

# KANSAS CITY DISTRICT

## Kansas Special Committee on Natural Resources

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US Army Corps  
of Engineers.





# Authority, Regulations, and Policies



## Section 5 of the Flood Control Act of 1941

### **Law:**

33 USC Section 701n (Public Law 84-99), as implemented by  
33 CFR Part 203

### **Appropriation:**

Flood Control and Coastal Emergencies (FCCE), the  
appropriation account that funds P.L. 84-99 activities.

### **Operational Policies:**

Engineering Regulation 500-1-1, Civil Emergency Management  
Program  
Engineering Regulation 1130-2-530, Flood Control Operations  
and Maintenance

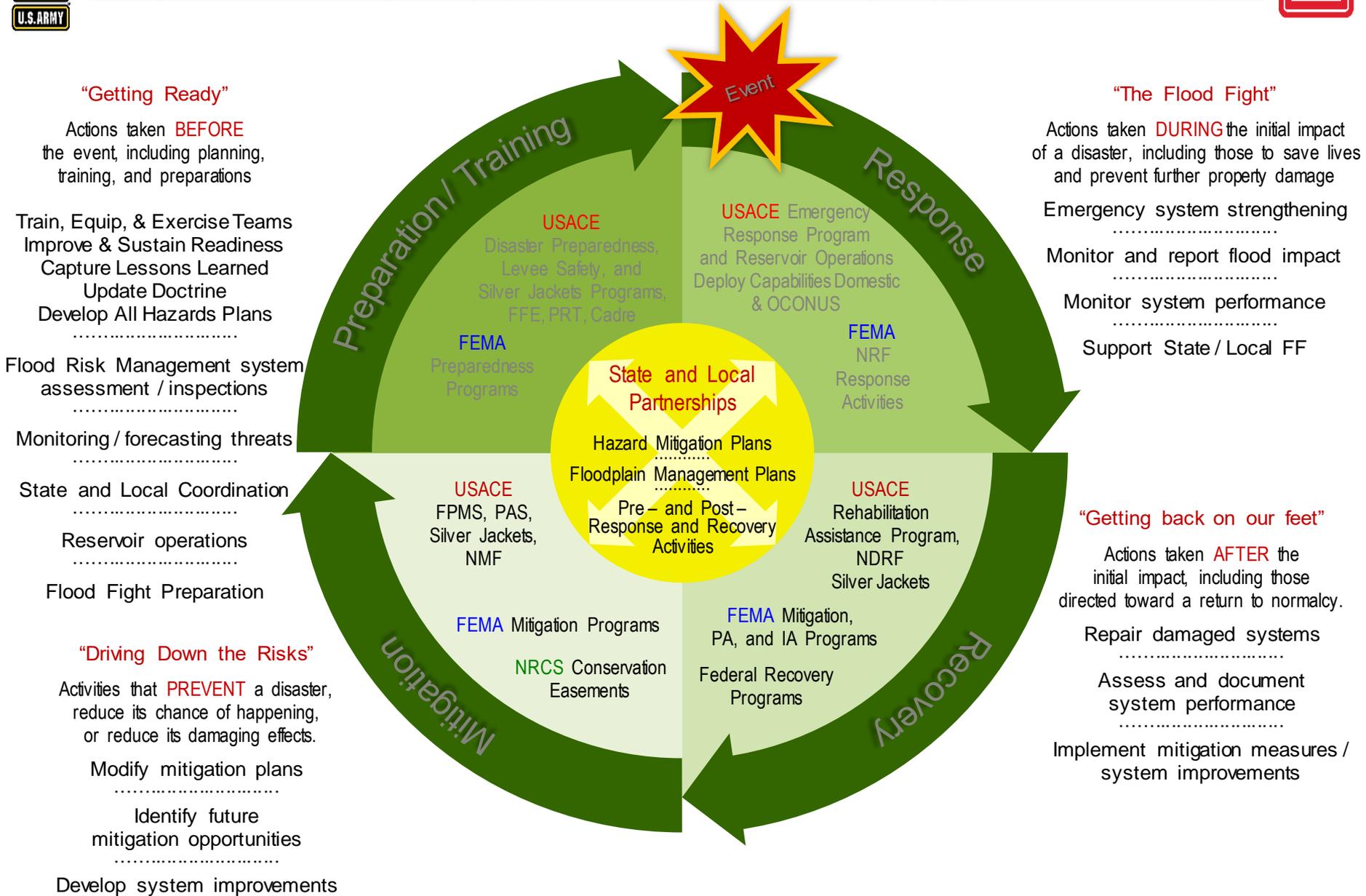
### **Funding Policy:**

Engineering Regulation 11-1-320, Civil Works Emergency  
Management Program  
Engineering Pamphlet 11-1-320, Civil Work Emergency Management  
Program Financial Management Process

