



FEMA

Sedgwick County, KS Flood Risk Review Meeting

Hybrid Meeting

August 12, 2024

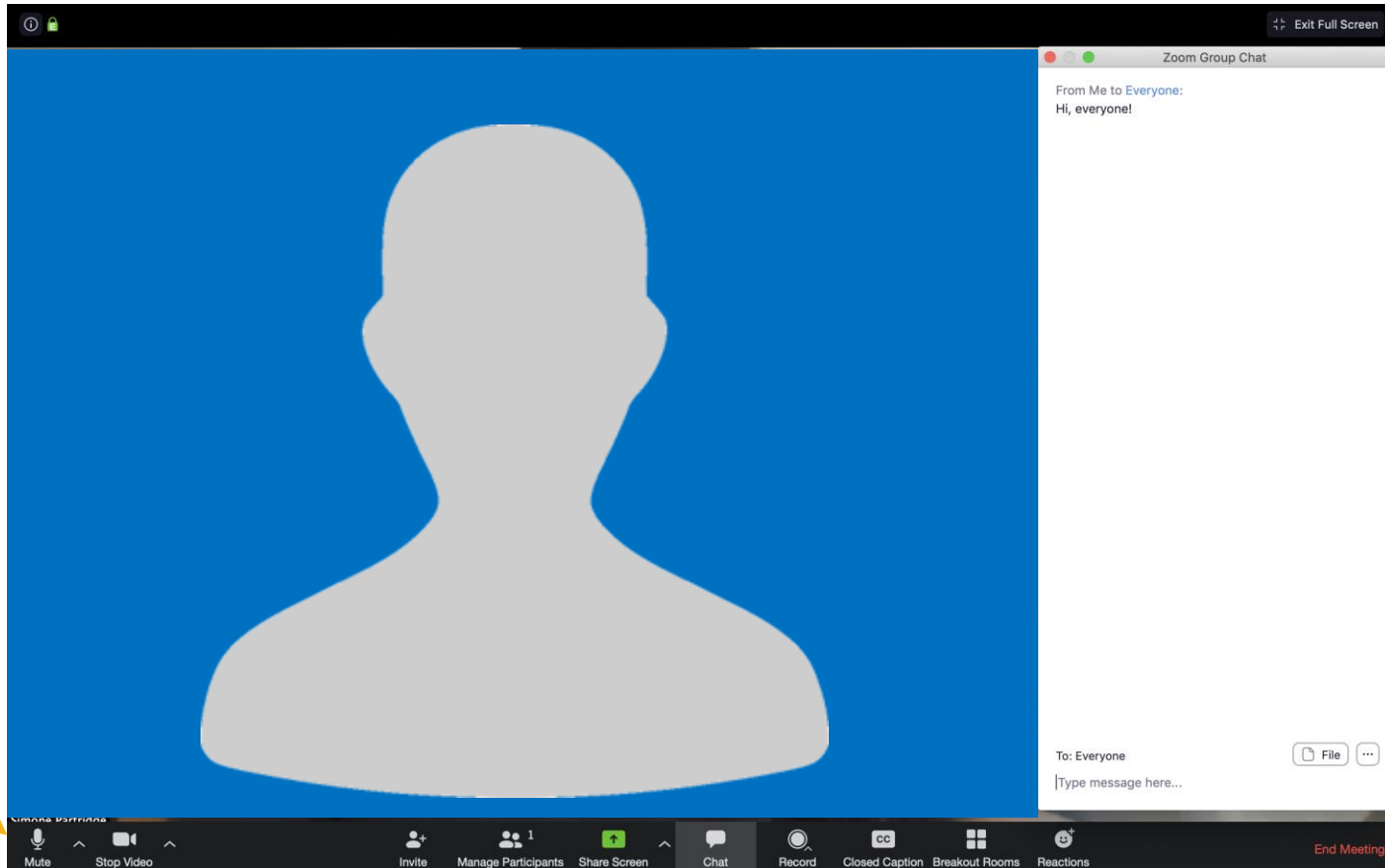
While we are waiting, please enter your name and community in the chat box!

THANK YOU!

*We appreciate the time you are giving to this work
and we want to use it wisely.*

*Your feedback at this point in the project is **very important.***

Zoom Features



*Mute /
Unmute*

Start your Video

*Use the Chat
Feature*

Reactions



Rules of the Road

- Attendees joining on Zoom will be muted during the presentation to help eliminate background noise.
- Use the chat to ask questions during the presentation! We will pause for questions at various stopping points.
- If you want to share your video, please do!
- For technical difficulties, send a private chat to William Pace; or email William.Pace@ks.gov
- We'll be recording this webinar for those who aren't able to attend today.

Intros



Kansas Department of Agriculture

Joanna Rohlf, CFM, GISP
Floodplain Mapping Coordinator

William Pace, CFM
Floodplain Mapping Specialist

Keegan Schwartz
Floodplain Outreach Specialist

Cheyenne Sun Eagle, CFM
State NFIP Coordinator

Kaitlyn Rowell
NFIP Specialist

FEMA – Region VII

Kari Sorg – Regional Project Officer

Dawn Livingston – Regional Project Officer

WSP USA Environment & Infrastructure Inc.

Larry Sample, PE - Project Manager

Alex Roe, PE – Lead H&H Engineer

Lisa Tuckwin, GISP, CFM – Lead GIS Analyst

Why We Are Here



Today's Goals

- Review how we developed your flood risk data
- Get your feedback on the flood risk data
- Review future steps

Main Takeaway: We want your feedback while your map is still in draft form and there is time to incorporate feedback

First, a brief recap



Over the past 30 years, flooding has been more dangerous in the U.S. than any other weather-related problem. To minimize flood damage, we must first understand where the risk is.

Why Have Floodplain Maps?

- Understand the risk so you can make informed planning decisions and avoid future flood damage in your community.
- Determine where flood insurance is needed and rate its cost.
 - Flood Insurance Rate Map (FIRM)
- Provide the basis for updating community floodplain management ordinances.
 - These ordinances are your tool for reducing your community's vulnerability to flood risk.

