

# Kansas and Silver Jackets: Reducing Flood Risks through Coordination, Planning, and Action

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**Division of Water Resources  
Kansas Department of Agriculture**



# **Background: KDWR's regulatory responsibilities**

- KS Stream Obstruction Act and Levee Law require permits from the Chief Engineer for activities modifying the state's streams and floodplains including: dams, levees, other “stream obstructions”.
- Chief Engineer required to review and approve floodplain zoning ordinances before their adoption by local governing bodies.

# **Background: KDWR's involvement in the NFIP**

- In 1970, the Governor designated KDWR as the state coordinating agency for the National Flood Insurance Program
- We have three grants from FEMA to:
  - ▶ provide technical assistance to communities to help them develop proper floodplain-related ordinances
  - ▶ regular training in NFIP
  - ▶ improve and distribute floodplain mapping



# Kansas Hazard Mitigation Team



- Co-led by the KS Division of Emergency Management (**KDEM, part of Adjutant General's office** ) and KS Division of Water Resources (**KDWR**) through the
  - ▶ State Hazard Mitigation Officer (KDEM) and
  - ▶ State National Flood Insurance Program Floodplain Coordinator (KDWR)
- Other federal participation includes Corps of Engineers, FEMA, National Weather Service, US Geological Survey, NRCS and others
- Other state participation includes the Kansas Water Office and others

# Kansas Hazard Mitigation Team

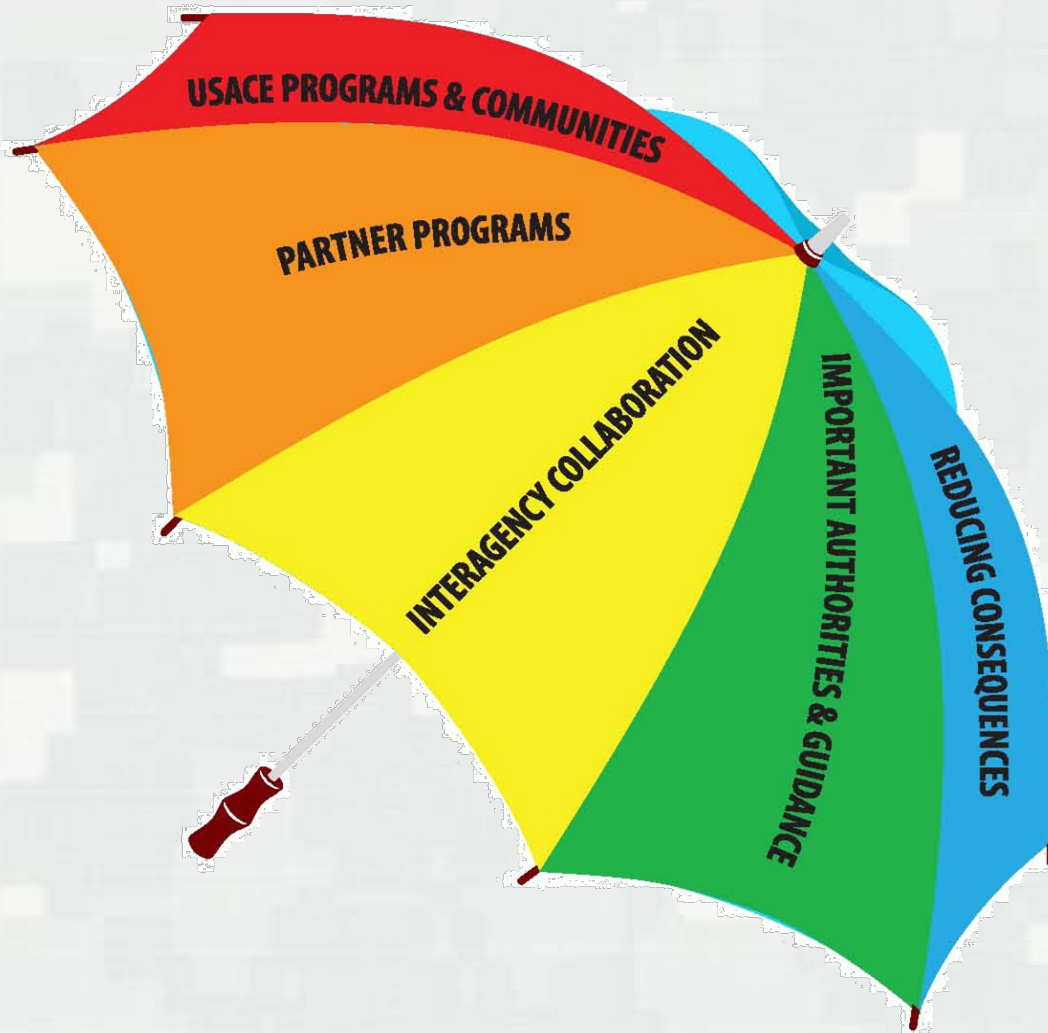
The team focus:

- Identify potential mitigation actions
- Develop strategies for implementing mitigation actions

Current priorities :

- Maintain State Hazard Mitigation Plan Updates
- Prioritize mitigation actions across KS
- Provide technical assistance for emergency managers in maintaining local hazard mitigation plans

# National Flood Risk Management



Planning • FMPS / PAS • Levee and Dam Safety  
FRM Business Line • FRM PCX • Regulatory  
Environmental • R&D • International • Coastal

FEMA • DOI • EPA • NOAA / NWS  
NOAA CSC • USBR • HUD • USDS • DHS  
NRCS • Tribes • States • Locals

Silver Jackets • IFRMC • FIFM-TF • ILTF / RFRMT  
Roundtables • Regional FRM Teams • CERB

EO 11988 • PL 84-99 • Section 404  
Unified National Plan • Risk MAP  
Disaster Response • Mitigation

Land Use Planning / Zoning • Emergency Services  
Contingency Response • Evacuation • Flood Fighting  
Water Resources Management • Building Codes  
Floodproofing • Environmental Protection



# Silver Jackets



## What is **SILVER JACKETS** ?

**Silver Jackets** is the US Army Corps of Engineers (USACE) Civil Works program enabling participation in the states' hazard mitigation teams. This is about collaboration between USACE, the Federal Emergency Management Agency, and other federal, state and local agencies to create an interagency team at the state level to develop and implement solutions to state **natural hazard** priorities.

The **Silver Jackets Program** provides a formal and consistent strategy for an interagency approach to planning and implementing measures to reduce the risks associated with natural hazards.

**Many Agencies - One Solution – Be Risk Aware!**





# Background



## The program's desired outcomes are

- Reduced flood risk
- Improved situational awareness, where agencies better understand and leverage each other's programs
- Collaboration between various agencies, coordinated programs, cohesive solutions
- Multi-agency technical resource for state and local agencies
- Mechanism for establishing relationships to facilitate integrated solutions post-disaster