**USACE assistance is supplemental to state and local efforts.**



# Life Cycle Approach - Risk Management

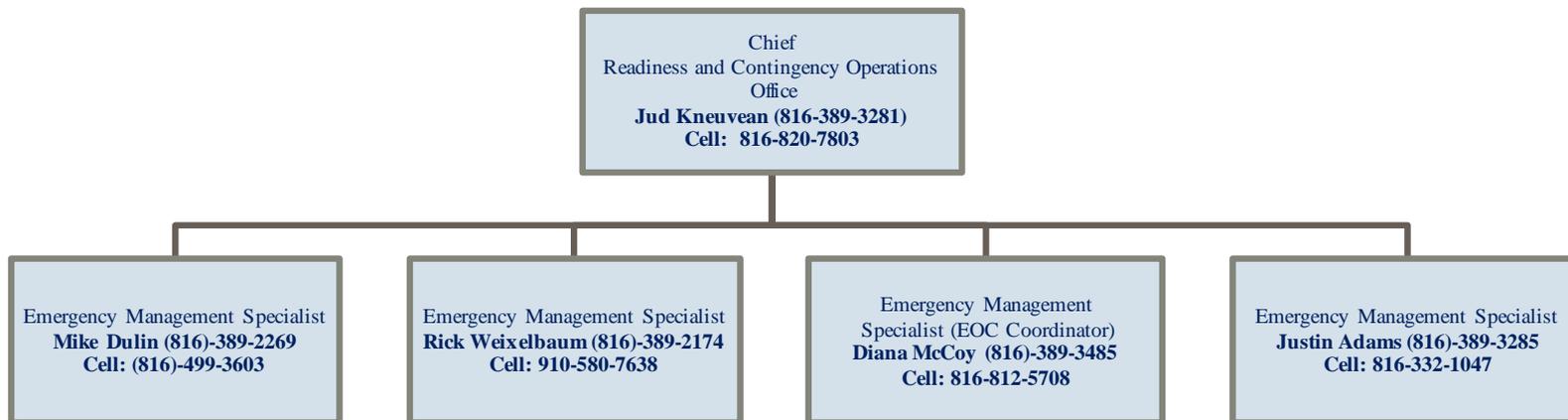




# Kansas City District Emergency Management



# 816-426-6320



- 24-hour Number
- Automatically pages EM staff
- Goal is to return all calls within 7 minutes
- After Duty Hours, Leave Name and Telephone Number



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# Flood Fight Equipment and Supplies



## Kansas City District Inventory



**4,054,042** Sandbags



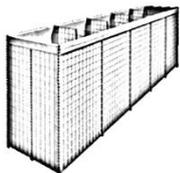
**205** Super Sacks



**25** Pumps with 7,500 feet of hose



**6** Sandbag Machines  
- 3 manual  
- 3 automatic



**10,000** Linear feet of HESCO bastion

- Light Plants
- Portable Generator
- Shovels
- BPA Pumps
- Heavy Equipment

- Plastic Sheeting
- Filter Cloth
- BPA Rotary Aircraft

## Equipment

- ✓ Can be provided by USACE upon request from local entity
- ✓ Request through your State Emergency Management agency
- ✓ May be asked to sign payment agreement, or replace items with work in kind
- ✓ Reimbursement may be waived by District Commander
- ✓ Supplemental to State/Local efforts

### Automatic Sandbag Filling Machine



- ✓ ~25 bags p/min
- ✓ ~1500 p/hr
- ✓ Belt Driven
- ✓ 3 Machines in KC District
- ✓ Manufactured in Lenexa, KS