FEMA Floodplain Mapping Program

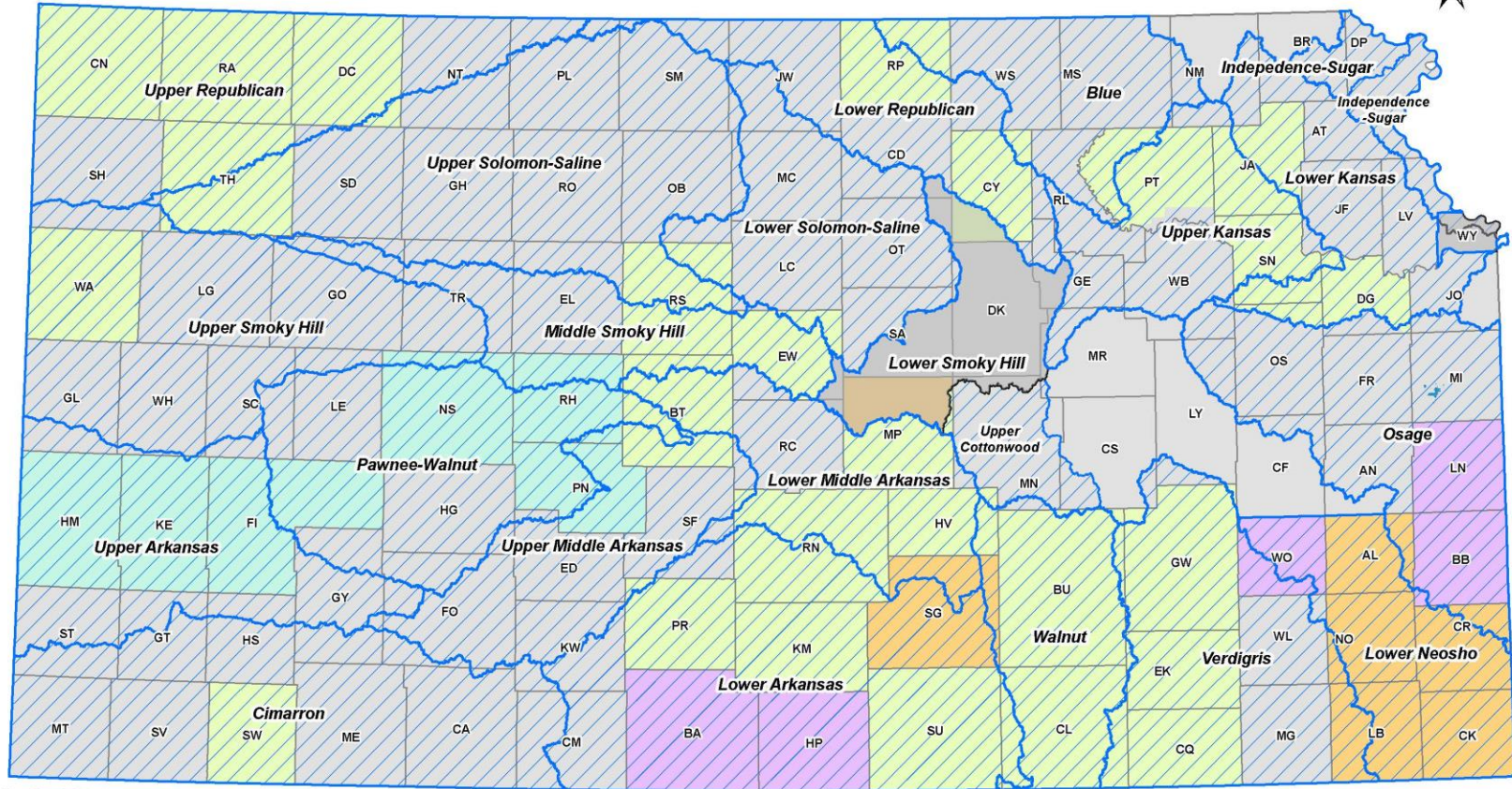


- Risk Mapping Assessment and Planning (Risk MAP)
- Supports the National Flood Insurance Program (NFIP); performed on a watershed basis.
- Consists of both Regulatory and Non-Regulatory Products.
- Through Risk MAP, we provide updated floodplain maps, as well as other (free!) data and tools that can help you plan to reduce your community's risk.

RiskMAP
Increasing Resilience Together

We Do This Work Across Kansas

Current Floodplain Mapping Projects and Custom Watersheds



August 5, 2024

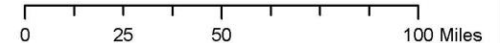
Project Status

- Upcoming Update
- In Development
- Draft
- Preliminary
- LFD

Watershed Projects

- Custom Watersheds (labeled)
- BLE Projects - In Progress
- BLE Projects - Data Available

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



How Did We Get Here?

- Base Level Engineering (BLE) - 2020
 - Gives us early insight into your flood risk
 - Lower Arkansas Custom Watershed BLE Project
 - Kickoff Meeting held March 5-6, 2019
 - Discovery Meeting held February 26-27, 2020
 - Lower Middle Arkansas Custom Watershed BLE Project
 - Kickoff Meeting held September 25, 2020
 - Discovery Meetings held January 12-13, 2021
- Sedgwick County Effective Mapping is dated December 2016

How Did We Get Here?

- Through Discovery and conversations with County stakeholders, it was determined that updated modeling and mapping would benefit Sedgwick County.
- This led to the need for a Physical Map Revision (PMR) project




How Did We Get Here?

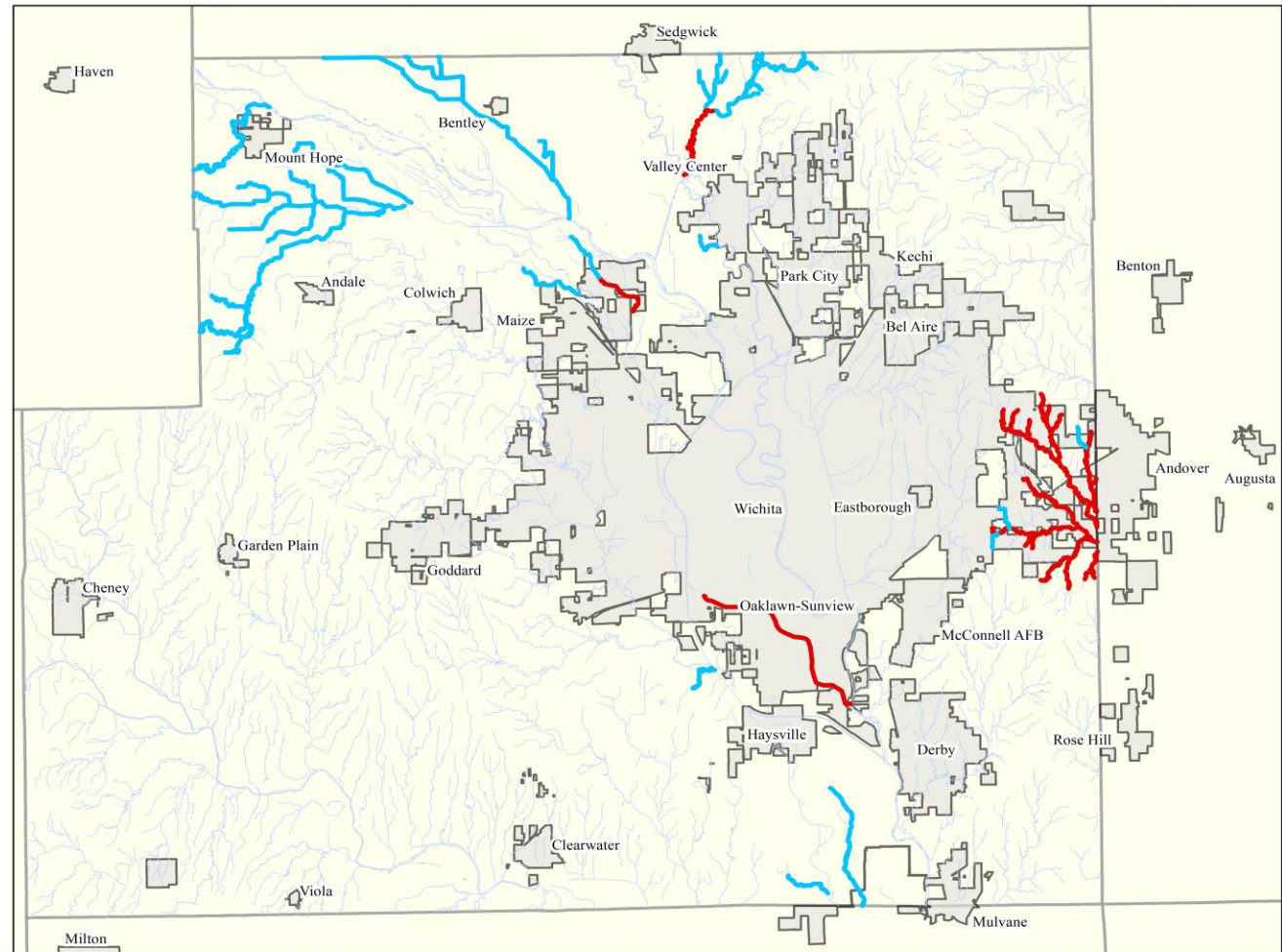
- Data Development – 2021- 2024
 - Kickoff Meeting held on June 29, 2021
 - Discussed Project Scope & Modeling Methods
 - Enhance the engineering analysis
 - Develop regulatory draft floodplain maps
 - Develop Flood Insurance Study
 - Develop flood risk data tools for your community
 - Fourmile Creek Watershed Meeting held on May 3, 2022
 - Decision made to switch from 1D to 2D in Fourmile
- LIDAR Issue caused project delays

