



Kansas Department of Agriculture
Water Structures Program
Special Committee on Natural Resources

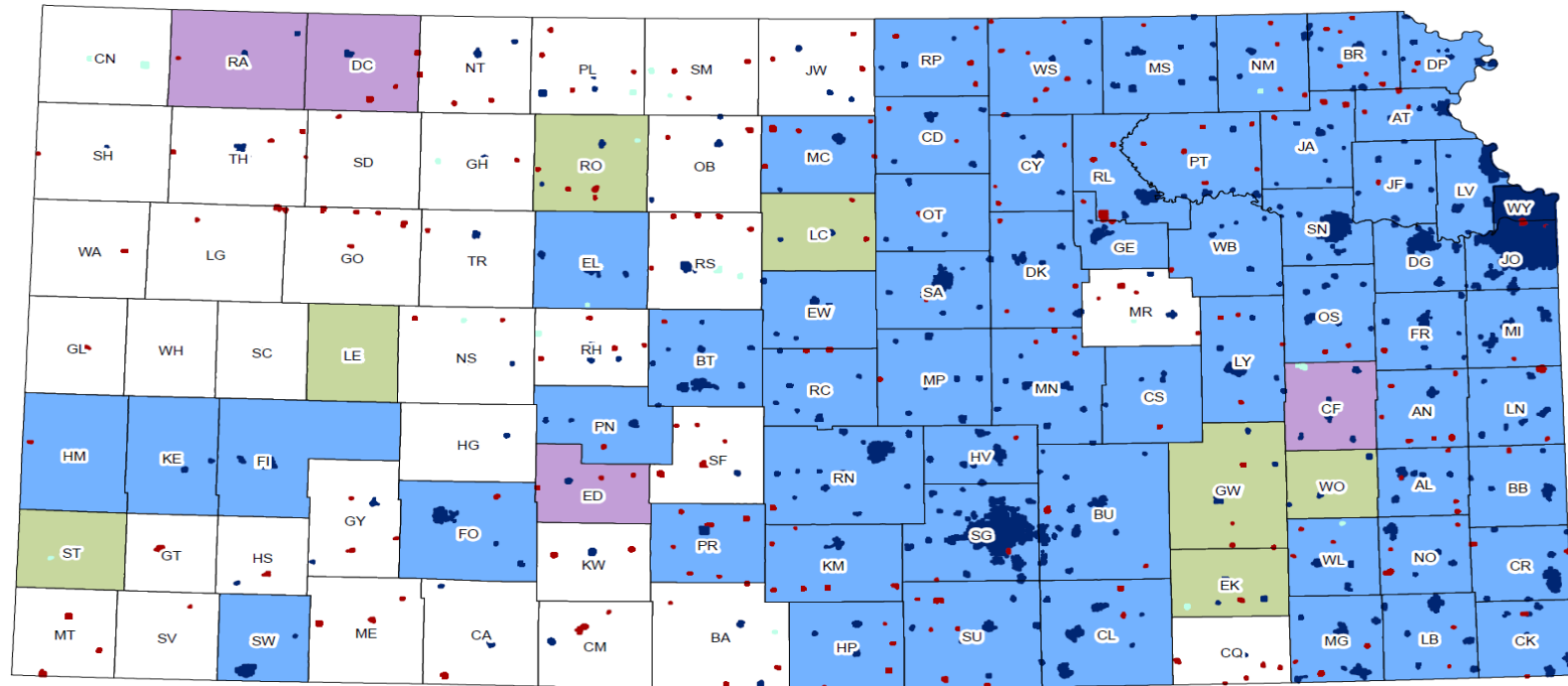
November 12, 2019

Kansas Department of Agriculture
Division of Water Resources



NFIP Participation

Kansas National Flood Insurance Program Participation



4/3/2019

County Status

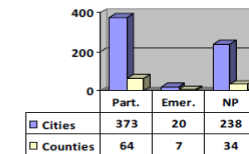
- Participating
- Participating - Emergency
- Not Participating
- No FIRM