# Preparedness – State of Kansas



- Meet prior to each flood season with Kansas Department of Emergency Management
- Flood Fight Training
  - Provided upon request to public entities and when resources are available
  - Requires local entity to provide certain support
  - No direct costs to a local entity
- Provided to the public sponsors of congressionally authorized flood risk management projects on a 5-yr cycle
- Recent flood fight training in Kansas
  - 2018 Topeka and Salina
    - Included Levee Sponsors from Lawrence, Ottawa, Osawatomie, North Topeka, South Topeka, Soldier Creek, Salina, Gypsum, Abilene, and Barnard
  - 2018 Flood Exercise Salina
  - 2017 Flood Exercise Osawatomie



**USACE assistance is supplemental to state and local efforts.**

**Can provide two types of assistance**

➤ **Technical**

➤ Providing People (technical resources, liaisons, etc)

➤ **Direct Assistance**

➤ Providing stuff (sandbags, sandbag filling machines, pumps, initiating contracts to support others)



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# March – May: Lower MO River Basin Flood



## March 2019:

- Rain on snowpack and frozen ground in Nebraska, and South Dakota.
- Record flows on tributaries below the large mainstem storage reservoirs.
- Unregulated runoff

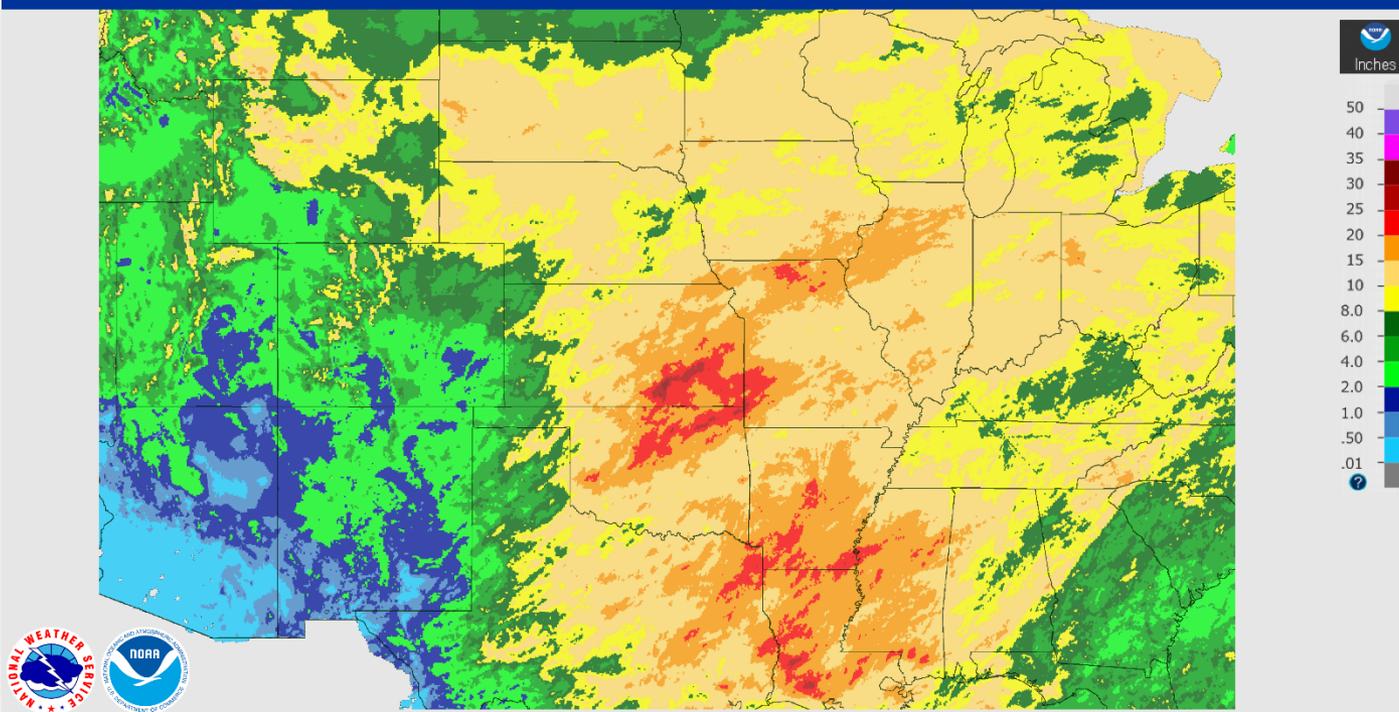
## May 2019:

- Record rainfall in Kansas and western Missouri, 3-5x normal.
- River and reservoir levels were still elevated from March event.
- 9 of 18 NWK Reservoirs hit record pool

### May 29, 2019 60-Day Observed Precipitation

Created on: May 29, 2019 - 21:29 UTC

Valid on: May 29, 2019 12:00 UTC





# NWK FLOOD RESPONSE – EOC ACTIVATION



- Activated March 13<sup>th</sup>
  - 240 days
  - ~1 week of 24hr ops
- 150+ personnel supporting
  - GIS
  - Engineering
  - Operations
  - Resource Management
  - Public Affairs
  - Contracting
  - PM/Planning
  - Real Estate
  - Construction
  - MSO
  - OC

## What we do in the EOC...

- Manage Response/Flood Fight Ops
- Daily Status/Information Briefs
- Stakeholder engagement calls
- Resource Requests
- Media Interviews/Public Messaging
- Response planning and execution
- Daily Deployments and Coordination (Internal and External)



Crisis Management Team (CMT) briefs



“high level decision making...”



# COMMON OPERATING PICTURE (K-COP)



NWK Emergency Operations Dashboard  
ags01.sec.usace.army.mil/portal/apps/MapSeries/index.html?appid=c39b012d34d84310a97629c2bf715b93

## NWK Emergency Operations Dashboard

NWK Common Operating Picture



- Weather
- River Gauge Forecast 72hr
- Water Management
- Dam Safety
- Levee Forecasts and Effects**
- Declining Flood Levels Forecast
- Assets Deployed
- ED Personnel in AOR

### Levee Overtop Forecast Tracker - 15 October 2019 PM Update

**Overtopped & Breached (Confirmed)**

**45**  
+0

- Bean Lake [Non-Federal]
- Big Bend [Non-Federal]
- Bonne Femme [Non-Federal]

