Wabaunsee County Phase II Flood Risk Review

Wabaunsee County– Phase II

December 11, 2018

THANK YOU FOR COMING

This should be informal and interactive

Meeting Agenda

- Introductions
- Short Presentation
- Review Flood Hazard Data
- Discussion

How Did We Get Here?

- Discovery Project (Middle KS Watershed) – 2015
- Phase I – October 2016
  - New floodplain mapping for the areas in Wabaunsee County in Middle Kansas Watershed.
- Phase II – October 2017
  - New floodplain mapping for the Kansas River through Pottawatomie County (both sides of the river).
  - New floodplain mapping for the remaining areas in Wabaunsee County. (Neosho Headwaters, Upper Marais des Cygnes, Lower Kansas)

Middle Kansas Mapping Updates: Phase I & II

Phase II Studies
Analysis for these studies will be performed in 2017 & 2018. All Phase I studies are completed.

New Zone AE or AH - Rainfall Runoff
Rainfall Runoff hydrology will be performed. Survey will be collected for structures. Detailed Hec-Ras hydraulics will be conducted, and a floodway will be created for AE zones, not AH zones.

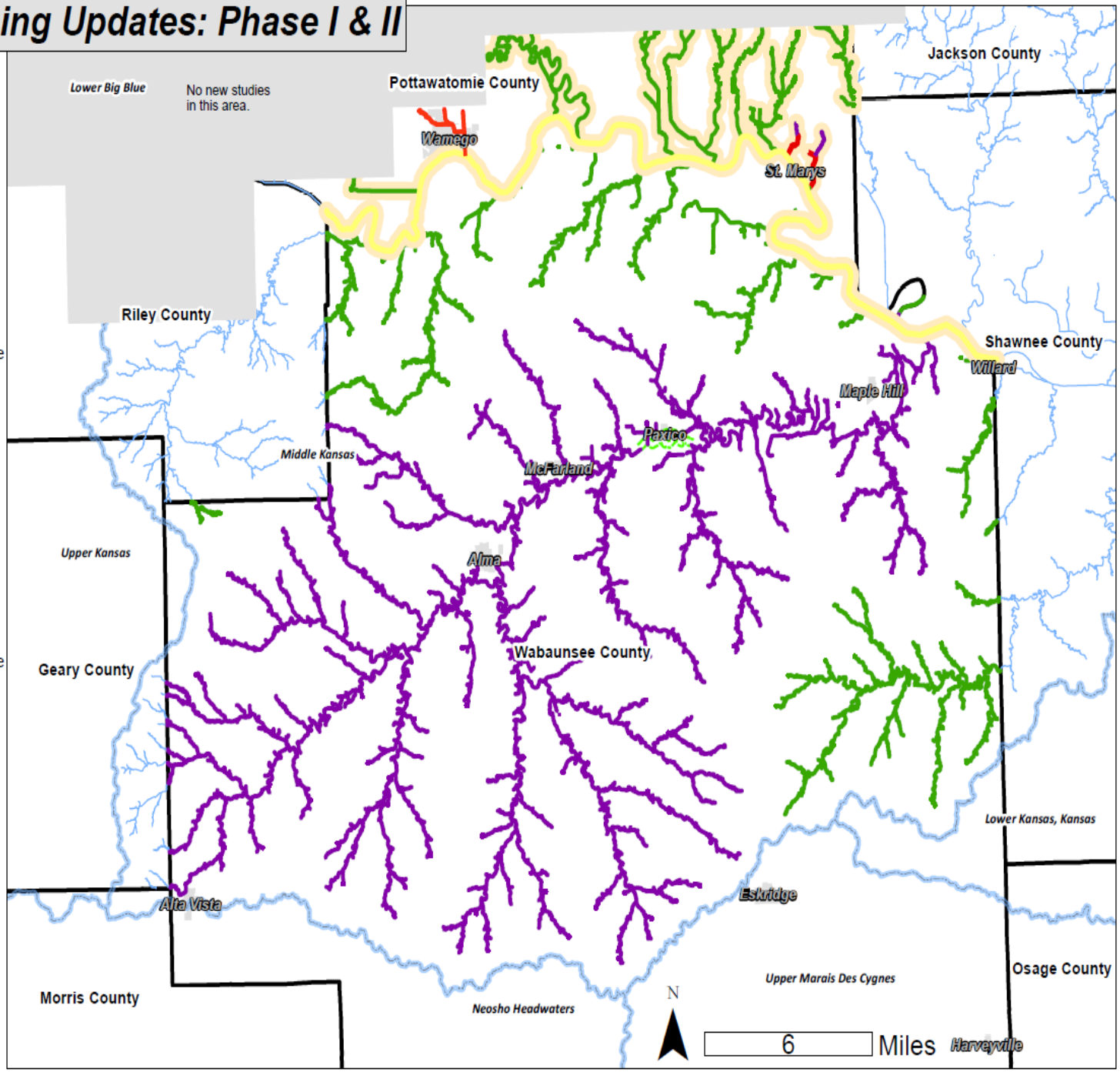
New Zone AE - Enhanced
Rainfall-Runoff Hydrology will be performed for this stream, and calibrated with local gage information. Survey data will be collected. No floodway will be shown on map.