Community Status

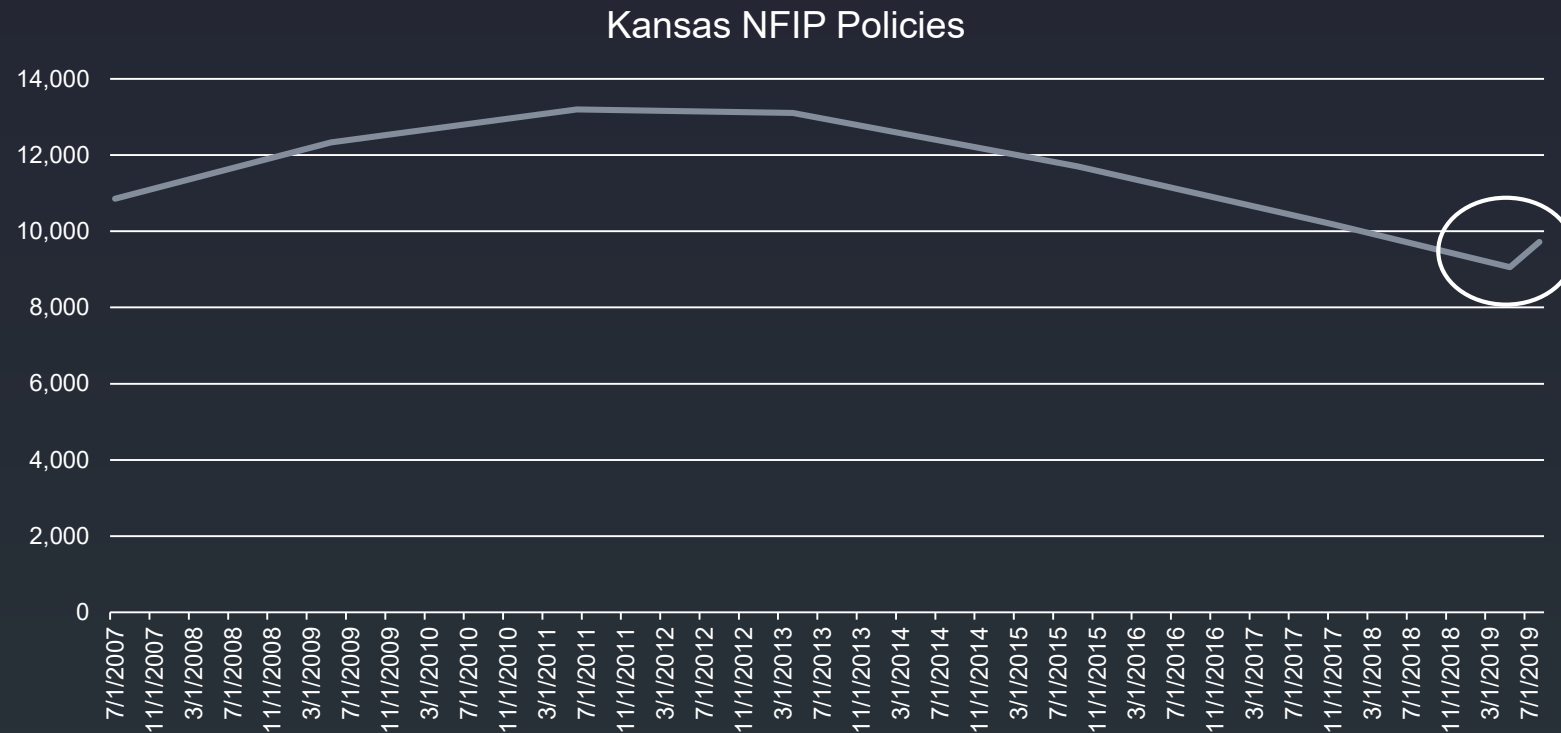
- Not Participating
- Participating - Emergency
- Participating