**Overtopped (Confirmed)**

**0**  
+0

No Levees in Overtopping Status

**Forecasted to Overtop**

**0**  
+0

No Levees Forecasted to Overtop

**Less than 2' of Freeboard**

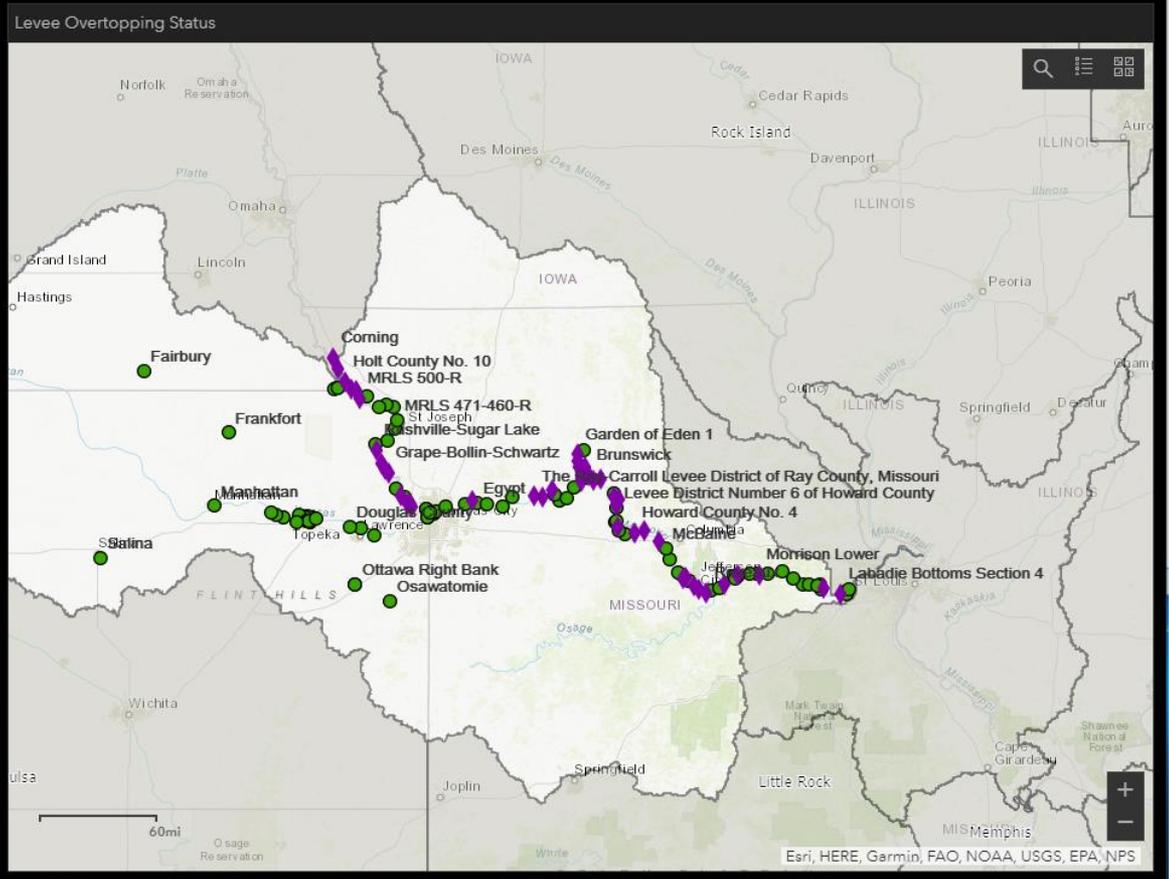
**0**  
+0

No Levees with less than 2' of Freeboard

**2 to 5 feet of Freeboard**

**0**  
+0

No Levees with 2' - 5' of Freeboard





# NWK FLOOD RESPONSE – DIRECT ASSISTANCE



**1.6** million sandbag issues

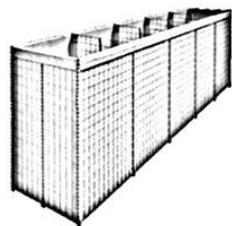


**40** pumps issued/leased



**4** auto sandbag machines deployed

**2** gravity fed sandbag machines deployed



**5600** linear feet HESCO deployed





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# KANSAS LEVEES - DAMAGES



- Federal Levees
  - MRLS 500-R
  - MRLS 471-460-R
  - MRLS 440-R
- Non-Federal Levees
  - Kansas Department of Corrections
  - Henry Pohl
  - Grape-Bollin-Schwartz
  - Wolcott DD Sections 1, 2, and 3



Henry Pohl Levee  
March 27<sup>th</sup> 2019  
Atchison County, KS

Elwood, KS  
March 2019



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# MRLS 500-R



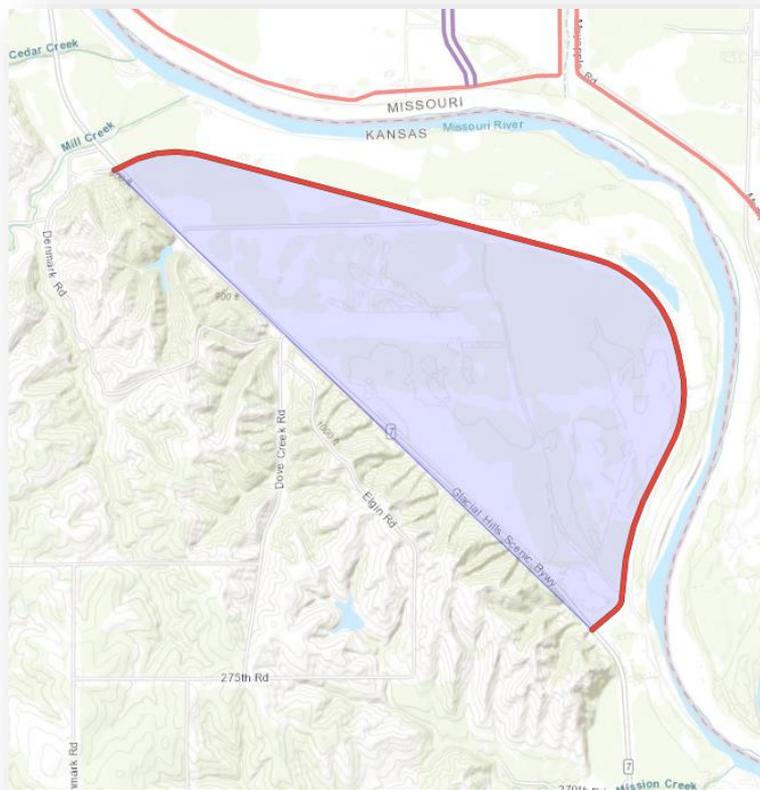
- 1<sup>st</sup> Federal levee to overtop and breach since 1993
- Doniphan County, KS