Sedgwick County- Mapping Update

Sedgwick County 2021 Proposed Mapping Updates

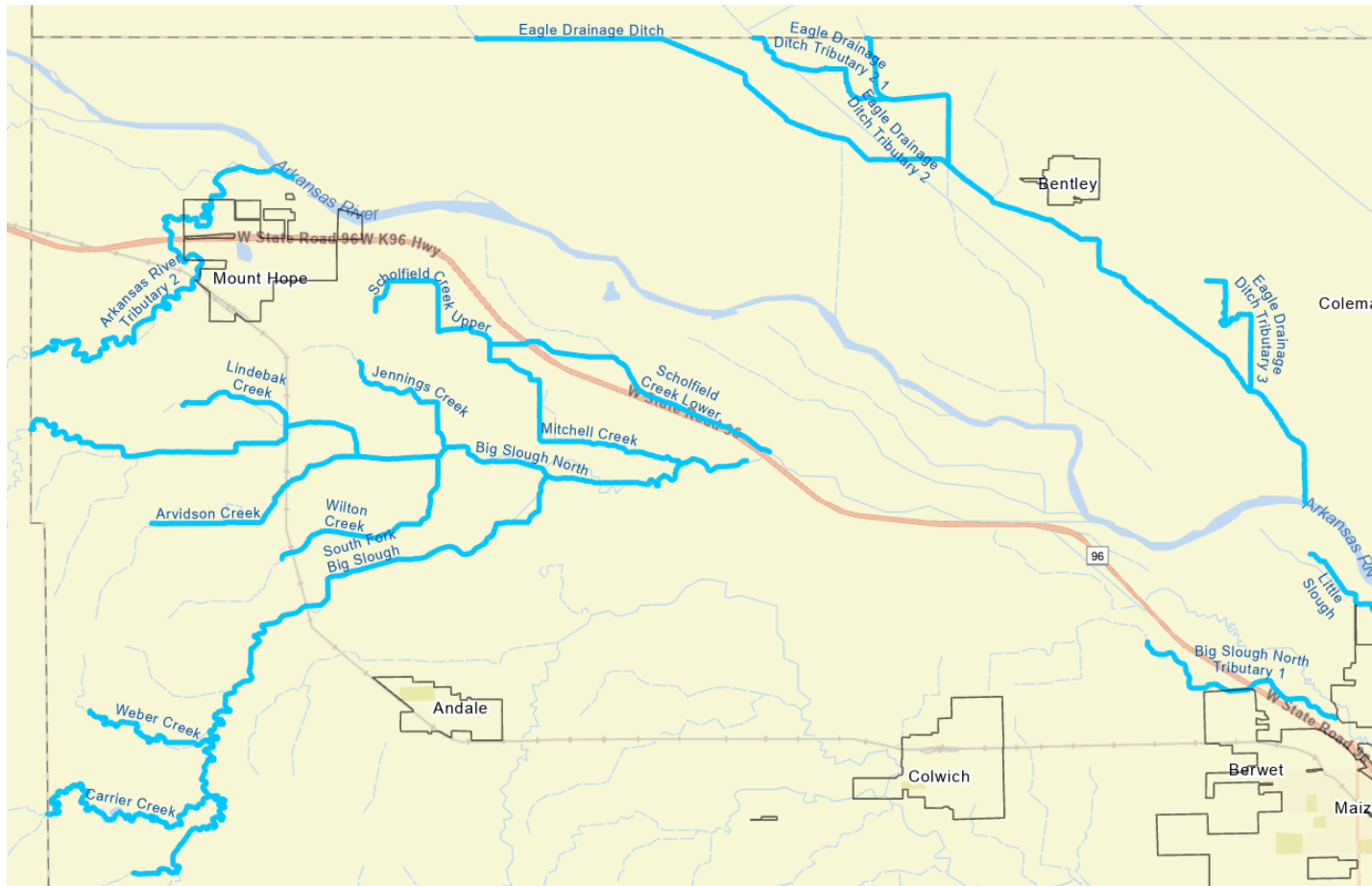
Scoped Studies

-  **New Zone A - Excess Rainfall on Grid**
New Zone A studies will be developed for these streams using 2D "excess rainfall-on grid" hydrology and 2D Hec-Ras hydraulics.
-  **New Zone AE with Floodway - HEC-HMS**
New Zone AE studies will be developed for these streams using 1D or 2D Hec-Ras hydraulics and hydrology calibrated to HEC-HMS model flows. Floodways will be developed. Field measured structure data will be incorporated into the modeling. BFEs will be shown on the maps.
-  **No New Studies will be performed for these streams.**



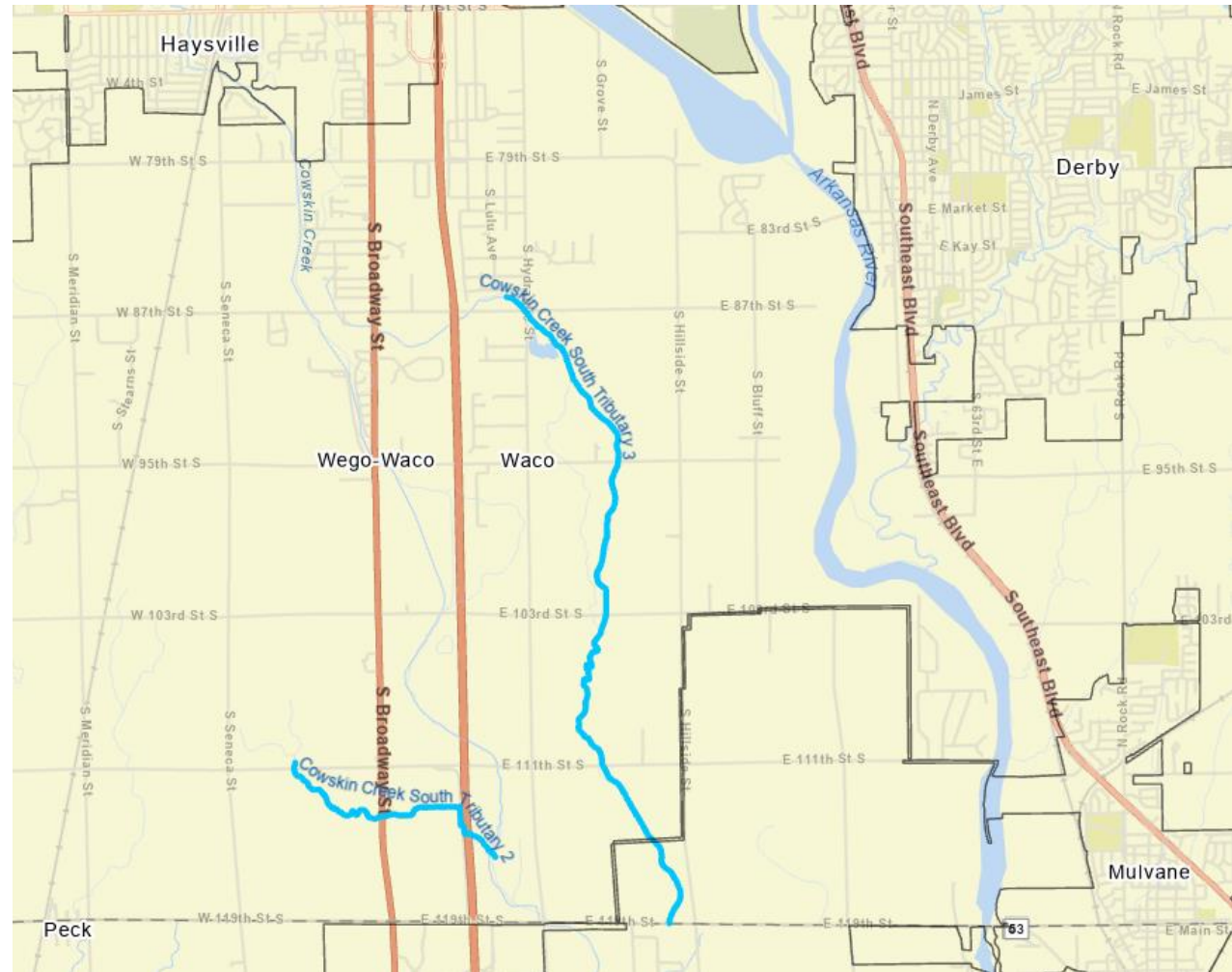
Sedgwick County- Mapping Update

Zone A - two-dimensional (2D) models utilizing excess rainfall on grid hydrology
Near Bentley and Mt. Hope