**Many Agencies - One Solution – Be Risk Aware!**







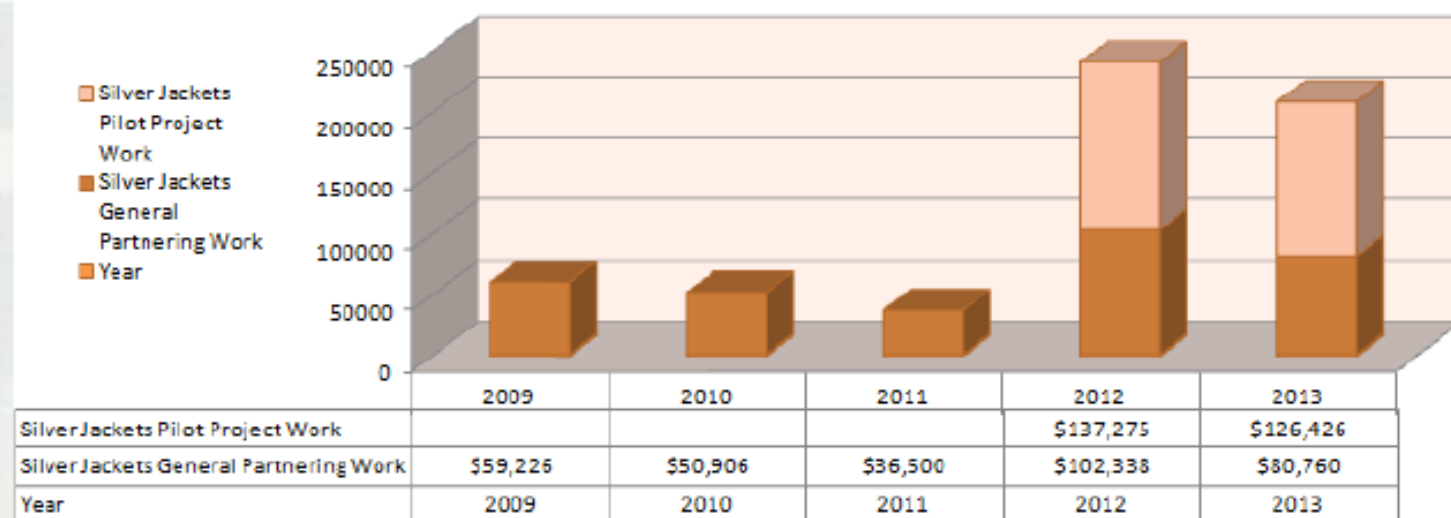
# Silver Jackets in KC District



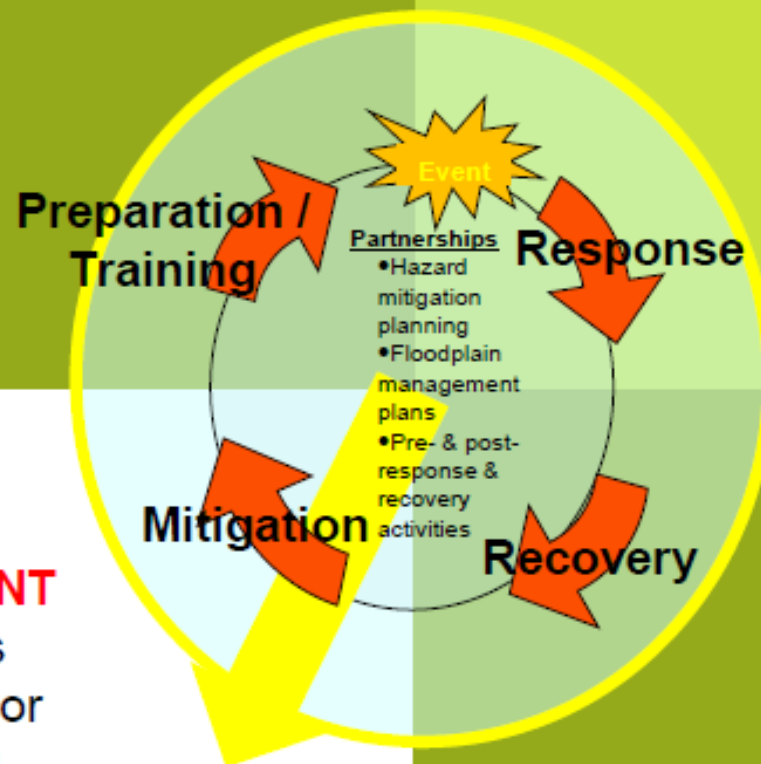
## Accomplishments with hazard mitigation team

- ▶ Steady presence in state hazard mitigation team meetings since 2009
- ▶ Regular "Status Update" reports (originally for upward reporting)
- ▶ Invitational Travel Orders (ITOs) to FRM workshop, 3 years in a row
- ▶ ITOs to Natural Hazards workshops
- ▶ Pilot Projects: 3 (as of Dec 2012)

**Kansas City District Silver Jackets Funding**



# Flood Risk Management with Floodplain Management Plans / Planning



## “Driving Down the Risks”

Measures that **PREVENT** a disaster, reduce its chance of happening, or reduce its damaging effects.

