



Missouri

Little Blue-Flood Forecast Inundation Maps & FP Mgmt Plan



Project Description

- Create two Flood Forecast Inundation Maps (FFIMs) in Independence, MO to begin active risk communication with the public, especially for the high risk development at BFE edge
- Use the National Weather Service (NWS) Advanced Hydrologic Prediction Service (AHPS) website for the Little Blue River
- Communicate nonbreach inundation for USACE's upstream dams at Blue Springs Lake and Longview Lake
- Develop a draft Floodplain Management Plan (FMP) that describes flood hazards, documents decisions made on flood risks, and formalizes an action plan especially in reviewing nonstructural measures with public involvement

Flood Risk Reduction Outcomes (on going)

- Enables risk informed decision making for potential property owners prior to flood events
- Enables actionable risk reduction, including evacuation, for those willing to take steps when flooding is imminent
- Allows emergency responders to see flooded routes in advance
- Presents visual of flooding with all-the-time easy access on web
- Extends risk information beyond the base flood or 1%-AEP
- Establishes future action plan with who does what and when
- Organizes the next step in pursuing action items towards comprehensive flood hazard mitigation work
- Engages the public in decision process

Challenges Overcome / Continuing Challenges

- Coping with public interest on FEMA mapping and NFIP reform
- Addressing public misconceptions of risk level managed below a dam
- Gaining public understanding of actions that would be most cost effective, as a thorough review of all possible structural and nonstructural measures

Partners and Project Cost

Agency	Investment
USACE	\$75k
City planning	\$28k In-kind
City AHPS fee	\$8k In-kind
NOAA NWS new FFIMs	\$48k In-kind
NOAA NWS AHPS	\$100k In-kind
FEMA Risk MAP, CERC	Unknown in-kind
USGS gage cost	~\$28k
USGS O&M	~\$1.5M
TOTAL	\$1.8 M

Successes/Best Practices

- Harness the window of opportunity during FEMA Risk MAP work
- Coordinate with FEMA Community Engagement and Risk Communication (CERC)
- Evaluate full menu of measures (structural and nonstructural) and narrowing to the right tools
- Capture a decision history for managing floods
- Gives FEMA Community Rating System credit