Sedgwick County- Mapping Update

Zone A - two-dimensional (2D) models utilizing excess rainfall on grid hydrology
Near Haysville



Definitions



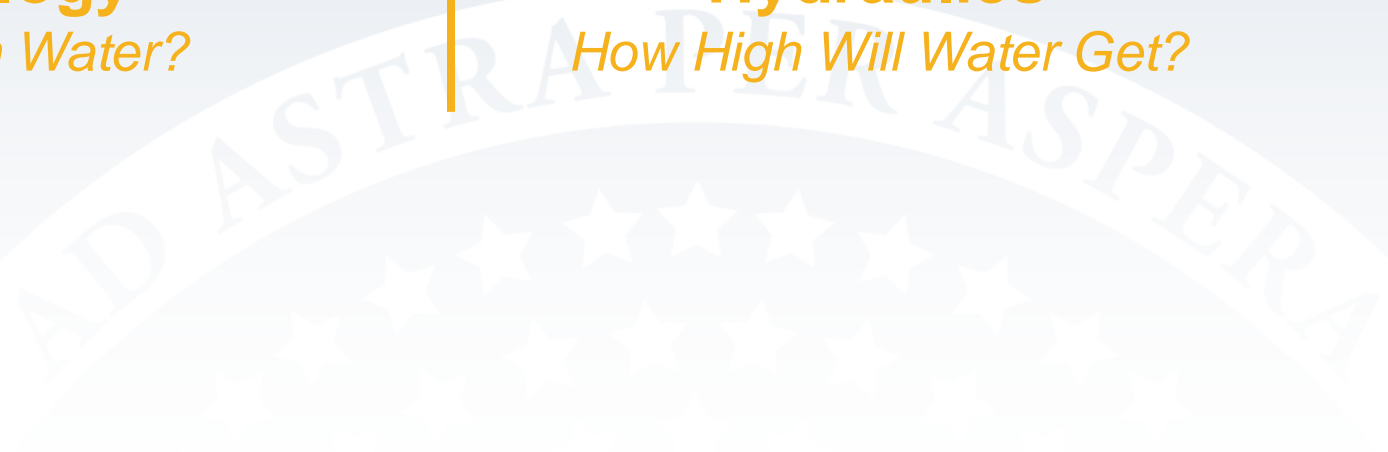
Hydrology

How Much Water?



Hydraulics

How High Will Water Get?



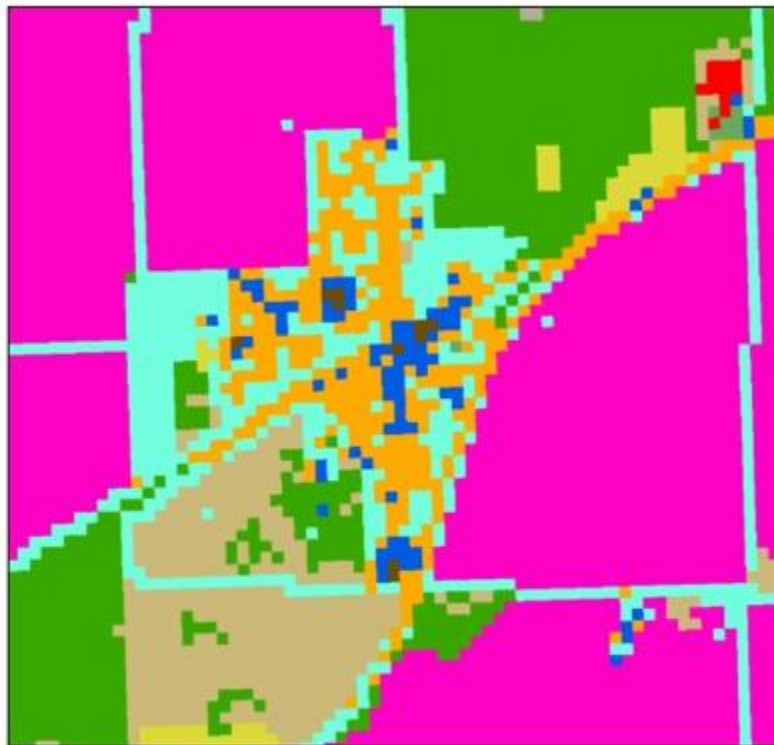


Data Gathered

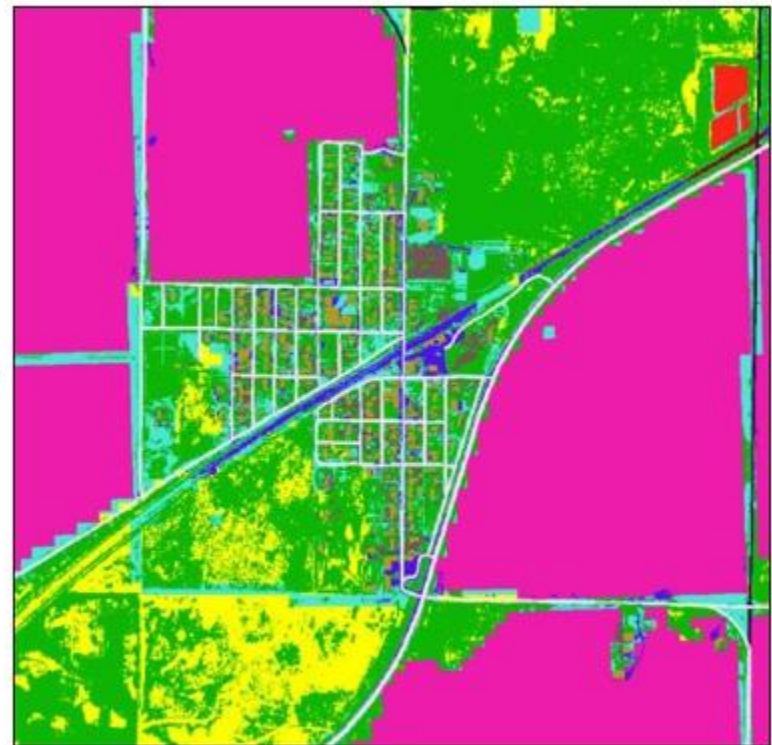
- Information gathered during the BLE Phase of the project was incorporated and/or used for validation of modeling
- Survey and as-built plan information was gathered for bridge and culvert openings for enhanced areas
- Detailed structure modeling incorporated into Refined models, where data was available

Model Enhancements

- Refined Land Use
 - Allowed for greater accuracy in surface modeling due to more detailed land use