- Modify mitigation plans
- Identify future mitigation opportunities
- Develop system improvements



# Silver Jackets Projects in Kansas



## Wildcat Creek, Manhattan, KS

- a floodplain management plan
- flood forecast inundation mapping

## Cross Creek, Rossville, KS

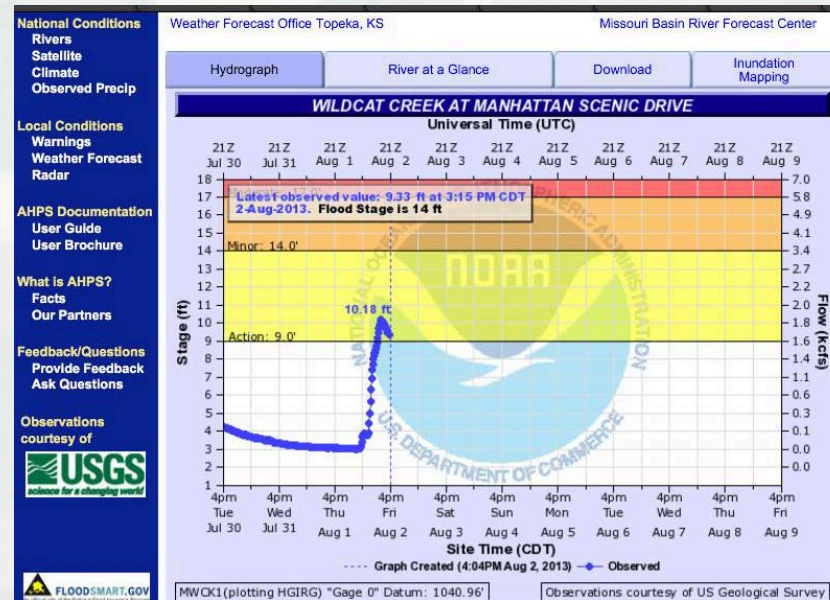
- flood forecast inundation mapping

## Missouri River Inundation Maps, Leavenworth, KS

- flood inundation mapping
- development of a process for consistent FIM for remainder of Missouri River

## Big Blue River, Riley and Pottawatomie Counties

- a floodplain management plan
- flood forecast inundation mapping below a dam
- future conditions inundation mapping







# NWS Advanced Hydrologic Prediction Service



## Wildcat Creek at MANHATTAN SCENIC DRIVE, KS (MWCK1)

### Data Type

- ☒ Inundation Levels
- ☐ Flood Categories
- ☐ Current/Forecast

### Inundation Levels

NAVD88	Stage
1,072.0*	31.0*
1,071.0*	30.0*
1,070.0*	29.0*
1,069.0*	28.0*
1,068.0*	27.0*
1,067.0*	26.0*
1,066.0*	25.0*
1,065.0*	24.0*
1,064.0*	23.0*

### Major Flooding Begins

1,063.0*	22.0*
1,062.0*	21.0*
1,061.0*	20.0*
1,060.0*	19.0*
1,059.0*	18.0*
1,058.0*	17.0*

