



US Army Corps
of Engineers
St. Louis District

INFORMATION PAPER

Meramec Low Water Crossing Mitigation Plan, MO

Section 206 of the Flood Control Act of 1960, as amended (33 U.S. Code § 709a)

Investigations (FRM)

Location: The project area is in the Meramec watershed, Missouri.

Description: This interagency non-structural project will identify low water crossings that pose high risk to life, prioritize crossings for mitigation, recommend actions to reduce risk and build resilience, pair projects with mitigation funding sources to address a major public safety issue. This partnership composed of Federal, State and local agencies will seek to address high risk low water crossings in the Meramec watershed. From 2015 through 2019, 40 of Missouri's 50 flooding deaths (80 percent) occurred when vehicles were swept off low-water crossings. The team will identify low water crossings that pose high risk to life based on traffic and/or population served (structures served), its vulnerability to damage, length of time the crossing is unpassable, and available detours. The team will prioritize crossings for physical or non-physical mitigations, recommend actions to reduce risk and build resilience by recommending design and construction standards for specific crossing that will enable them to withstand flash floods and reopen more quickly after a flooding event, provide preliminary engineering, cost estimate, and benefit-cost analysis for highest risk crossings, leverage resources from those agencies where crossing improvements have multiple benefits such as reduced risk to life, reduced repetitive damage to infrastructure as well as improved hydraulic and geomorphic response including aquatic organism passage. The team will also pair projects with the proper funding source for mitigation. This project will create a low water crossing mitigation plan that will improve public safety by building resiliency and improving stream form and function helping to achieve Missouri Recovery Support Strategy and Clean Water Act goals.

Status: This project was competitively selected and funded in FY22. Work initiated in December 2021 and is in the early stages of data collection and analysis.

Importance: The Missouri Recovery Support Strategy dated February 2020 identifies that unmitigated infrastructure impacts to low water crossings present major public safety issues. Most crossings are found in rural areas, however, these structures account for 80 percent of Missouri's flood related fatalities. In addition, damages are common further compromising safe access. Expensive road/bridge designs can be cost prohibitive for local governments to undertake on their own, therefore, hardening the crossings are common practice which neither meets regulatory standards nor improves public safety.

With interagency technical assistance, these crossings can be designed and mitigated to decrease the number of flooding deaths, reduce the number of swift water rescues, withstand flash floods and enable reopening more quickly after a flooding event.

Risk: Progress is being made in working toward a solution to the Meramec low water crossing problem.

Consequence: The project will address a priority in the Missouri State Hazard Mitigation Plan dated 2018 specifically under Mitigation Category F-17 (A) Elevating roads and bridges above the base flood elevation. Identified and prioritized projects to address these low water crossing dangers entail replacing the crossings with low span bridges or culverts designed to pass flood flows.



Activities for FY22: Initiate the project, collect data from partners (i.e., HEC-RAS models and GIS data), develop priority ranking metrics and develop conceptual low water crossing designs. Interagency partner meetings will be held throughout the life of the project.

Acquisition Strategy: No contracts are scheduled for award with this project.

Activities after FY22: Draft report, conduct quality reviews (USACE and partner reviews) and gain report approval at the District level

Project Partners: State Emergency Management Agency, Missouri DOT, US Fish and Wildlife Service, The Nature Conservancy, FEMA, Meramec Regional Planning Commission and East/West Gateway Councils of Government

Congressional Interest: Senate: Blunt (MO), Hawley (MO) House: Smith (MO-8), Leutkemeyer (MO-3)

Phase	FY 22 Allocation
Investigations	\$25,000