

Upper Mississippi River System Environmental Management Program Fact Sheet

Red's Landing Habitat Rehabilitation and Enhancement Project **Pool 25, Mississippi River, Illinois** **USACE, St. Louis District**

Location

The proposed project includes Red's Landing and the Gilead Slough. The project area is located along the east bank of the Mississippi River Pool 25 between river miles 252 – 255.5 in Calhoun County, Illinois. This property is General Plan (GP) Lands owned by the US Army Corps of Engineers and is managed by the Illinois Department of Natural Resources (IDNR) through a cooperative agreement with the US Fish and Wildlife Services. The IDNR owns approximately 15 acres north of the entrance road, 3 acres east of the levee and 12 acres west of the levee bordering the parking lot for the lake ramp. The IDNR currently manages this site as a State Fish and Waterfowl Management Area.

Existing Resources

The area consists of a patchwork of habitat types including sloughs, backwater lakes, bottomland forest, and agricultural fields. The Corps purchased this area for the Upper Mississippi River navigation system, and portions were leased back to the private sector. One such area was Gilead Slough, which was subsequently managed primarily as a hunting and fishing club, known as the Gilead Club. During operation, club members constructed dikes and installed water control structures in order to manipulate water levels for moist soil management and waterfowl production during the hunting season.

The flood of 1993 destroyed most of the infrastructure used by the Gilead Club and led to the Club terminating its long standing lease with the Corps. Due to this area adjoining Red's Landing on the south, Gilead Slough was offered by the Corps to IDNR for management. Today, the old Gilead Club levees and infrastructure provide the water level control for the adjacent Red's Landing. However, the degraded condition of these systems prevents proper water level management for ideal fish and waterfowl habitat.

Problem Identification

Due to the degraded condition of the existing water control infrastructure, water levels become lower than ideal for adequate fish and waterfowl habitat. Each year costly repairs to the infrastructure are made by IDNR in order to retain adequate water levels for moist soil management and waterfowl production. In addition, on the northern end of the site, siltation is filling in many of the old sloughs and backwaters leading to the loss of wetland acres that were once suitable fish and waterfowl habitat.

Project Goals

Replace Gilead Slough Area water control infrastructure

- Improve water level management to provide fish and waterfowl habitat
- Enhance connectivity allowing fish access to the river during low water

Provide water level management to the 180 acre agricultural field between the green tree area and the river bank

- Improve moist soil vegetation to benefit wildlife

Enhance floodplain forest and wetland communities.

- Enhance floodplain forest diversity

Enhance wetland habitat to benefit fisheries, shore birds and migratory waterfowl.

- Provide fisheries and wildlife habitat

Proposed Project

The following are the measures that make up one implementable alternative that is in the Federal interest, addresses the area's problems, and achieves projects goals. If approved, a feasibility study resulting in a definite project report would be prepared. As part of this study, a full range of measures and alternatives would be developed and analyzed. To determine these, the project delivery team would utilize existing literature, historic information, area studies, partner input, and best scientific judgment.

Gilead Slough

On the old Gilead lease property, the project would raise the east end berm 3-feet for a distance of 3,000 feet. The old water control structure would be replaced with a 10-foot wide stop-log structure capable of providing fish and boat passage. The remaining portion of the berm would be raised one foot (450 cy) and covered with rip rap (750 cy) to serve as an overflow spillway (located near duck blind 184) during flood events since this area is already prone to overtopping and cutting. Approximately 37 acres will be planted with containerized trees, focusing on increased forest diversity and improved wildlife habitat. The trees will be planted on high elevation areas while areas of lower elevation will be used to produce moist soil vegetation.

Red's Landing

On the north end of the old agricultural field located at Red's Landing, a berm 8,000 feet long (21,300 cy) would be constructed along the timbers edge with 4-36" CMPs with stop-log risers placed in the low areas. The river's natural ridge would provide for much of the fields riverside berm. Low areas along the natural ridge would be filled (890 cy) to bring the riverside berm to a uniform average elevation of 3 feet. The riverside berm would be equipped with an overflow section (750 cy rock) towards the downstream end which would allow for over-topping during flood events. The levee encircling the pump discharge channel would be raised to create a stilling basin (1,789 cy earth) with 1-36" and 1-42" gated CMP structures between the basin and the new terrace. The new compartment would be flooded with the pump system that is presently in place. Portions of the old agricultural field have recently been invaded by soft mast trees (cottonwoods and silver maples). These trees will not be removed. Most likely these trees will not survive due to the flooding but once they die, they will provide coarse woody structure for fish habitat. Approximately 20 acres of non-flooded, higher elevation areas will be planted with hardmast containerized trees, focusing on increased forest diversity and wildlife habitat.

Implementation Considerations

Pre-project topographic and forest surveys will be needed to identify the likely location and extent of new berms. The survey will also identify areas that require drainage structures to ensure water will not be trapped on the upstream side of the berms. Soil texture analysis and site topographic surveys will identify any restraints in species composition of the tree plantings. Red's Landing has a large Heron rookery, which has benefited from the managed water levels; therefore pre-project surveys will need to be completed to determine whether the proposed structures will impact this rookery or other existing species of interest (e.g., mussel beds, eagle nests).