USACE Project Point of Contact

Brian Rast
Kansas City District

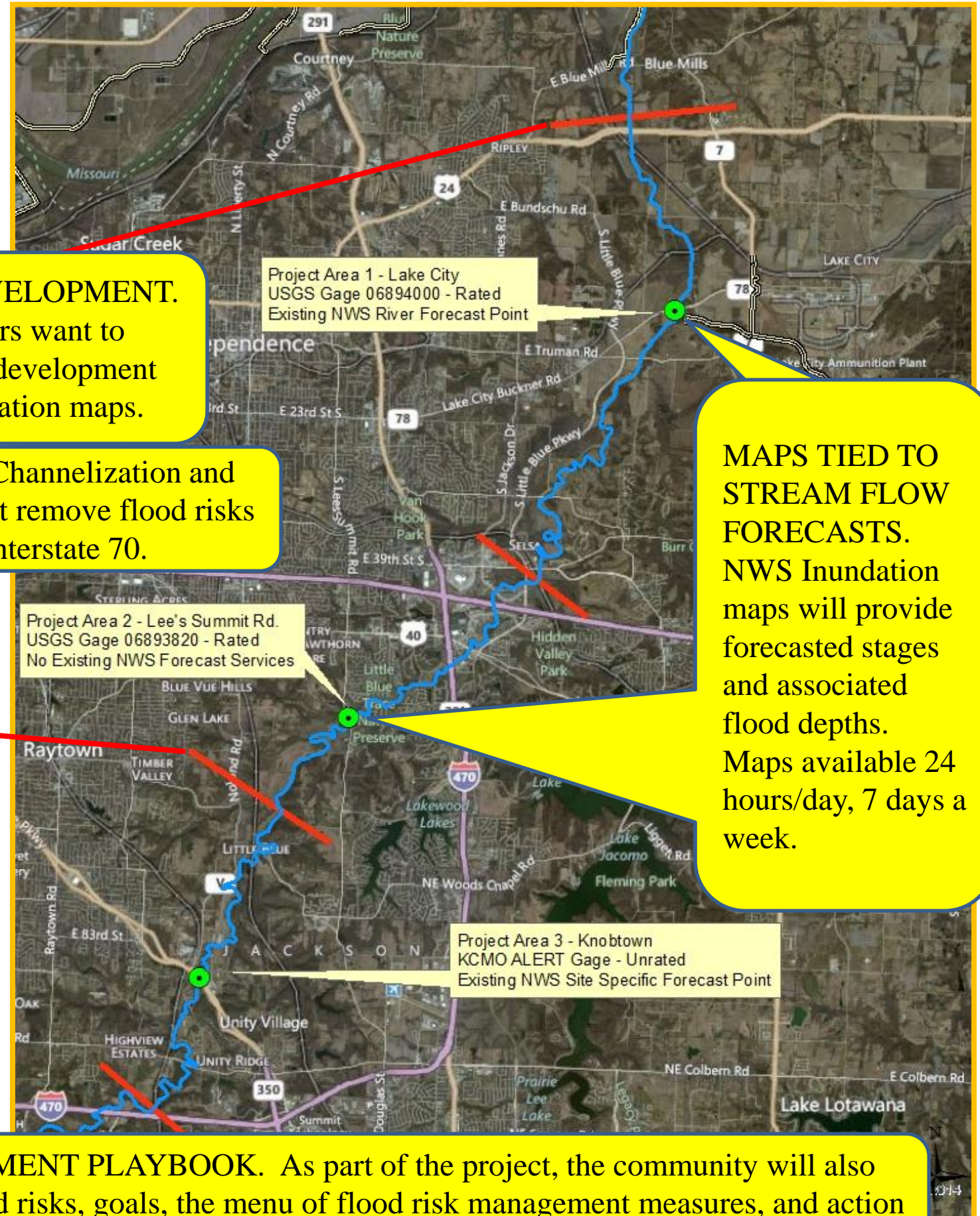
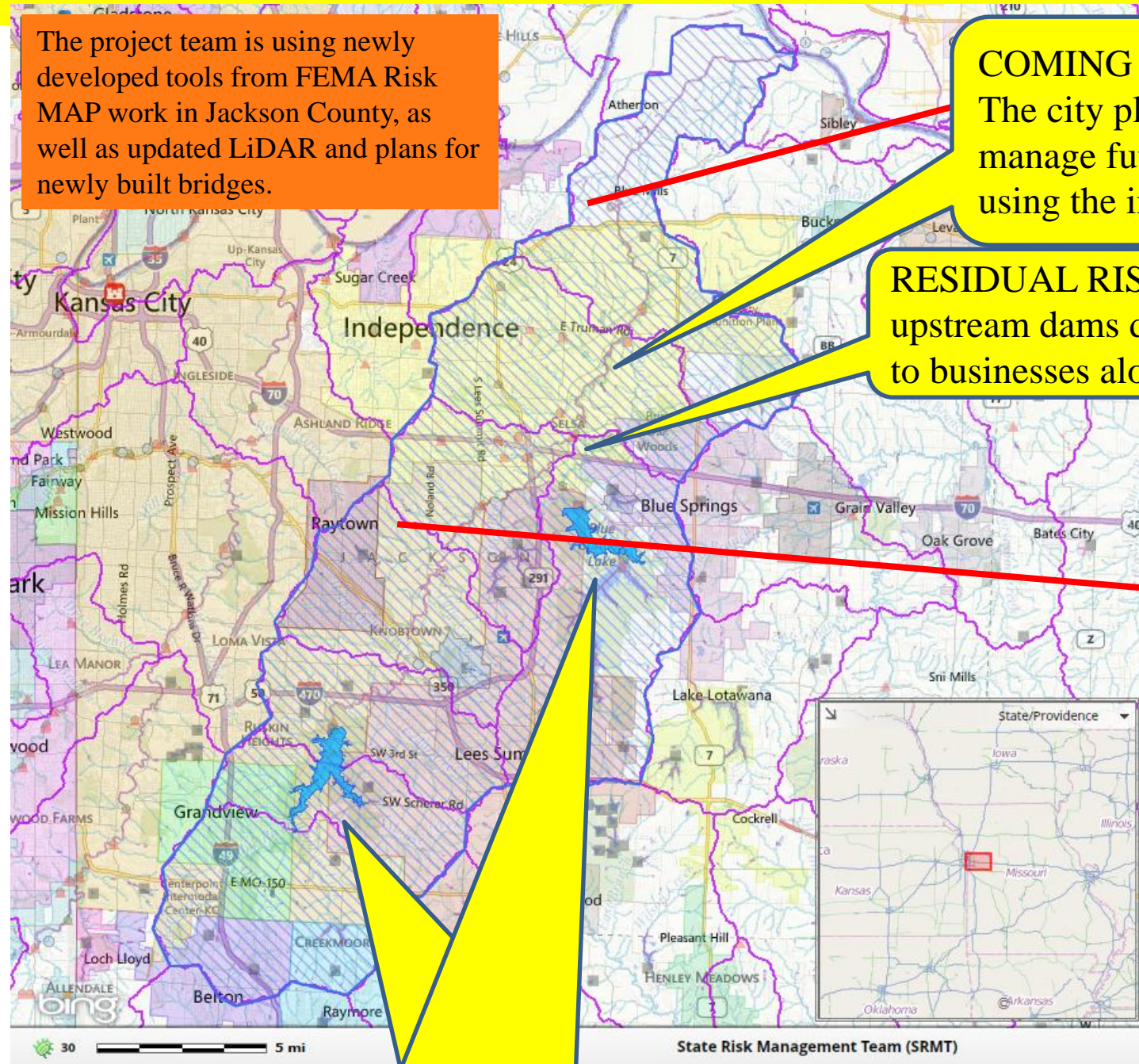
Floodplain Management Plans and Two Flood Forecast Inundation Maps

The project team is using newly developed tools from FEMA Risk MAP work in Jackson County, as well as updated LiDAR and plans for newly built bridges.

COMING DEVELOPMENT. The city planners want to manage future development using the inundation maps.

RESIDUAL RISK. Channelization and upstream dams do not remove flood risks to businesses along Interstate 70.

MAPS TIED TO STREAM FLOW FORECASTS. NWS Inundation maps will provide forecasted stages and associated flood depths. Maps available 24 hours/day, 7 days a week.



CORPS LAKES. Communicating the nonbreach inundation of the two USACE lakes is considered part of this project.

FLOODPLAIN MANAGEMENT PLAYBOOK. As part of the project, the community will also get a plan that presents flood risks, goals, the menu of flood risk management measures, and action items for doing mitigation. The plan is creditable under FEMA's Community Rating System.