0 12.5 25 50 75 Miles



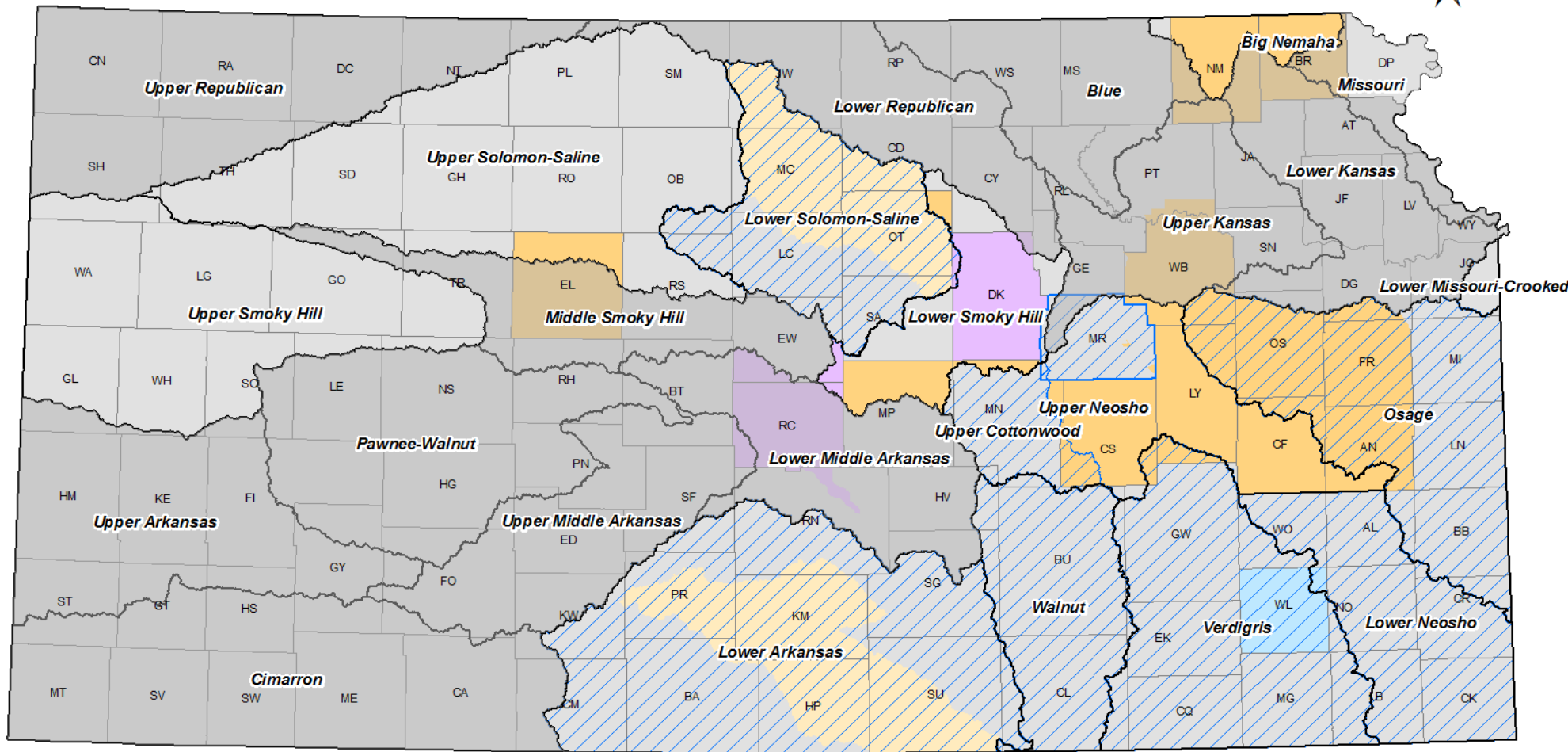
NFIP Policies



- 657 New Policies
 - BU, NO, RN and SG
- 287 Claims
 - SG, BU and SU
- \$3,874,019