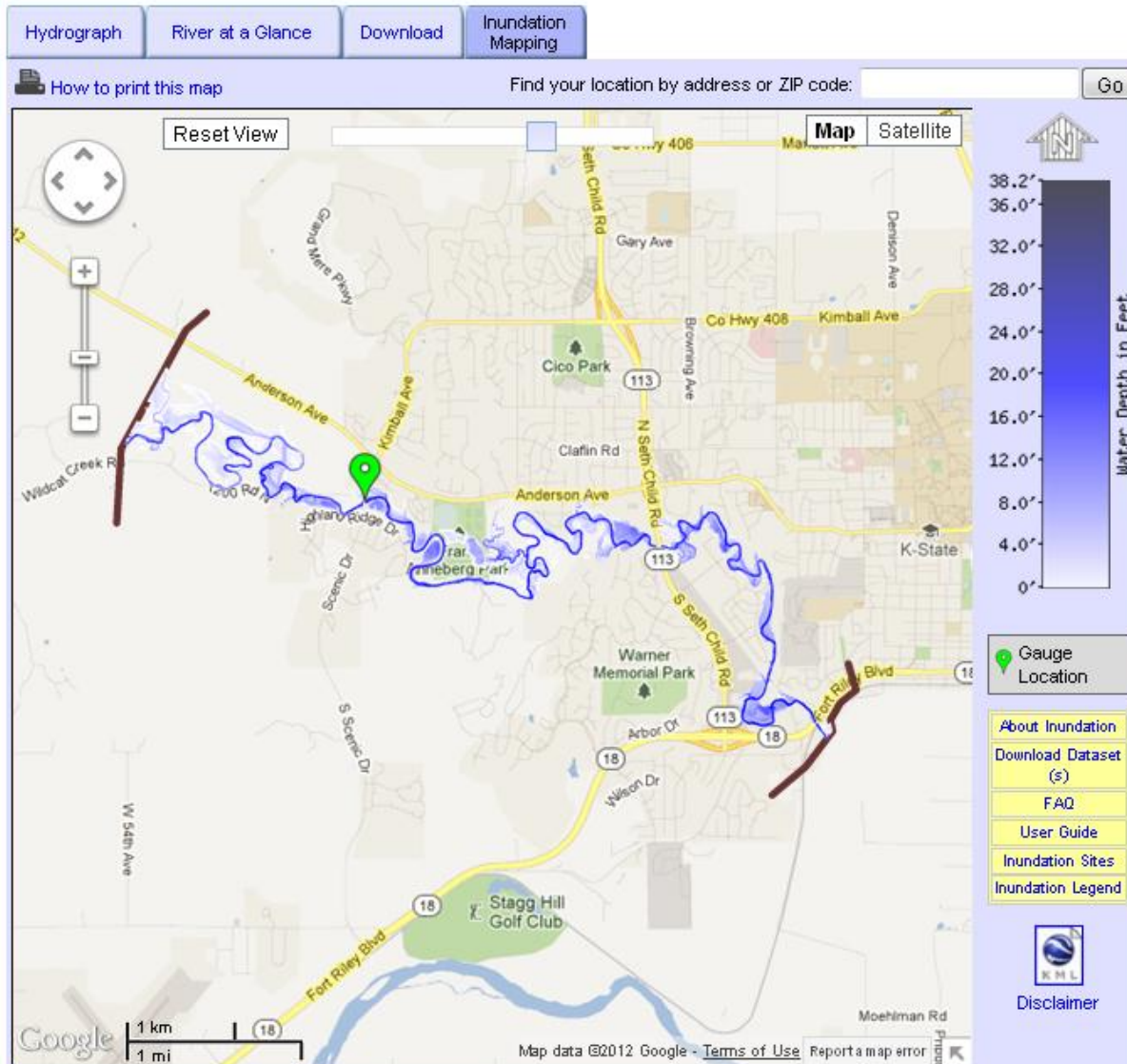
### Moderate Flooding Begins

1,057.0*	16.0*
1,056.0*	15.0*
1,055.0*	14.0*

### Minor Flooding Begins

1,054.0*	13.0*
1,053.0*	12.0*

\* = Extended rating





# Application for the Mobile Home Park



Wildcat Creek at  
MANHATTAN SCENIC  
DRIVE, KS (MWCK1)