New Zone AE - Gage
Gage Analysis hydrology will be performed. Survey will be collected for structures. Detailed Hec-Ras hydraulics will be conducted, and a floodway will be created.

New Zone A - Enhanced Hydrology, Rainfall Runoff
Rainfall-Runoff Hydrology will be performed in this watershed. Hydrology will be a combination of Rainfall Runoff and regression equation flows.

New Zone A
Regression or localized regression will be used.

No Proposed Studies
Recent studies preformed for these streams, and no mapping is proposed.



Neosho Headwaters 2017 Mapping Updates

Scoped Studies

New Zone A - Gage Analysis
New Zone A studies will be developed for these streams using Gage Analysis calibrated hydrology and Hec-Ras 2D hydraulics.

New Zone A - Rainfall Runoff
New Zone A studies will be developed for these streams using Rainfall Runoff hydrology and Hec-Ras 2D hydraulics.

New Zone AE- (LDS) - Gage Analysis
New Zone AE without floodway studies will be developed for these streams using Gage Analysis calibrated hydrology, and field-measured structure data included in the 2D Hec-Ras hydraulics model. No floodway will be shown on the maps, but Base Flood Elevations will be shown.

New Zone AE- (LDS) - Rainfall Runoff
New Zone AE without floodway studies will be developed for these streams using rainfall runoff hydrology, and field-measured structure data included in the 2D Hec-Ras hydraulics model. No floodway will be shown on the maps, but Base Flood Elevations will be shown.

New Zone AE - Gage Analysis
New Zone AE studies will be developed for these streams using Gage Analysis hydrology. Survey data will be collected and incorporated into the Hec-Ras hydraulics model, Floodways will be developed.

New Zone AE - Rainfall Runoff
New Zone AE studies will be developed for these streams using Rainfall Runoff hydrology. Survey data will be collected and incorporated into the Hec-Ras hydraulics model. Floodways will be developed.

Zone AE, Redelineation
Existing Zone AE studies for these will not be restudied, but the water surface elevations will be re-mapped on newer LiDAR topography, creating updated boudaries for the Special Flood Hazard Area.

No New Study
Currently unmapped area. No studies proposed

Area scoped as part of Upper Marais des Cygnes project.

Area scoped as part of Lower Cottonwood project.

Upper Marais des Cygnes Watershed 2017 Mapping Updates

Scoped Studies

New Zone A - Gage

New Zone A studies will be developed for these streams using Gage Analysis hydrology and Hec-Ras 2D hydraulics.

New Zone A - Hec-Ras

New Zone A studies will be developed for these streams using Rainfall Runoff hydrology and Hec-Ras 2D hydraulics.

Zone A - No New Study

Zone A. No new studies proposed. (Douglas & Miami Counties)

New Zone AE - Rainfall Runoff

New Zone AE studies will be developed for these streams using Rainfall Runoff hydrology. Survey data will be collected and 1D Steady State Hec-Ras will be used for hydraulics.

New Zone AE - Existing Study

New study exists for the Marais des Cygnes River developed during levee certification efforts. This study will be incorporated with the new studies developed.

Zone AE - No new study

Zone AE. No new Studies proposed. (Miami County)