03/28/2019

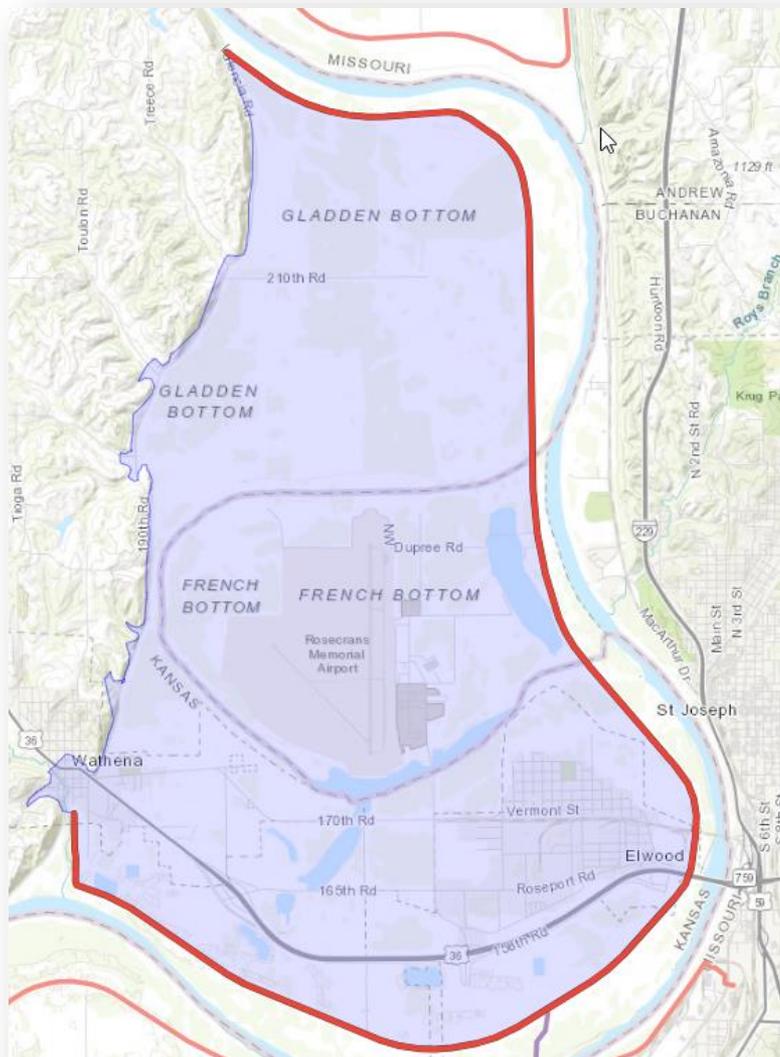


03/23/2019





# MRLS 471-460-R



Buchanan CO, MO/Doniphan CO, KS



## Levee Rehabilitation Purpose



- Repair of “Active” flood risk management (FRM) projects damaged or destroyed by floods and Federally authorized and constructed coastal storm risk management (CSRSM) projects damaged or destroyed by wind, wave, or water action of an other than ordinary nature.
- The intent of this program is to ensure that damaged flood risk management projects are operationally effective prior to the next flood season.