Floodplain Mapping Projects

Current Floodplain Mapping Projects and Custom Watersheds



October 1, 2019

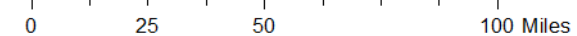
Project Status

- Draft
- Preliminary
- FOA Complete (Non-Reg Zone A)

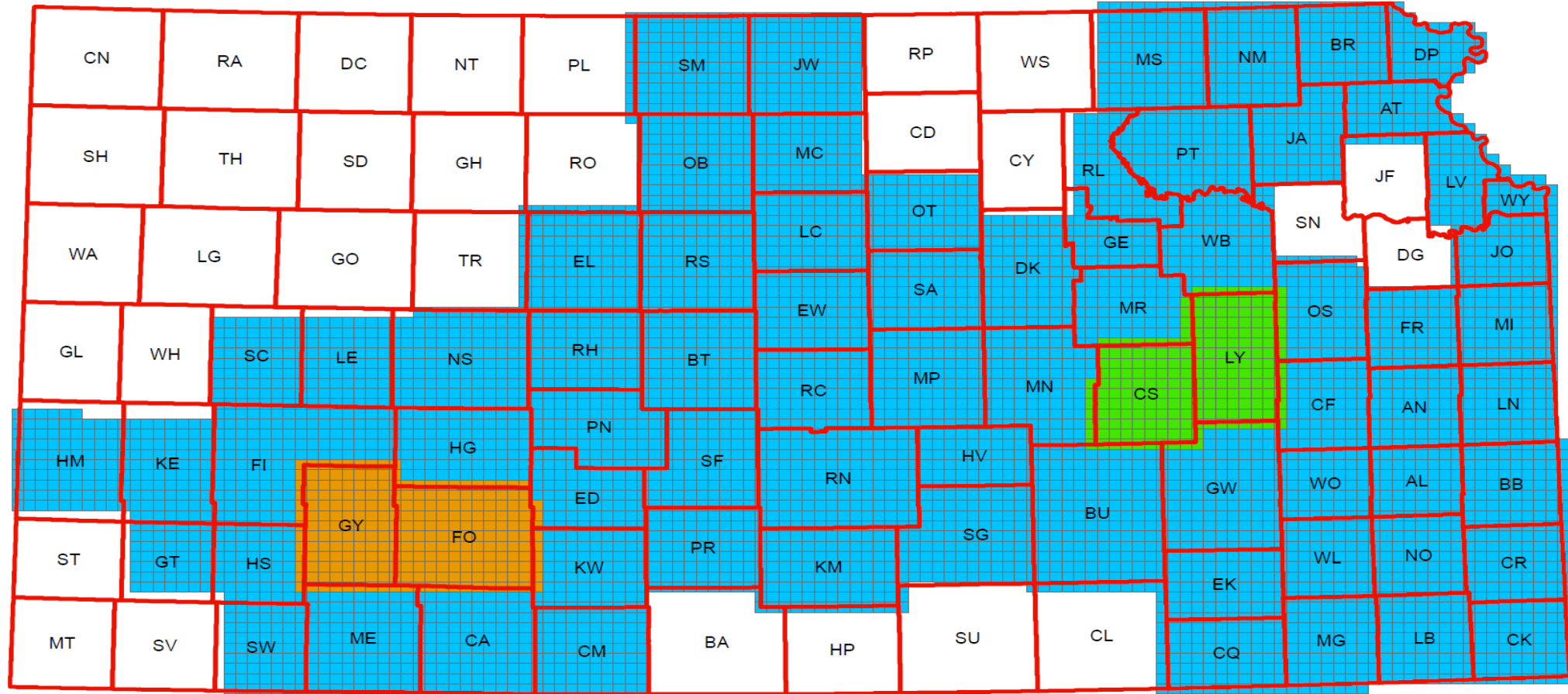
Watershed Projects

- Custom Watersheds (labeled)
- LFD
- FY18 BLE Projects - In Development
- Proposed FY19 BLE*

*Not all watershed areas will be included. Please check with KDA for details.