Zone AE - Redelineation

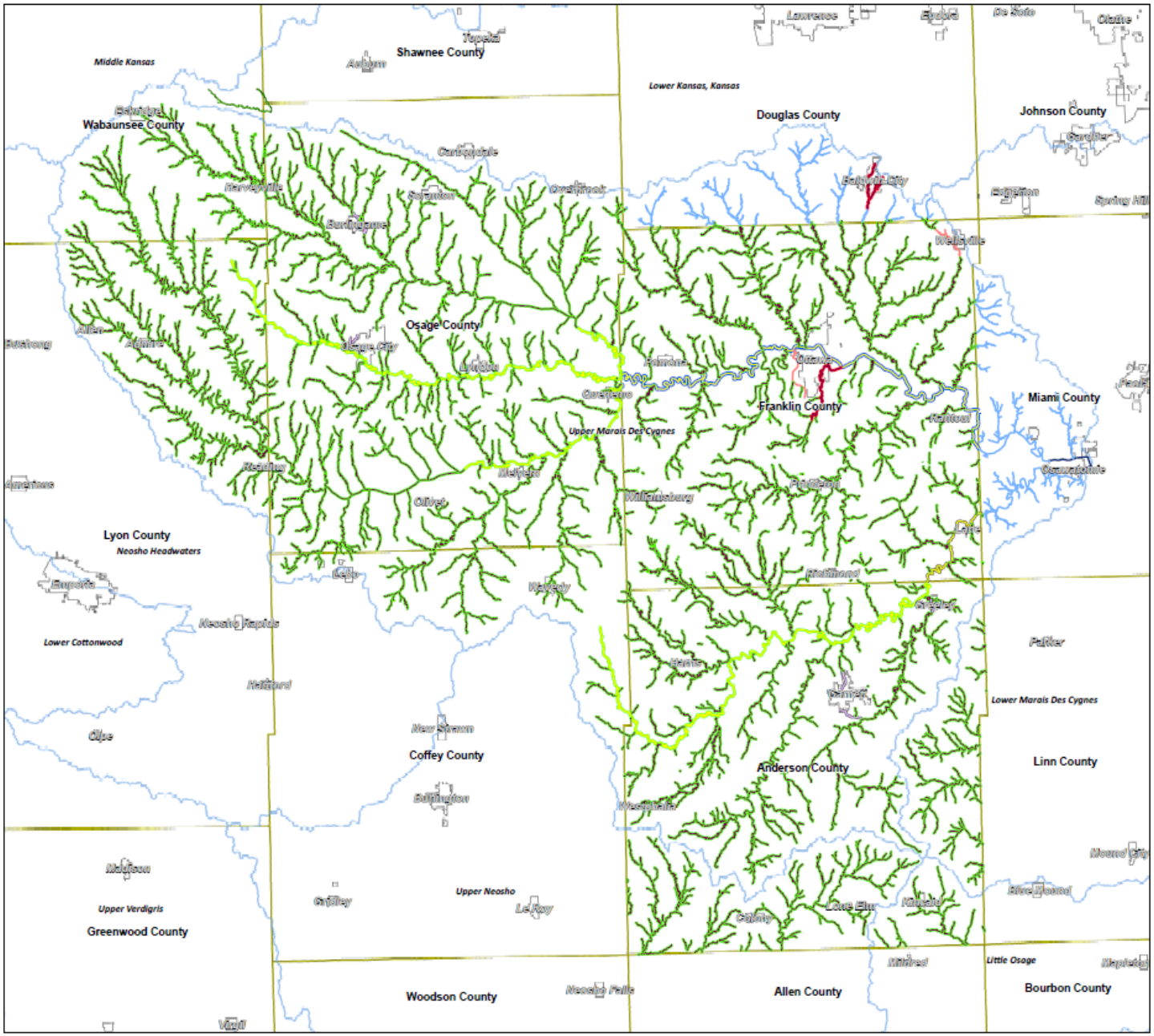
Existing Zone AE studies for these will not be restudied, but the water surface elevations will be re-mapped on newer LiDAR topography, creating updated boudaries for the Special Flood Hazard Area.

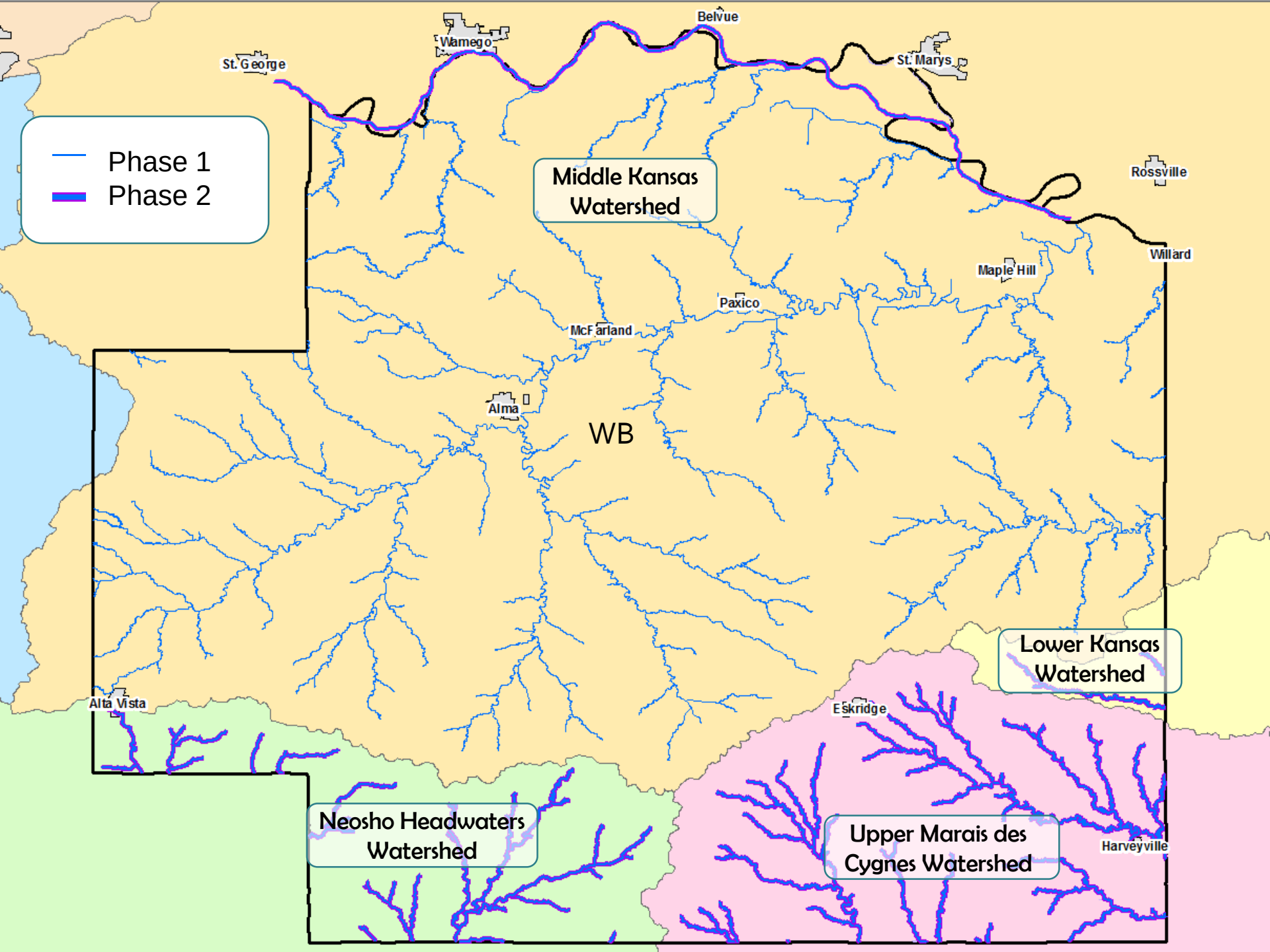
New Zone AE - Limited Detail Study (LDS) Gage Analysis