# Levee Rehabilitation Policy



- Active projects damaged by a flood or coastal storm
- Deficient/deferred maintenance is sponsor's responsibility
- Assistance is limited to pre-disaster condition and level of protection
- Cost share
  - Federal flood risk management project: 100% Federal
  - Non-Federal flood risk management project
    - 80% Federal and 20% Local
    - Local cost share can be cash, work-in-kind, or combination
    - Work-in-Kind value is based on the Corps' estimate to accomplish work



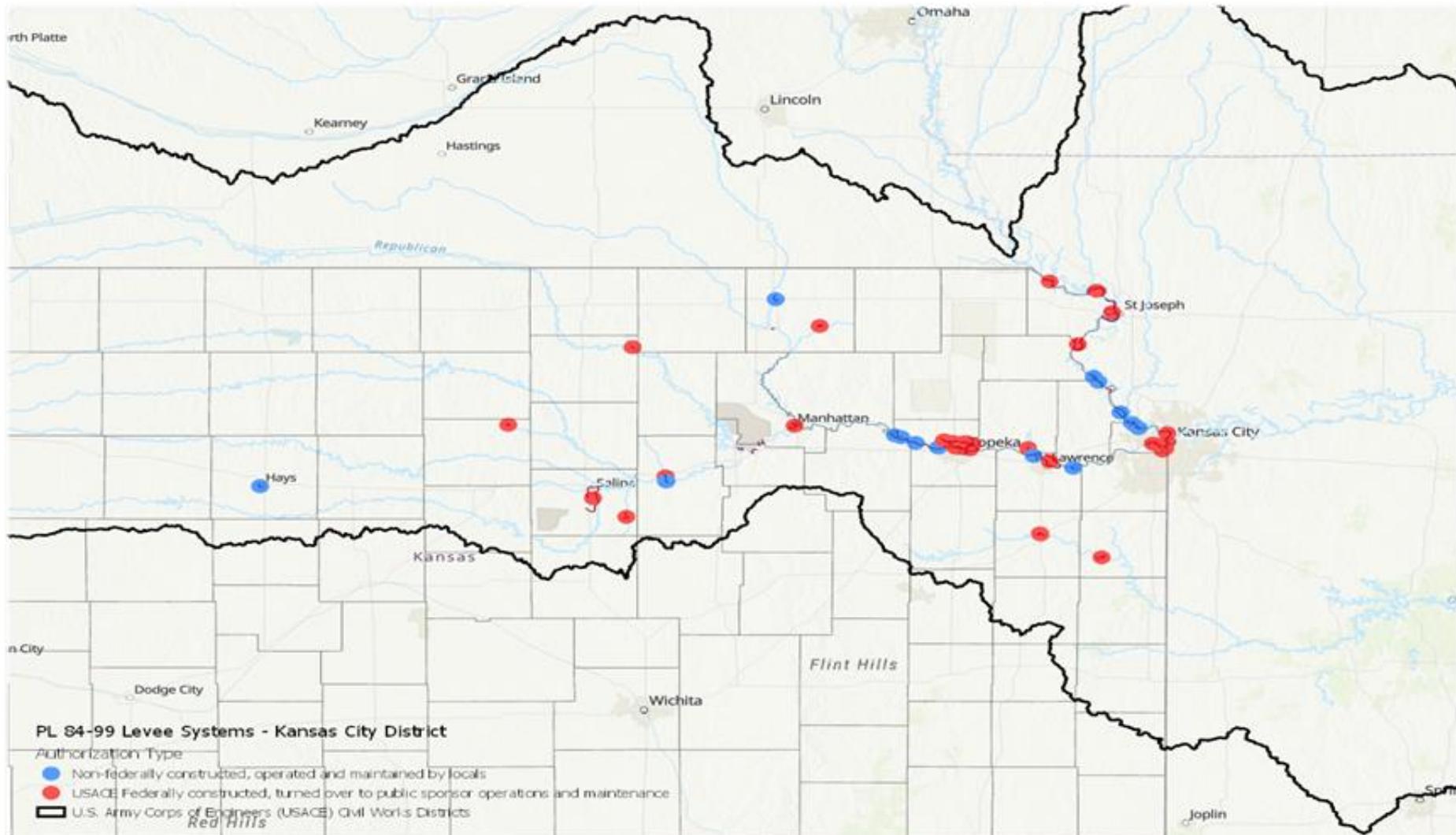
## Levee Rehabilitation Policy



- Damages must exceed \$15,000 (Local Maint.)
- Favorable Benefit Cost Ratio (BCR) is required
- Cooperation Agreement required
- Land, easements, rights-of-way, relocations and borrow are the public sponsors' responsibility to provide at no cost to the Federal Government