LiDAR Mapping Projects



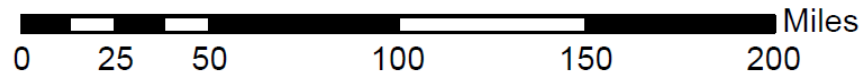
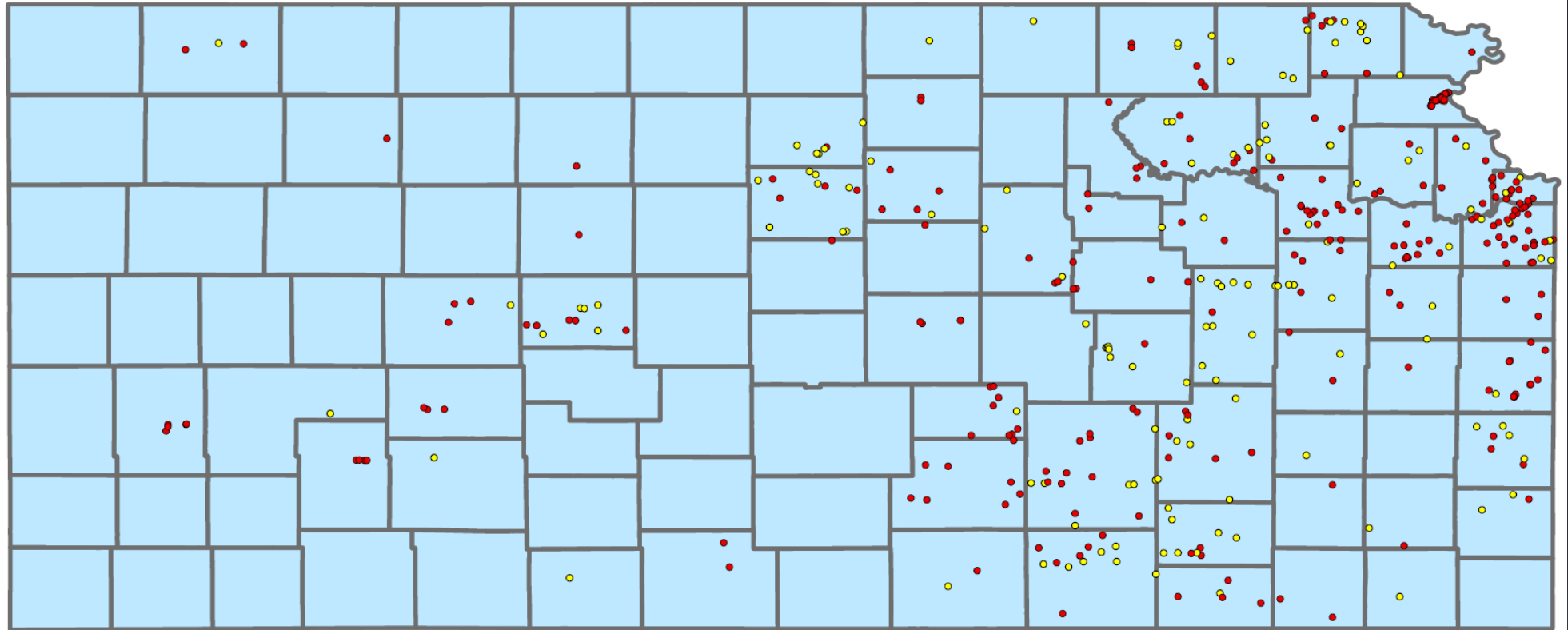
2018 NRCS Priority Areas