Financial Data

The total estimated base year cost for this project is \$1,475,752. All of the project features are on General Plan Lands owned by the US Army Corps of Engineers and managed by the Illinois Department of Natural Resources. Accordingly under the provisions of Section 906(e) or WRDA 1986, as amended, the project's first (initial) costs are 100% Federal. Operation, Maintenance, Repair, and Rehabilitation costs are the responsibility of the project sponsor, IDNR. The estimated annual operational and maintenance cost is \$6,000.

Status Of Project

This project has been endorsed by the River Resource Action Team. A transition plan has been developed for EMP and the Navigation and Ecosystem Sustainability Program (NESP). Ecosystem Restoration projects are being formulated for compatibility between the two programs. It is anticipated that this project could easily transition between the two programs if directed by Congress to do so.

Points Of Contact

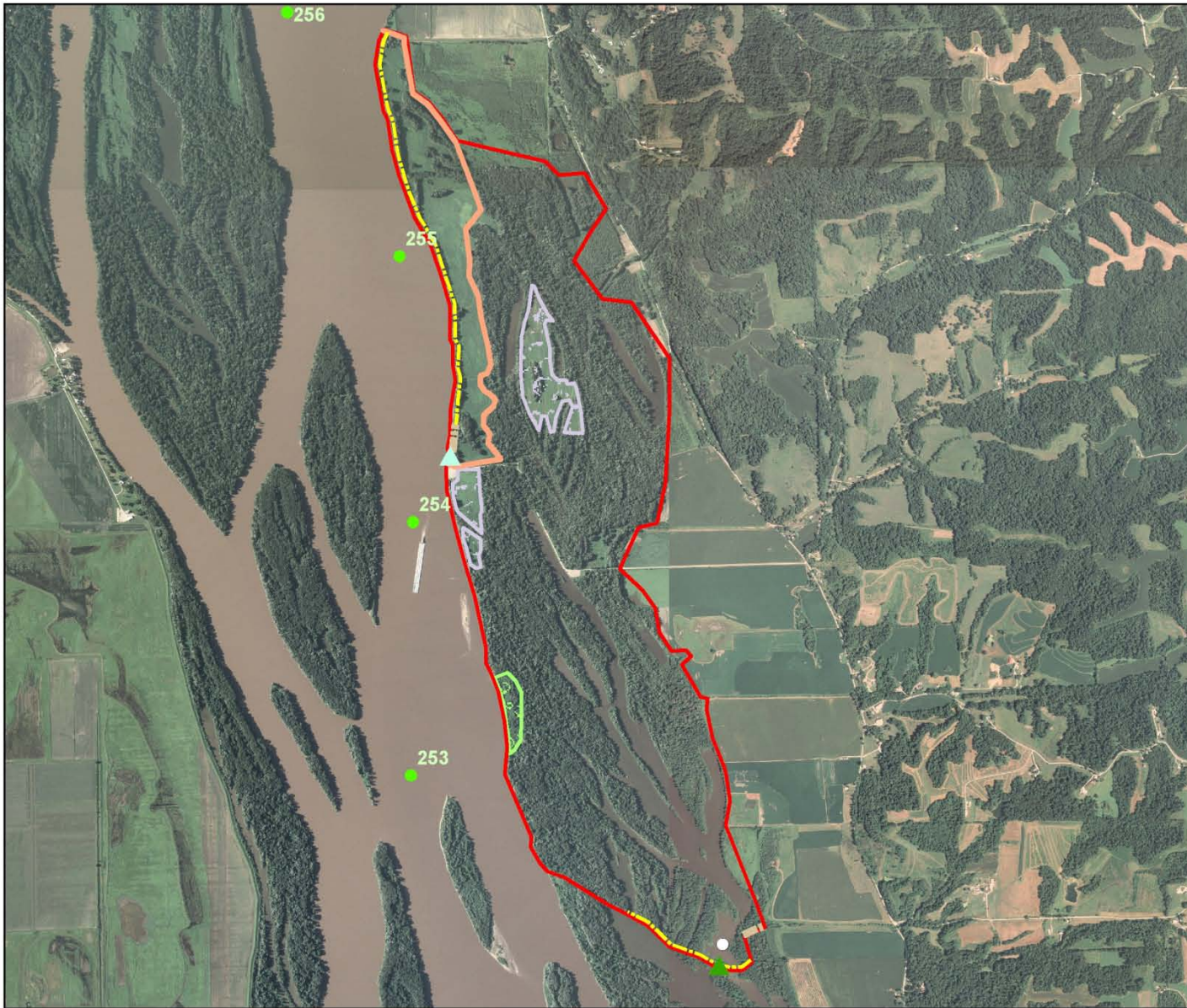
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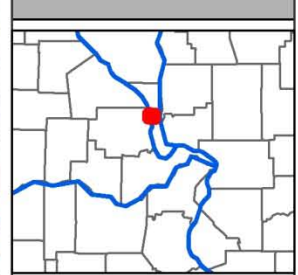
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Location Map



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- Duck Blind 184
- Existing Water Control Structure
- Replacement Water Control Structure
- Levee Upgrade
- New Berm
- Spillway
- River Miles
- Project Boundary
- Completed Planting
- Reforestation