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Hydrograph

River at a Glance

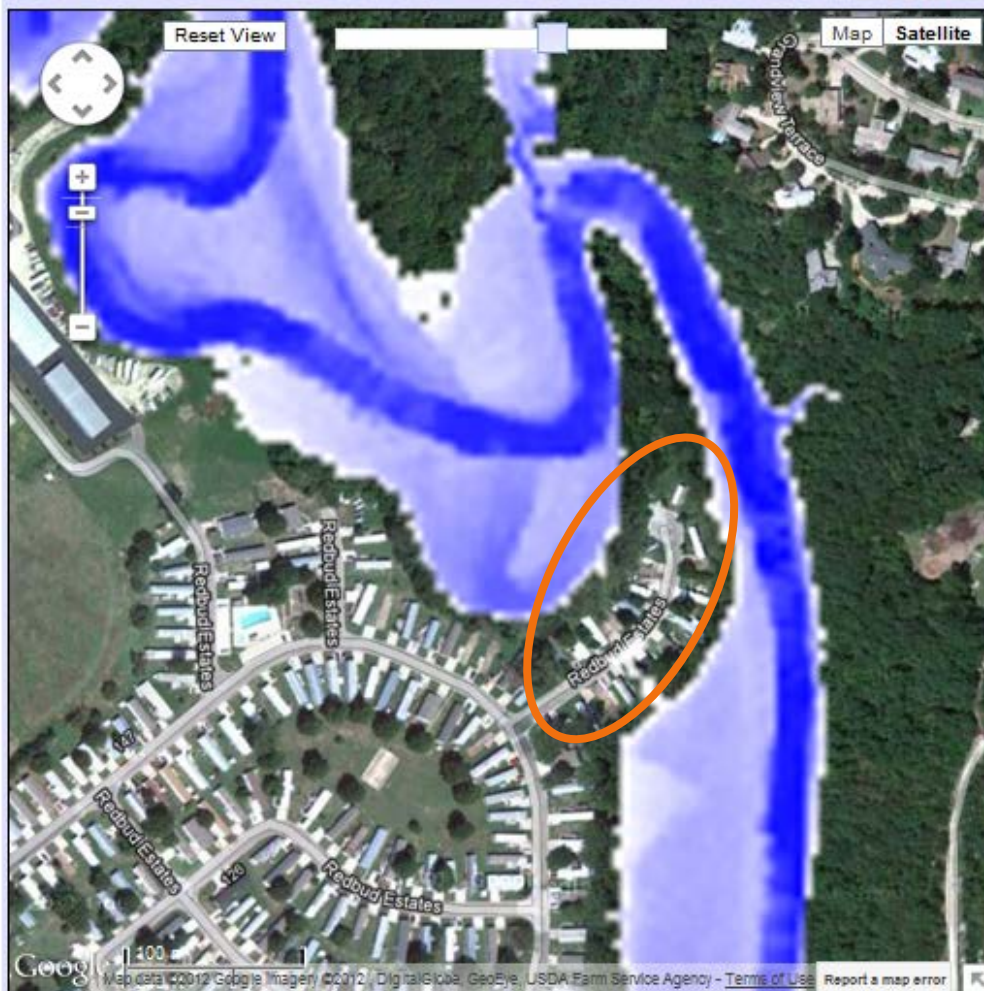
Download

Inundation  
Mapping

How to print this map

Find your location by address or ZIP code:

Go



Click on mapped inundation to see water depth values for that location.

## Current Stage:

2.6 ft at 08/08/2012 15:15:00 UTC

## Selected Inundation

NAVD88: 1,062.0\* ft

Stage: 21.0\* ft

## Mouse Location

Depth: 0 ft

Lat: 39.181680

Lon: -96.603490

Gauge  
Location

- About Inundation
- Download Dataset  
(s)
- FAQ
- User Guide
- Inundation Sites
- Inundation Legend

User guide  
video on  
**YouTube**



Disclaimer







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Hydrograph

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Go



Click on mapped inundation to see water depth values for that location.

## Current Stage:

2.6 ft at 08/08/2012 15:15:00 UTC

## Selected Inundation

NAVD88: 1,064.0\* ft

Stage: 23.0\* ft

## Mouse Location

Depth: 0 - 2 ft

Lat: 39.182346

Lon: -96.597567

Gauge  
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Disclaimer





**Questions?**

# Kansas Hazard Mitigation Team

## Proposed ideas

- Pilots for Planning Assistance to States: Drought hazard
- Revise website and use internal functions
- SimSuite webviewer for sharing project information
- Assist state teams in encouraging FEMA Community Rating System
  - ▶ survey to better engage communities
- Annual flood summit
  - ▶ Possibly in Kansas City
  - ▶ Multiple agencies
  - ▶ Intended for local and county officials across the Midwest
  - ▶ Coincide with NWS Flood Awareness Week