QL

- QL1
- QL2
- LY_CS_2104_sq_miles

2018 LiDAR Proposal

Significant and High Hazard Dams



Significant and High Hazard Dams

- H
- S
- Counties

Dam Safety

County	Reservoir/Dam No.	Type of Damage
Wabaunsee	Private dam NW of Alma	Breached
Nemaha	NM/BR WJD #7 Site	Controlled breach
Bourbon	Marmaton Site N-1 Cedar Creek Lake	Partial breach
Hodgeman	Horsethief Reservoir	Damaged sluice gate
Wilson	Cedar Creek DD #2	Plugged inlet
Wilson	Cedar Creek FRD #4	Plugged inlet
Douglas	Lonestar Lake	Damaged <u>articulated concrete blocks</u>
Franklin	PT Creek Site H-6 Timber Lake	Pipe failure
Dickinson	Turkey Creek Site #8	Sink holes
Franklin	Private dam DFR -0064	Sloughing of slopes
Wabaunsee	Mill Creek Site MPD 53	Plugged Inlet
Multi-County	*Elk River WSJD #47	5 or 6 severely damaged dams
Montgomery	*Twin Caney Creek	Severely damaged

DNM-0329

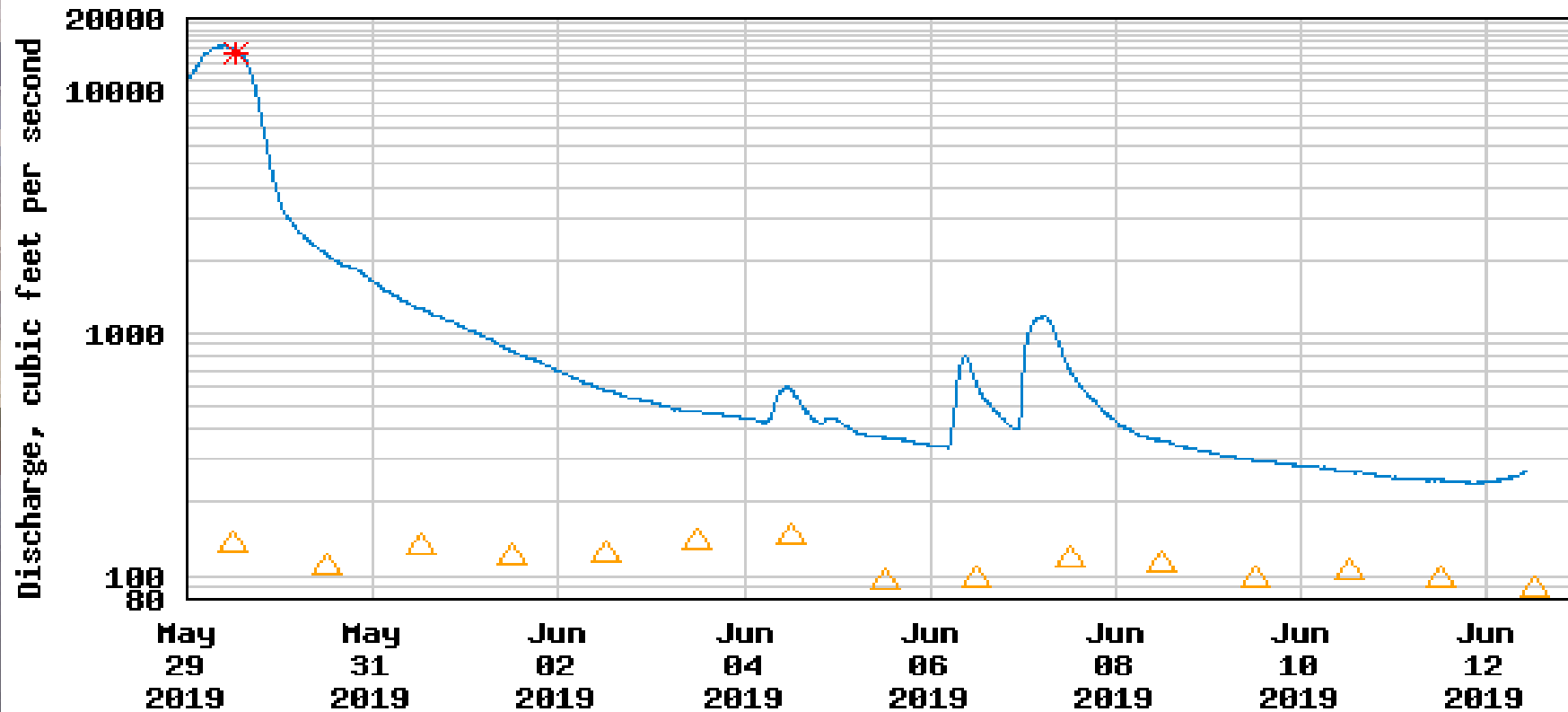


DNM-0329



DNM-0329

USGS 06890100 DELAWARE R NR MUSCOTAH, KS



---- Provisional Data Subject to Revision ----

△ Median daily statistic (49 years) * Measured discharge
— Discharge

Levees



- 8 Ag Levees Reported Damage

KDHE Response During 2019 Flooding

Tom Stiles, Director

Bureau of Water

Kansas Department of Health and Environment

November 12, 2019

- Between May 1 and July 1:
 - 140 Facilities bypassed ~1.3 Bgals in 452 incidents
 - Line Breaks, System Overruns, Line Blockages
 - Overtopping of wastewater lagoons – recovery after water receded
 - Statewide Stream Advisory to stay out of water for a variety of reasons
 - Atchison continues to be plagued by high Missouri River
 - Permit limit violations noted throughout Summer
- CAFOs
 - 38 Facilities discharged 58 times
 - 84 Facilities asked to dewater lagoons
- Remediation – Minor impacts from inundation; mostly project delays
- Brine Disposal – Rains diluted brines used for underground hydrocarbon storage operations, rendering them unusable

- 14 Boil Water Advisories from line breaks, pressure loss, inundated wells or loss of chlorine residual