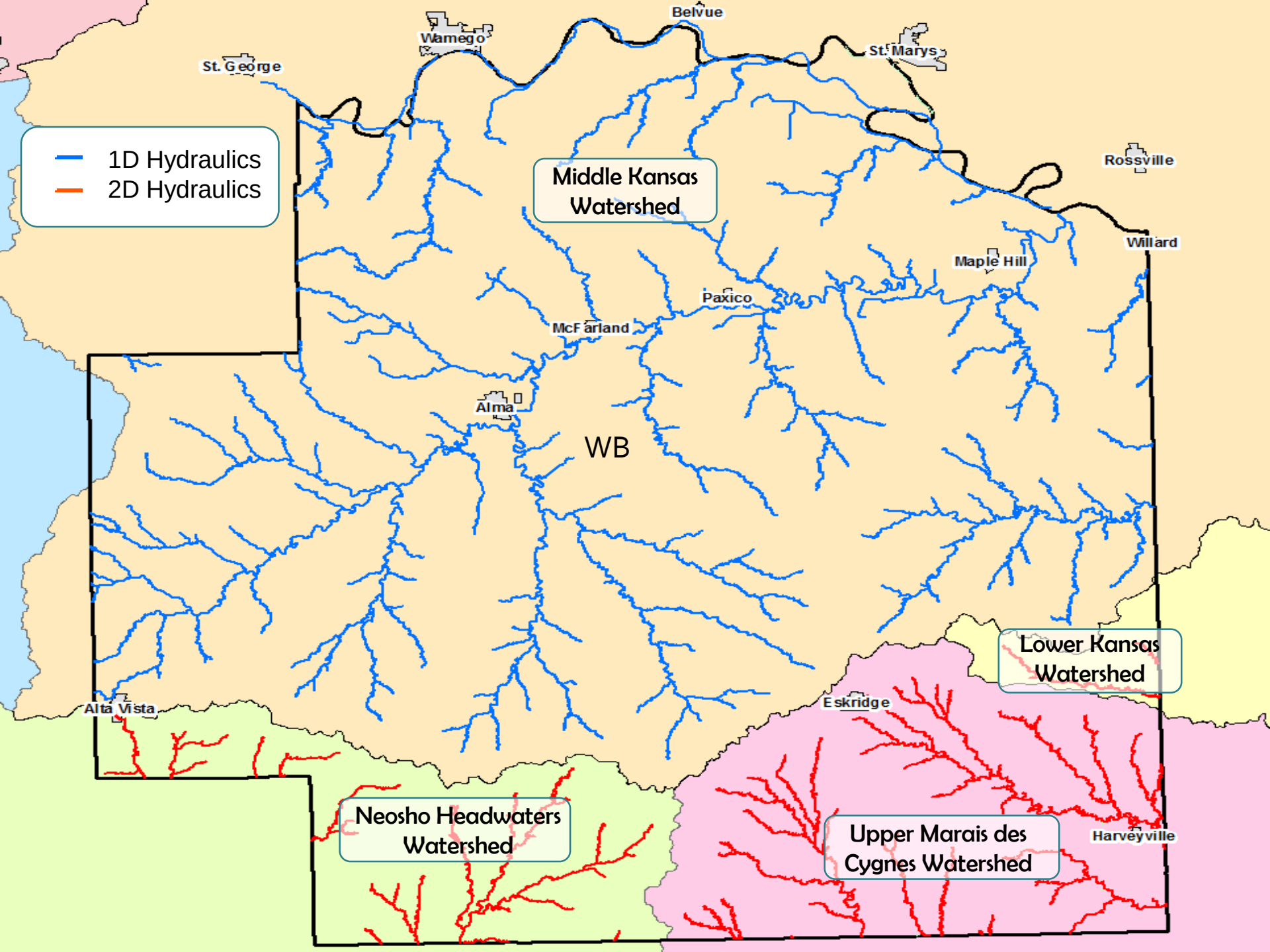
New Zone AE without floodway will be developed for these streams using Gage Analysis calibrated hydrology and field-measured structure data included in the 2D Hec-Ras hydraulics model. No floodway will be shown on the maps, but Base Flood Elevations will be shown.