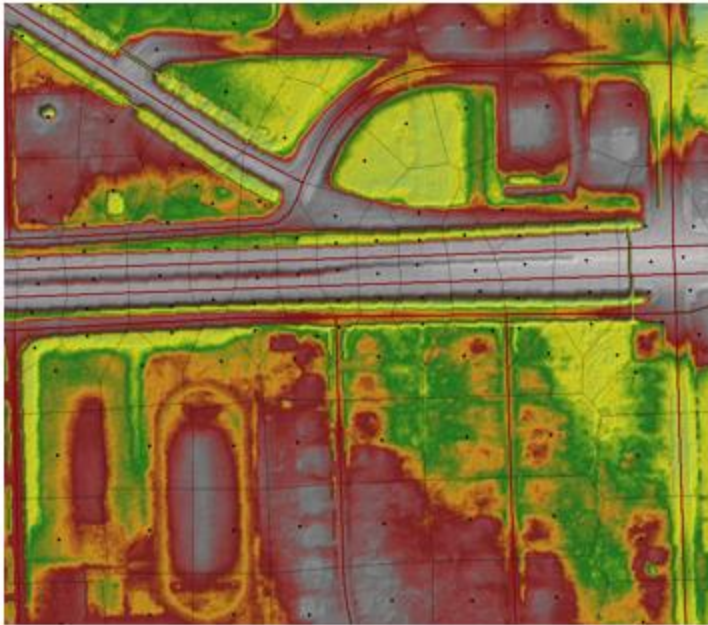
Standard Landuse



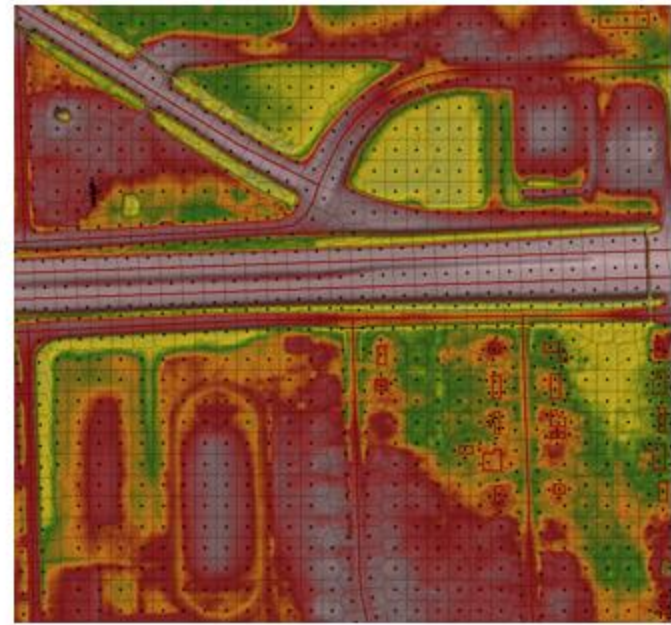
Refined Landuse

Model Enhancements

- Refined Mesh
 - Allowed for greater accuracy in flood modeling due to increased cell density



Coarser Mesh



Refined Mesh



LiDAR Data

- Updated digital floodplain maps were developed on the 2018 acquired LiDAR
- Survey results showed issues with LIDAR accuracy on the eastern side of Sedgwick County
- That block was reprocessed in 2022/2023 and used for the models in the affected area



Levees

-There will be no impacts to levee certifications as part of this mapping update.

-Non-accredited levees in PMR are:

-Arkansas River North Bank levees & Sedgwick Ditch Levee (Eagle Drainage District)

-Arkansas River South Bank levee (Big Arkansas Drainage District)

-Cowskin Creek Levee (Mulvane)

-Cowskin Creek South Levee (Haysville)