- 3 Communities around Perry Lake had to go to alternative suppliers; one, Lakeside Village, continues to this day
- Success Story: Fredonia and Public Water Supply District #23
 - Loss of old water treatment plant along Fall River
 - Scramble to get new plant operating
 - Able to maintain service to 24 PWS systems through partial operations and water conservation measures
 - Water treatment plant now fully operational

Kansas WW/PWS Takeaways from Flooding

1. Need for communities to employ asset management to build resiliency in water and wastewater systems: plants, collection and distribution systems.
2. Long-term investments in infrastructure needed to replace aged systems
3. PWS Emergency Plans, required by K.S.A. 65-171n, need to be updated and real
 - Identification of alternative water supplies
 - Contingency plans for supplying water if system goes down

▶ KANSAS WATER OFFICE

Earl Lewis, Acting Director
Special Committee on Natural Resources
November 12, 2019



Kansas Water Office

K.S.A. 74-2608

- Collect and compile information pertaining to climate, water and soil as related to the usage of water for agricultural, industrial and municipal purposes and the availability of water supplies in the several watersheds of the state;
- Develop a state plan of water resources management, conservation and development for water planning areas;
- Develop and maintain guidelines for water conservation plans and practices; and
- Shall establish guidelines as to when conditions indicative of drought exist.



Kansas Water Office

Potential recommendations:

- Improve river forecasting
 - Additional data collection (as recommended by NWS)
- Improve ability to produce flood inundation maps (tool in progress)
 - Allow “real-time” capability
 - Include forecasted flows
 - Updating/maintenance of tool will require additional funding
- Consideration of online portal for public access/usability
 - Compiles all available data into one portal
 - Ability to provide location-specific information
- Basin-by-Basin evaluation/planning

