# WATERSHED MONITORING, MAPPING AND MODELING PROGRAM



This program addresses the need for enhanced data and watershed modeling to support objective, science-based decisions regarding rainfall, river levels and flood mitigation throughout the state. Robust data collection and modeling will help decision-makers select evidence-based flood risk reduction projects and encourage regional collaboration in pursuing long-term resilience.

# \$145 million to support statewide effort



# Modeling Key Points

## MAJOR STATEWIDE EFFORT TO DEVELOP WATERSHED MODELS

The state is working with engineering experts to develop hydrologic and hydraulic models of major watersheds throughout Louisiana, in consultation with local and regional stakeholders. Once complete, the hydrologic and hydraulic models will support greater regional collaboration around shared water management challenges and build an objective, science-based understanding of how projects, policies and other measures will reduce flood risk.

# **PRIMARY OBJECTIVES**

- Generate and use the best available science and objective data to inform decisions
- Assess flood risks, including adverse impacts and consequences
  Guide decisions involving future of mitigation efforts
  Guide decisions involving future
- Evaluate proposed projects, watershed management strategies and policies
- Enable decision-makers to study the feasibility and impact of flood mitigation measures using shared hydrologic data
- Guide decisions involving future developments, sustainable community growth and projected costs

## TIMELINE

All models are anticipated to be complete by 2023.

### STRONG COLLABORATION WITH FEDERAL PARTNERS

- Federal Emergency Management Agency
- U.S. Army Corps of Engineers
- U.S. Geological Survey
- National Oceanic and Atmospheric Administration
- Natural Resources Conservation Service
- U.S. Environmental Protection Agency

watershed.la.gov 🕅 watershed@la.gov



H&H models use software to simulate the flow of rainfall runoff and predict the rise of water levels and flooding. The models can also evaluate flood mitigation plans, policies and projects.

# Monitoring Key Points

### **ENHANCING THE RIVER & RAIN GAUGE NETWORK**

Based on input from local and regional stakeholders, LWI designed an enhanced gauge network in areas where additional gauges are needed. This effort was accomplished in collaboration with researchers from UL Lafayette and Tulane University; technical experts from USGS and NOAA; and the Louisiana Department of Environmental Quality.

# \$15 million

for river and rain gauge network improvements

# Up to 100 new gauges

louisiana-watershed-initiative

to be installed over six years

# Mapping Key Points

The data collected from the watershed monitoring and modeling activities can be used to create updated flood risk maps to enhance regional and community hazard mitigation planning efforts.

This program is part of the state's Action Plan to spend \$1.2 billion in federal Community Development Block Grant Mitigation funds. For more information, visit the modeling webpage at <u>watershed.la.gov</u> or email <u>watershed@la.gov</u>.

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