Example of Zone AE with Floodway



Changes Since Last FIRM

Compares the Draft Floodplains to the Current Effective Floodplains



Proposed to be out of (removed from) the Floodplain






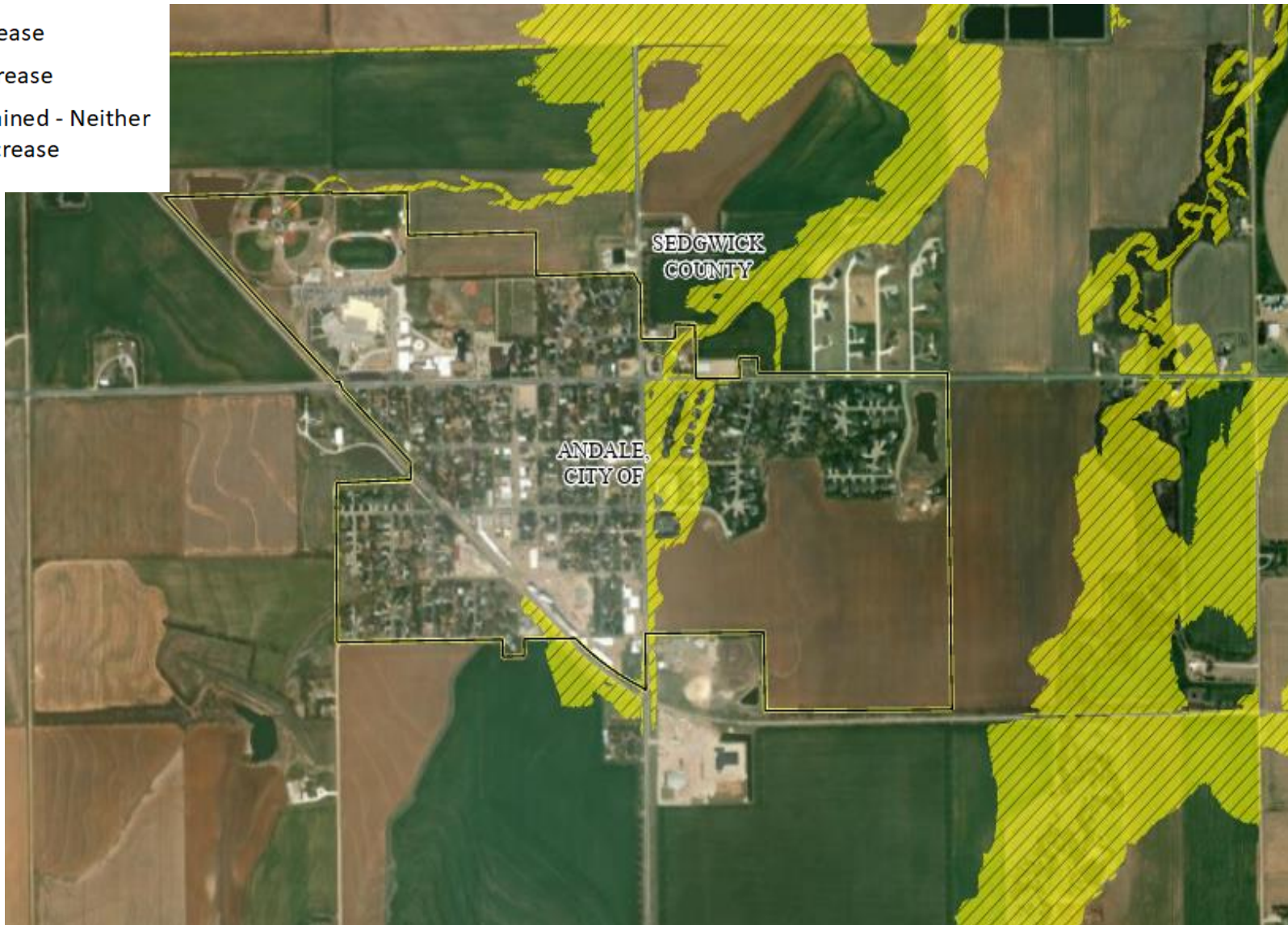
Proposed to remain in the Floodplain






Proposed to be in (added to) the Floodplain

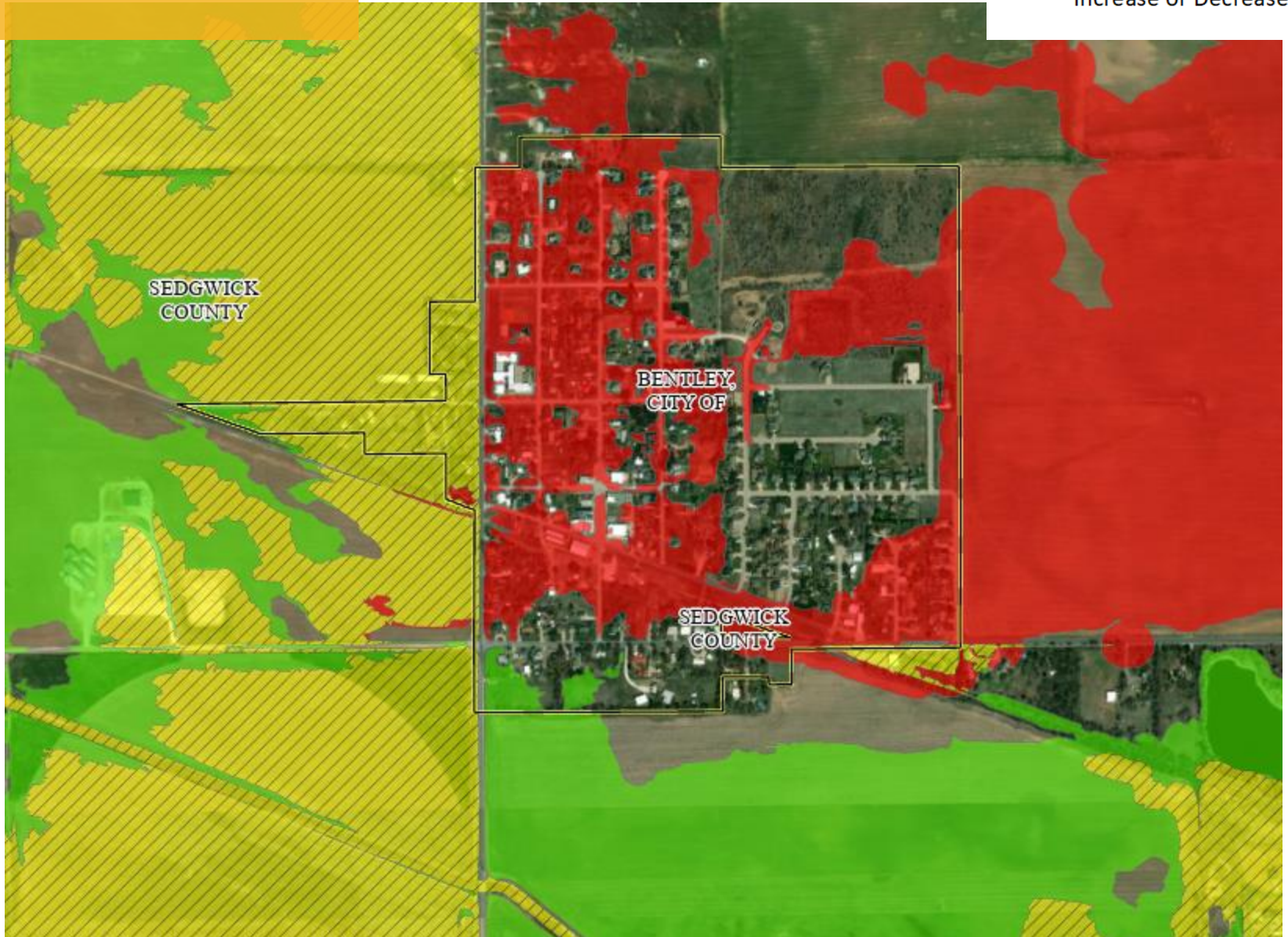
Andale

-  Floodplain Increase
-  Floodplain Decrease
-  Floodplain Retained - Neither Increase or Decrease






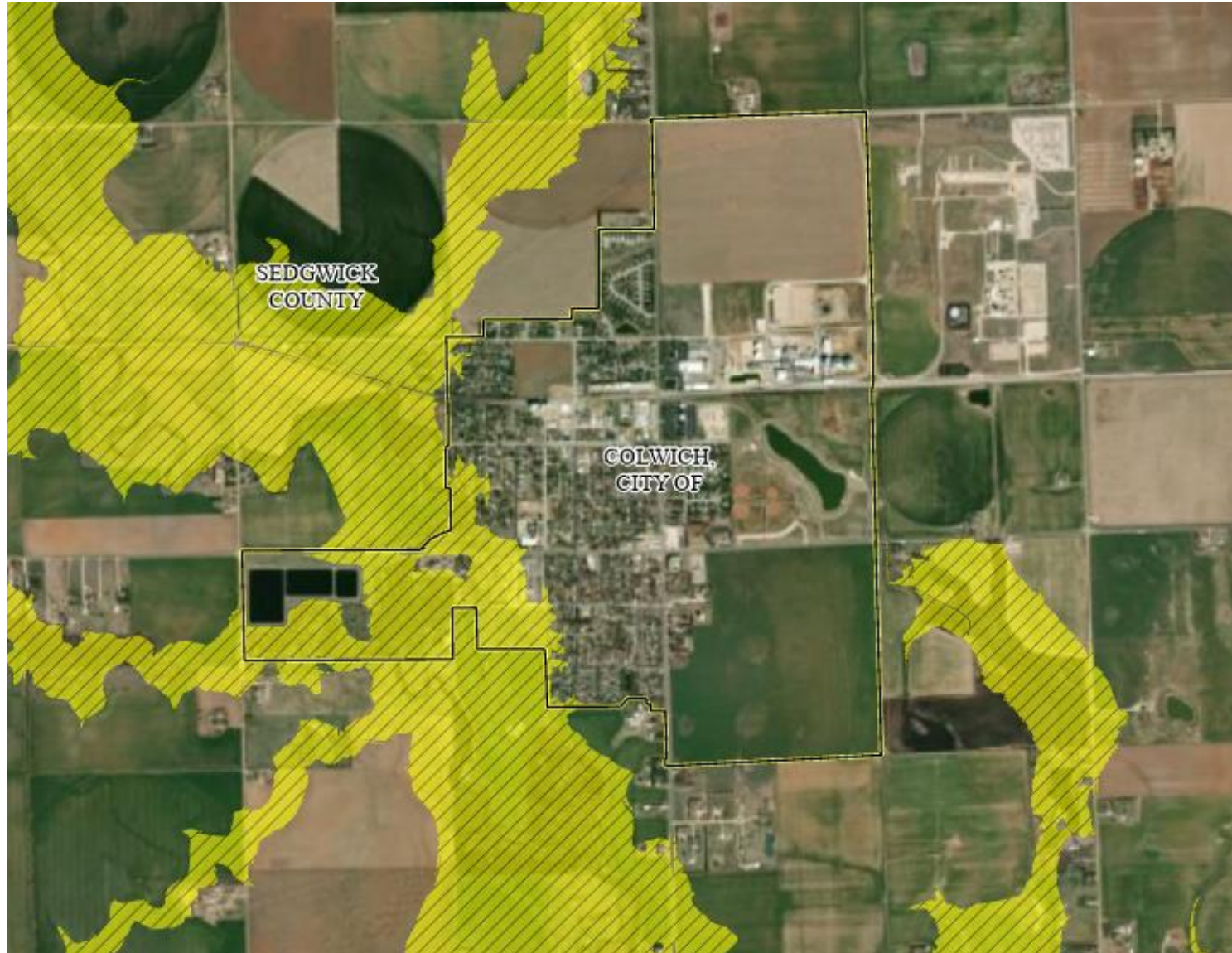
Bentley

-  Floodplain Increase
-  Floodplain Decrease
-  Floodplain Retained - Neither Increase or Decrease






