

LOWER MERAMEC MULTI-JURISDICTIONAL

FLOODPLAIN MANAGEMENT PLAN



SUMMARY:

The purpose of developing the Floodplain Management Plan (FMP) is to enhance the community’s flood resilience. An effective FMP offers options to lessen the impacts of flooding to the community’s economy and the lives of those living near the many waterways. Once adopted, the FMP, maintained as a living document, is continually updated as new information arises, or as additional goals and strategies are developed. The goals of an FMP include:

- Reducing loss of life, injury, and hardship due to floods;
- Reducing flood-related damages;
- Reducing public expenditures for construction of additional flood damage reduction measures, emergency response actions, and post-disaster assistance; and,
- Preserving and enhancing natural floodplain functions for fish and wildlife habitat along with their attendant benefits of groundwater recharge, moderation of floods, water quality improvement, and reduced erosion and sedimentation.

The FMP focused on the 1-percent Annual Exceedance Probability (AEP), which refers to flood events that have a one percent probability of occurring in any given year, using existing Flood Insurance Rate Maps (FIRMS), where available. The hydraulic model used FIRMS throughout the study is the same model used for the Federal Emergency Management Agency’s (FEMA) Flood Insurance Study.

POTENTIAL MEASURES STUDIED:

Nonstructural measures	Nonstructural and Nonphysical Measures
Elevation	Flood Warning Systems
Relocation	Flood Insurance
Buyout/Acquisition	Floodplain Mapping (FIRM)
Dry Floodproofing	Flood Emergency Preparedness Plans
Wet Floodproofing	Land Use Regulations
	Evacuation Plans
	Risk Communication

SILVER JACKETS PROGRAM

Silver Jackets teams across the United States bring together multiple state, federal, and local agencies, as well as non-governmental agencies, to leverage resources and learn from one another.

By applying their shared knowledge, the teams enhance response and recovery efforts when such events do occur.

The Lower Meramec Multi-Jurisdictional Floodplain Management Plan (FMP) was developed as an interagency Flood Risk Management (FRM) study via the Silver Jackets team funded under the Flood Plain Management Services (FPMS) program.



LOWER MERAMEC MULTI-JURISDICTIONAL

FLOODPLAIN MANAGEMENT PLAN

TOOLS	EVALUATION	
Land Use Policies and Regulations	EFFECTIVE	RECOMMENDED
Public Alert Flood Warning System	EFFECTIVE	RECOMMENDED
Warning Dissemination, Multi-Media	EFFECTIVE	RECOMMENDED
Flood Emergency Preparedness Plans (or EAP)	EFFECTIVE	RECOMMENDED
Development Policies – Moratorium	EFFECTIVE	NOT RECOMMENDED
Structure Elevations	EFFECTIVE	RECOMMENDED
Buyouts (Structure and Land Acquisition)	EFFECTIVE	RECOMMENDED
Flood proofing (Wet & Dry)	EFFECTIVE	RECOMMENDED
Community Education and Advocacy	EFFECTIVE	RECOMMENDED
Temporary Flood Risk Adaptive Measures	EFFECTIVE	RECOMMENDED
Information and Education	EFFECTIVE	RECOMMENDED
Flood Insurance	EFFECTIVE	RECOMMENDED
Community Rating System (CRS)	EFFECTIVE	RECOMMENDED
Local Drainage and Utility Protection	EFFECTIVE	FURTHER EVALUATION NEEDED
Tax Adjustments	EFFECTIVE	FURTHER EVALUATION NEEDED
Post-Flood Recovery Processes	EFFECTIVE	RECOMMENDED
Wetlands, Stream, and Riparian Protection and Restoration	EFFECTIVE	RECOMMENDED
Enhancement of Recreation and Education Opportunities	EFFECTIVE	RECOMMENDED
Detention/Retention Basins	EFFECTIVE	FURTHER EVALUATION NEEDED
Levees and Floodwalls	EFFECTIVE	FURTHER EVALUATION NEEDED

LOWER MERAMEC MULTI-JURISDICTIONAL FLOODPLAIN MANAGEMENT PLAN ACTION PLAN:

- 1) Adopt the Lower Meramec Multi-Jurisdictional FMP
- 2) Implement nonstructural recommendations in Appendix E
- 3) Develop a comprehensive public outreach plan
- 4) Develop a flood emergency preparedness/evacuation plan
- 5) Adopt higher regulatory floodplain management standards
- 6) Maintain and expand the existing flood warning systems
- 7) Join the Community Rating System (CRS)

IMPLEMENT NONSTRUCTURAL RECOMMENDATIONS:

After the USACE’s National Nonstructural Committee visited the Lower Meramec communities and performed visual assessments of the properties and structures, the Committee identified potential mitigation measures to reduce flood risk, decrease flood damages, and to potentially eliminate life-loss. These findings were then further analyzed to include regulatory and economic criteria, which resulted in final recommendations, which is described below.

Of the structures located within the 1% AEP floodplain in the Lower Meramec Basin, 17% (161) are recommended to be elevated, 13% (120) to be acquired, 27% (254) to be relocated, 38% (360) to be floodproofed, and the rest (5% or 47 structures) had inundation below the first floor, and therefore only required either a sewer check valve or relocation of utilities.

LOWER MERAMEC MULTI-JURISDICTIONAL FMP PARTNERS:

U.S. Army Corps of Engineers, U.S. Geological Survey, Federal Emergency Management Agency—Region VII, Missouri State Emergency Management Agency, Missouri Department of Transportation, Missouri Department of Natural Resources, City of Arnold, City of Eureka, City of Fenton, City of Pacific, City of Sunset Hills, City of Union, City of Valley Park, City of Wildwood, Franklin County, Jefferson County, St. Louis County, The Nature Conservancy, East-West Gateway Council of Governments, and Wichita State University Environmental Finance Center