New Zone AE - Limited Detail Study (LDS) Rainfall Runoff

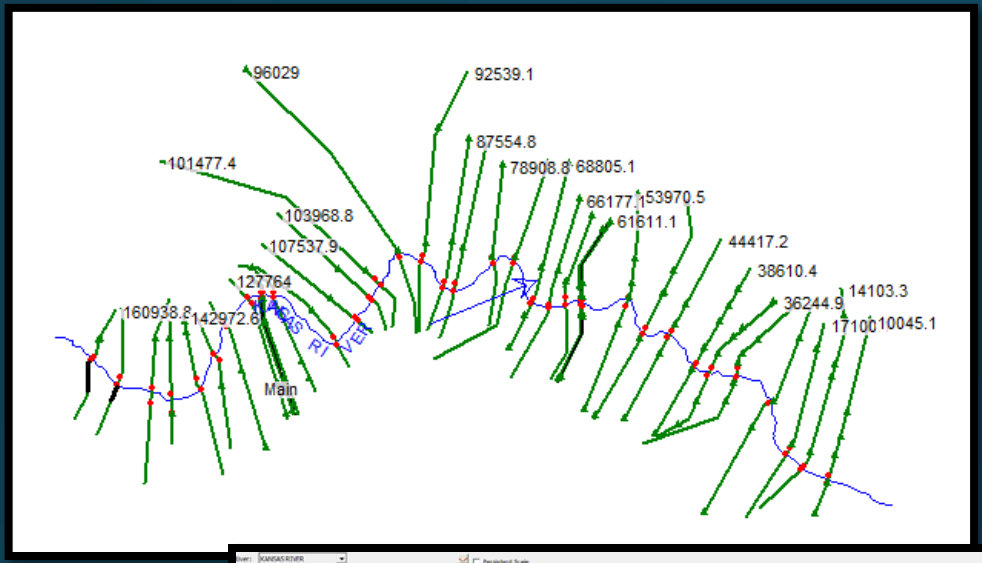
New Zone AE without floodway studies will be developed for these streams using Rainfall Runoff hydrology and field-measured structure data will be included in the 2D Hec-Ras hydraulics model. No floodway will be shown on the maps but Base Flood Elevations will be shown.

