a large river floodplain area and 800 acres of wetland development.

Cora Island

Cora Island is the newest addition of MRRP sites within the confluence area. Purchased by the Corps in 2006, Cora Island consists of 1,238 acres between river miles 3 and 6 in St. Charles County, Mo. The area is owned by the Corps of Engineers and managed by the U.S. Fish and Wildlife Service as part of their Big Muddy National Fish and Wildlife Refuge. The Corps provides the USFWS with funds for environmental restoration and related operation and maintenance activities including emergency wetlands, crop fields, riparian forests and implementing an environmental restoration plan. In the fall of 2014, the Corps began construction for three side-channel chutes on the project site for shallow water habitat.

HELP WANTED!!

Spend summer on the river!

Spend the summer on the Missouri River monitoring Threatened and Endangered species through an internship or seasonal position with the U.S. Army Corps of Engineers, Omaha District. The Tern and Plover Monitoring Program tracks least tern and piping plover productivity on the Missouri River in North Dakota and South Dakota from May to August. Up to 35 seasonal positions with seven monitoring crews will be filled at various levels in 2015.

North Dakota

*Williston
*Riverdale
*Bismarck

Summer positions will be located:

South Dakota

*Yankton
*Pickstown
*Pierre
*Mobridge

The internship and seasonal positions will be advertised through USAJOBS, www.usajobs.gov, in mid-January.

USAJOBS "WORKING FOR AMERICA" Search Jobs

For more information, contact Chantel Cook, Tern and Plover Monitoring Coordinator by phone, 402-667-2581 or by email, Chantel.M.Cook@usace.army.mil.

GET INVOLVED!

- You can receive program updates by following the Missouri River Recovery Program on Facebook; www.Facebook.com/MoRiverRecovery
- You can request a presentation from a MRRP representative online
- Email questions directly to us; MRRP@usace.army.mil
- Send us suggestions for upcoming Recovery Channel issues or Facebook posts
- Explore the river through our interactive online tool, the Missouri River Basin Explorer; www.MoRiverRecovery.org
- Sign up for our emailing list online or send us a message with your request

www.MoRiverRecovery.org

MISSOURI RIVER RECOVERY PROGRAM

FACES OF MRRP

Daniel Pridal (pictured), chief of Omaha District's River and Reservoir Engineering Section, manages many engineering aspects of the Missouri River Recovery Program. Pridal oversees a team of lead design engineers who work with continually evolving MRRP projects to create unique habitats like Deer Island and Lower Decatur, a couple of top-width-widening projects that have excited biologists within the Corps and state agencies because of their innovative approach to shallow water habitat creation. Pridal also supervises a field survey crew who monitors conditions within constructed shallow water habitat projects, checking parameters such as flow depth, velocity and percentage of main channel flow. Engineers in the River and Reservoir Engineering Section are working through the intricacies of designing a successful pallid sturgeon bypass at Intake on the Yellowstone River while still maintaining irrigation diversion.

Pridal joined the Omaha District in the 1990's. He holds a Master of Science in civil engineering, water resources from Texas A&M.