# “Active” PL84-99 Levee Systems Kansas City District - KS



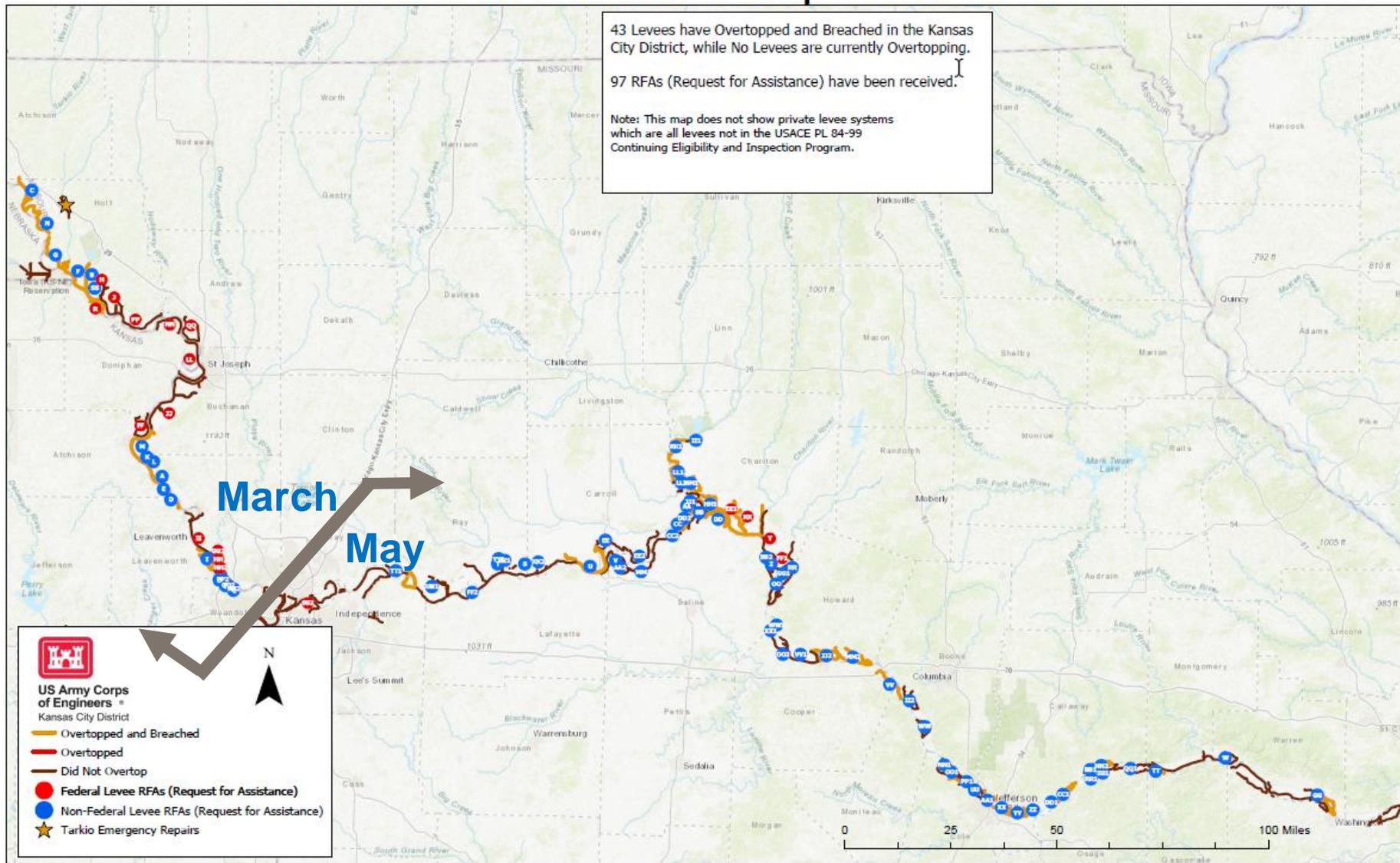
Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



# 2019 Requests for Assistance



## 2019 Missouri River Flood Event - Request for Assistance





# QUESTIONS



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