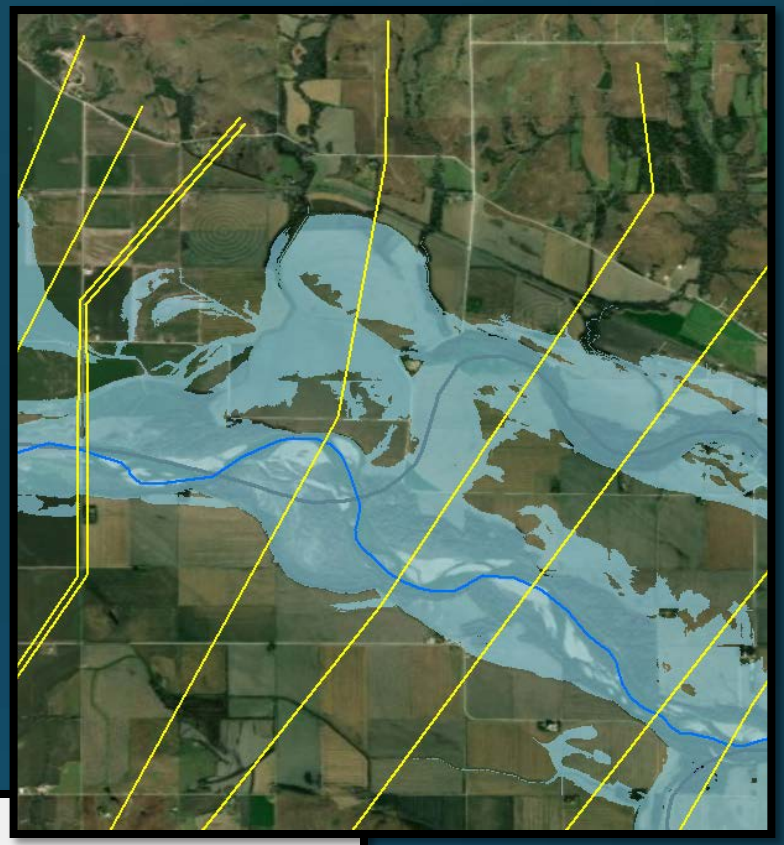

Middle Kansas
Shawnee County
Topeka
Auburn
Wabaunsee County
Lawrence
Eudora
De Soto
Olathe
Lower Kansas, Kansas
Douglas County
Johnson County
Carbondale
Burlingame
Osage City
Osage County
Lyndon
Scranton
Overbrook
Baldwin City
Eudora
Lawrence
Wellsville
Franklin County
Miami County
Upper Marais Des Cygnes
Ottawa
Garnett
Lyon County
Neosho Headwaters
Emporia
Lower Cottonwood
Neosho Rapids
Hartford
Olpe
Coffey County
New Strawn
Burlington
Anderson County
Westphalia
Lower Marais Des Cygnes
Linn County
Pleasant Hill
Greenwood County
Upper Verdigris
Upper Neosho
Le Roy
Woodson County
Neosho Falls
Allen County
Little Osage
Bourbon County
Mound City
Blue Mound
Lake Elu
Kincaid
Colony
Gridley
Yates Center
Iola
Humboldt
Chanute
Erie
Parker
Fulton
Uniontown
Mulberry
Pleasanton
Fort Scott
Bronson
Redfield
Arma
Frontenac
Farlington
Girard
Mildred
Moran
Elsmore
Gas
Bucklin
Ness
Kansas
Spring Hill
Edgerton
Gardner
Paola
Louisburg
Osawatomie
Pleasant Hill
Lone Elm
Colony
Gridley
Le Roy

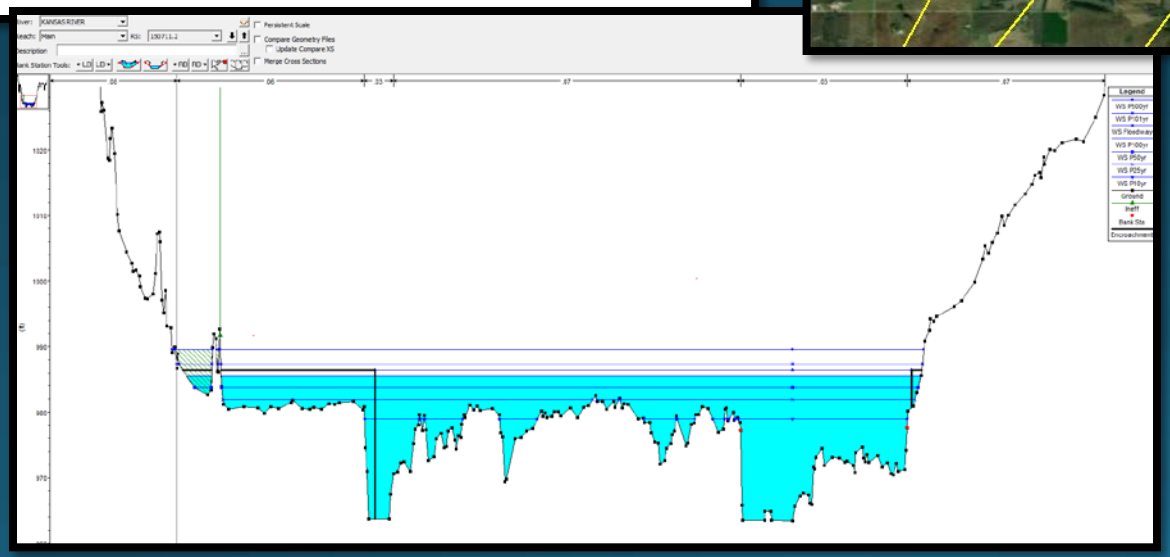

Phase 1
Phase 2
Belvue
Wamego
St. George
St. Marys
Rossville
Willard
Maple Hill
Paxico
McFarland
Alma
WB
Middle Kansas Watershed
Lower Kansas Watershed
Alta Vista
Eskridge
Harveyville
Neosho Headwaters Watershed
Upper Marais des Cygnes Watershed


1D Hydraulics
2D Hydraulics
Belvue
Wamego
St. George
St. Marys
Rossville
Middle Kansas Watershed
Willard
Maple Hill
Paxico
McFarland
Alma
WB
Lower Kansas Watershed
Eskridge
Alta Vista
Neosho Headwaters Watershed
Upper Marais des Cygnes Watershed
Harveyville