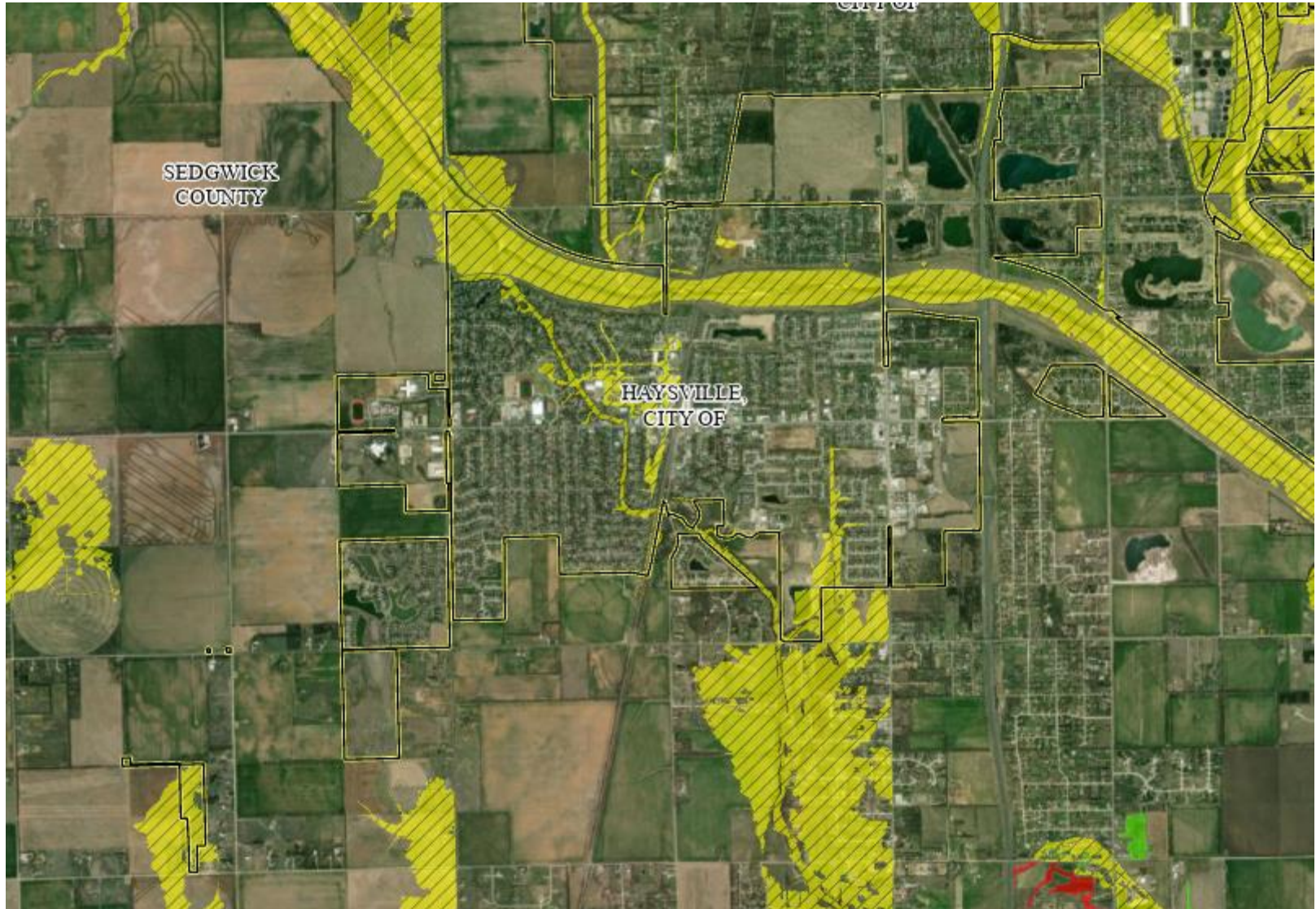
Colwich

-  Floodplain Increase
-  Floodplain Decrease
-  Floodplain Retained - Neither Increase or Decrease



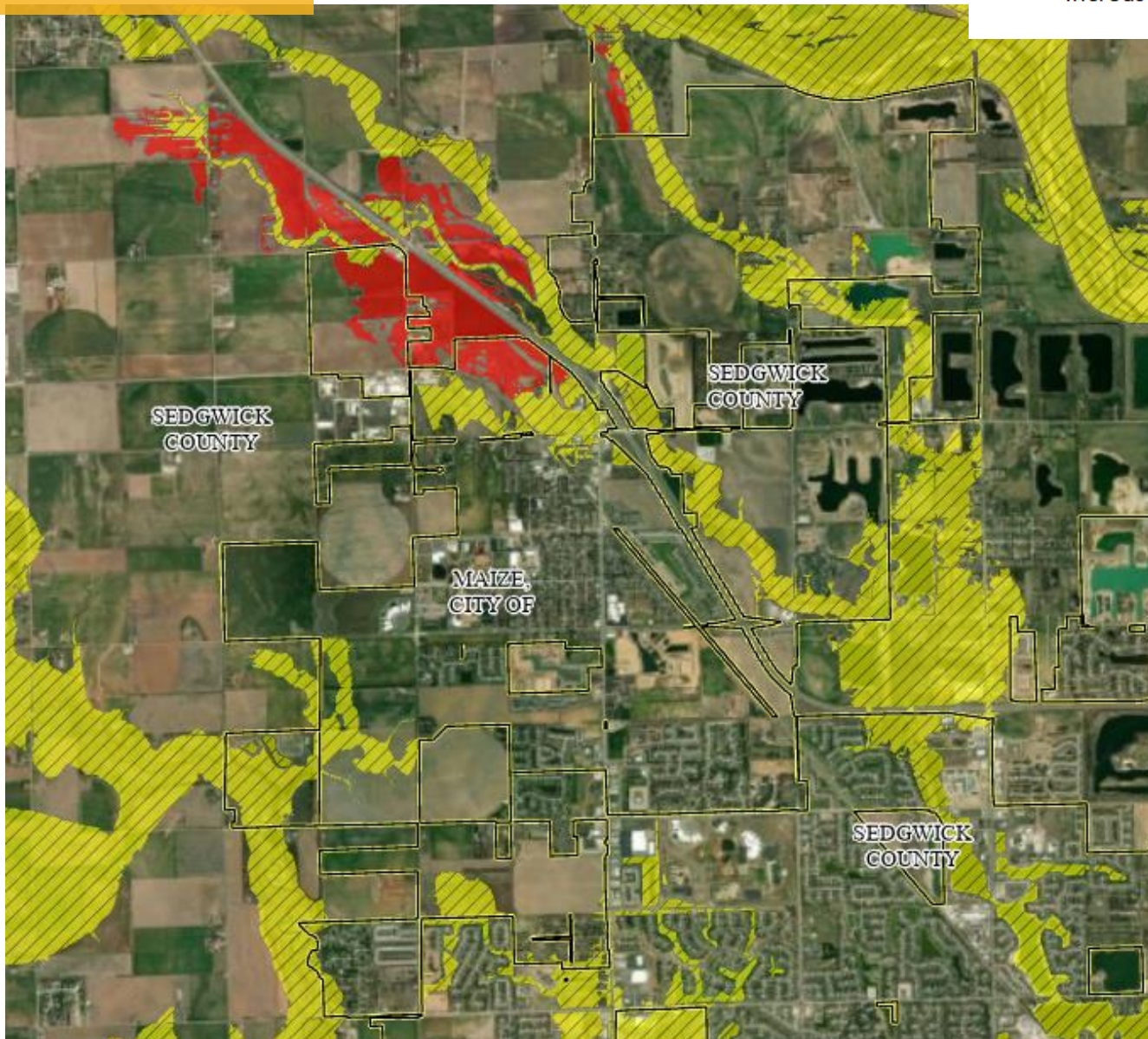
Haysville

-  Floodplain Increase
-  Floodplain Decrease
-  Floodplain Retained - Neither Increase or Decrease