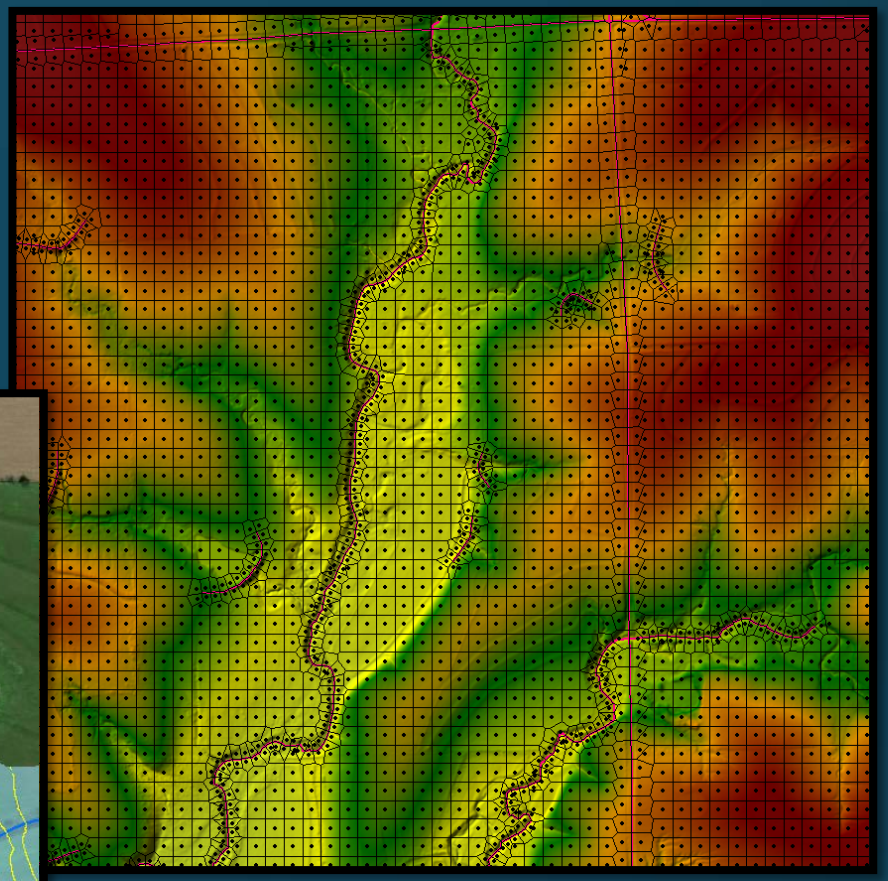
1D Hydraulics

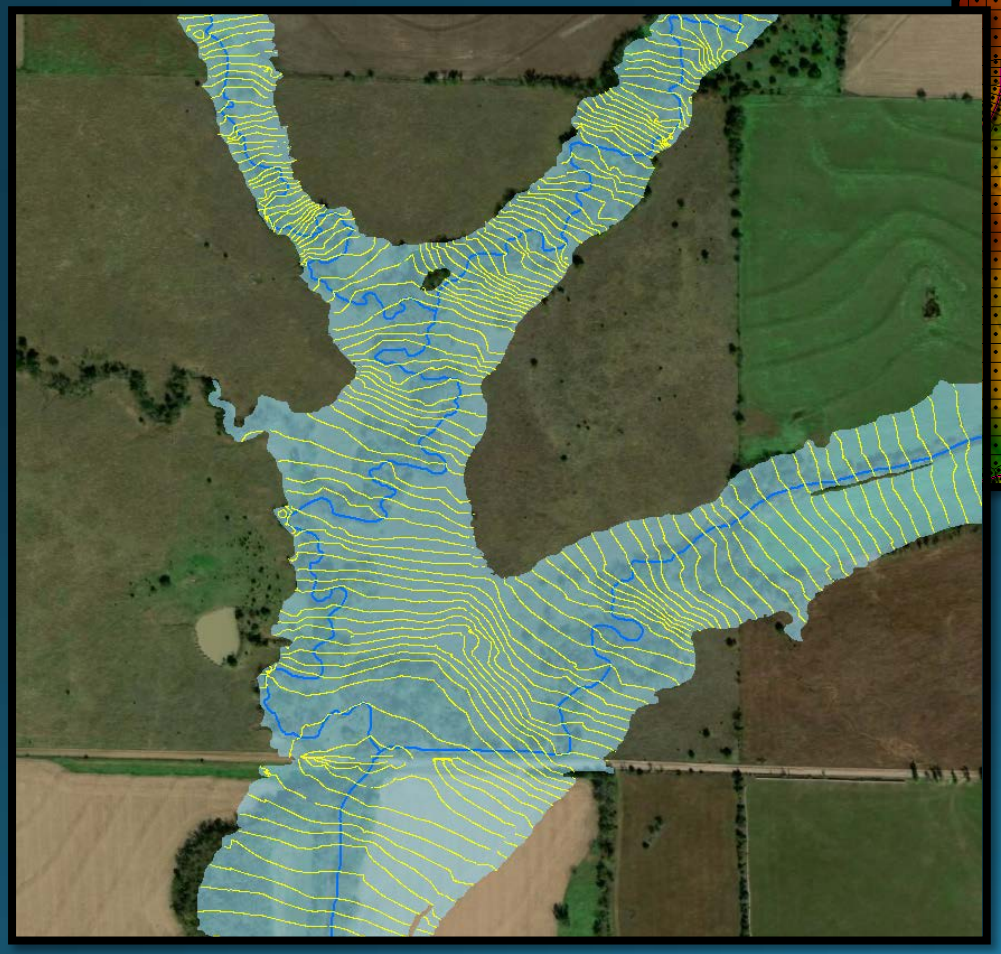






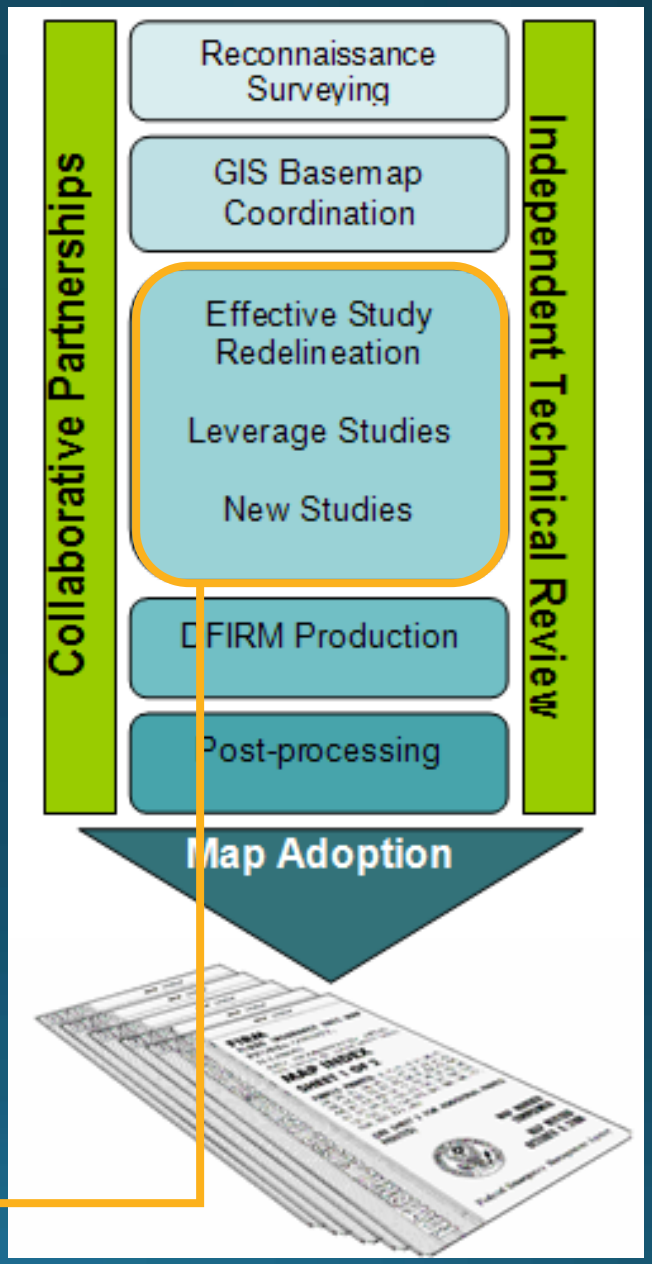
2D Hydraulics





Project Tasks

1. Discovery
2. Base Map Preparation
3. Survey and Topography
4. New Studies
5. DFIRM and FIS Production
6. Post Preliminary



Finishing this phase

Timeline

- Map Production
  - October 2016 to December 2018
- Flood Risk Review Meeting
  - August 9, 2017 (Phase I)
  - **December 11, 2018 (Phase II)**
- Public Open House
  - Estimated: April 2019
- Preliminary Map Distribution
  - Estimated: July 2019
- Preliminary DFIRM Community Coordination Meeting
  - Estimated: August 2019
- Appeal Period
  - Estimated: October-December 2019
- Letter of Final Determination
  - Estimated: April 2020
- Effective Maps
  - Estimated: October 2020

Map Review

- Most important task you have
- Will take place in multiple stages
- A review web map has been provided
- http://gis2.kda.ks.gov/gis/middle_ks/
- Goal is to be in agreement on the map before Preliminary status
- This is where you look out for you

Map Review

- Wood E&IS Review
- Independent Technical Review (ITR)
- KDA Review
- Community Review
- Public Review
- Public Open House

Internal Review

- Wood E&IS Review
  - Engineering reviewed by separate Wood E&IS office
- Independent Technical Review (ITR)
  - 3rd party review of engineering
  - AECOM
- KDA Review
  - Visual review
  - "eye test"
  - Identify impact of the map

Community Review

- Right Now through 1-11-19 (More if needed)
- Conduct as the Working Group / Community sees fit
- This is your chance to have a say in what the end result is. Best opportunity for changes
- Utilize Wabaunsee County Review Web Map to submit comments to KDA
- Comments are public facing (FYI)
- KDA/Wood will address comments prior to starting the Public Review

Public Review (Wabaunsee Co)

- Follows conclusion of Community Review
- Will include Phases I & II (Wabaunsee County)
- Opportunity for property owners (or anyone) to comment on the draft mapping.
- Need Community / Working Group assistance making public aware. (we will provide an example letter)
- Will utilize same Review Web Map
- Will run for at least 30 days
- Will coincide with a public open house

Public Open House (Wabaunsee Co)

- Coincides with Public Review
- One Open House for Phases I & II (Wabaunsee Co)
- Will need the working groups to help find a location and notify the public
- Open house will consist of laptop stations where property owners can discuss the draft mapping and discuss with KDA or engineers.
- Will take additional public comments at the Open House.

Preliminary Maps (Wabaunsee Co)

Mapping of Phases I & II for Wabaunsee County will go Preliminary at the same time.

Why Floodplain Maps?

- Determine where flood insurance is needed and rate its cost.
  - Flood Insurance Rate Map (FIRM)
- To provide the basis for executing community floodplain management ordinances.
- Understand flood risk so communities can make informed planning decisions and work toward mitigation efforts.

Review the floodplains

Discussion

Q & A

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