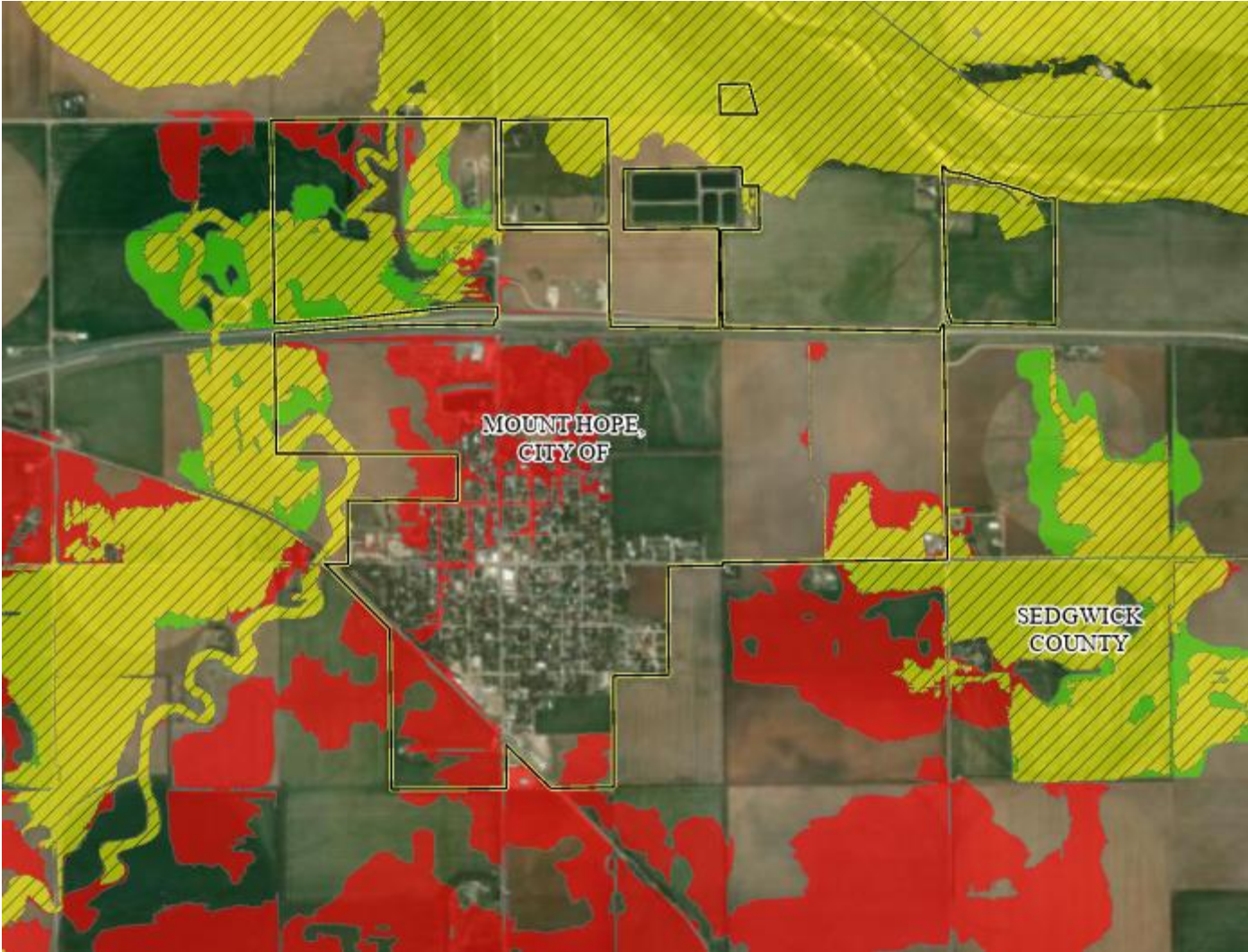
Maize

- Floodplain Increase
- Floodplain Decrease
- Floodplain Retained - Neither Increase or Decrease






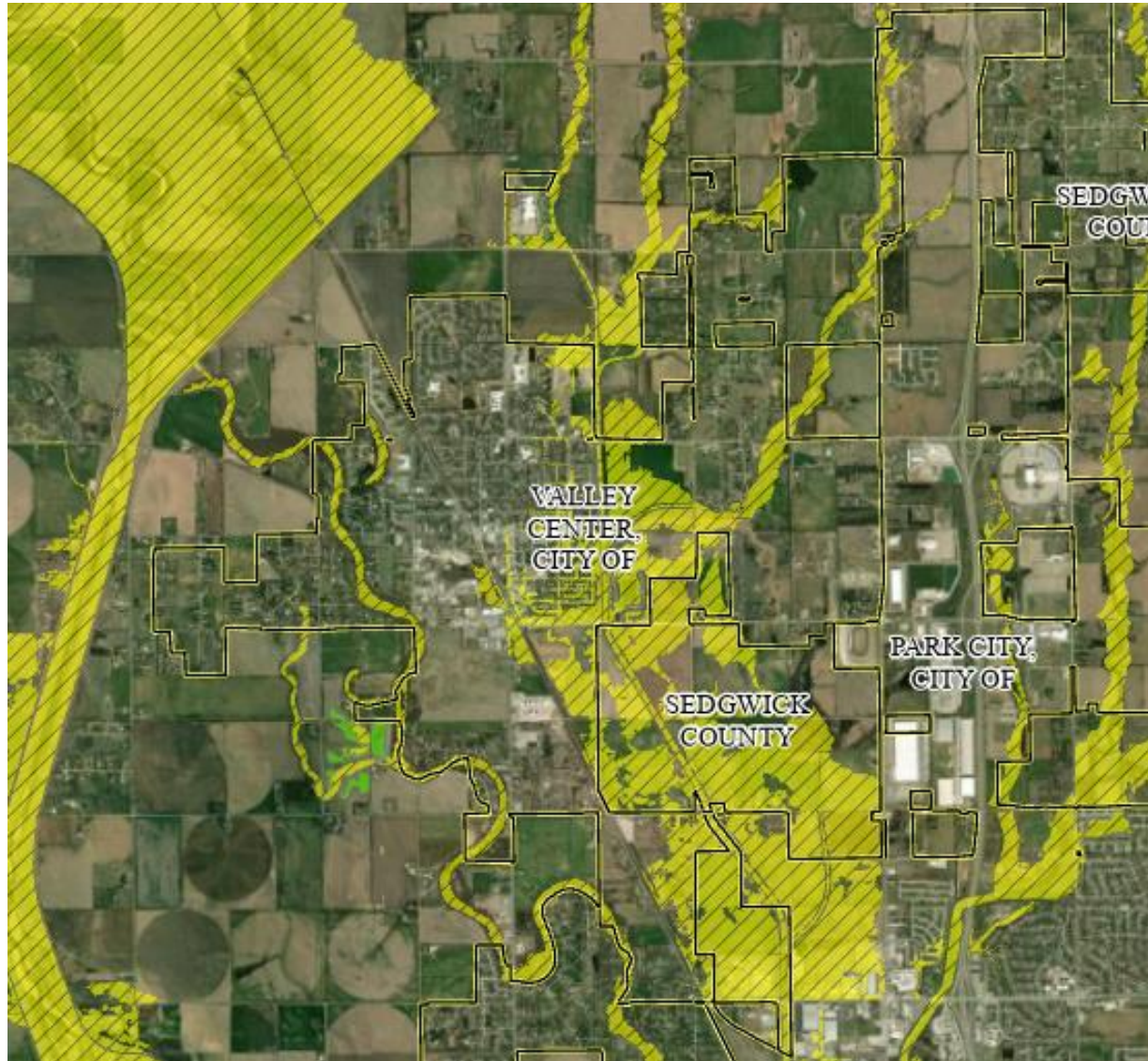
Mount Hope

- Floodplain Increase
- Floodplain Decrease
- Floodplain Retained - Neither Increase or Decrease






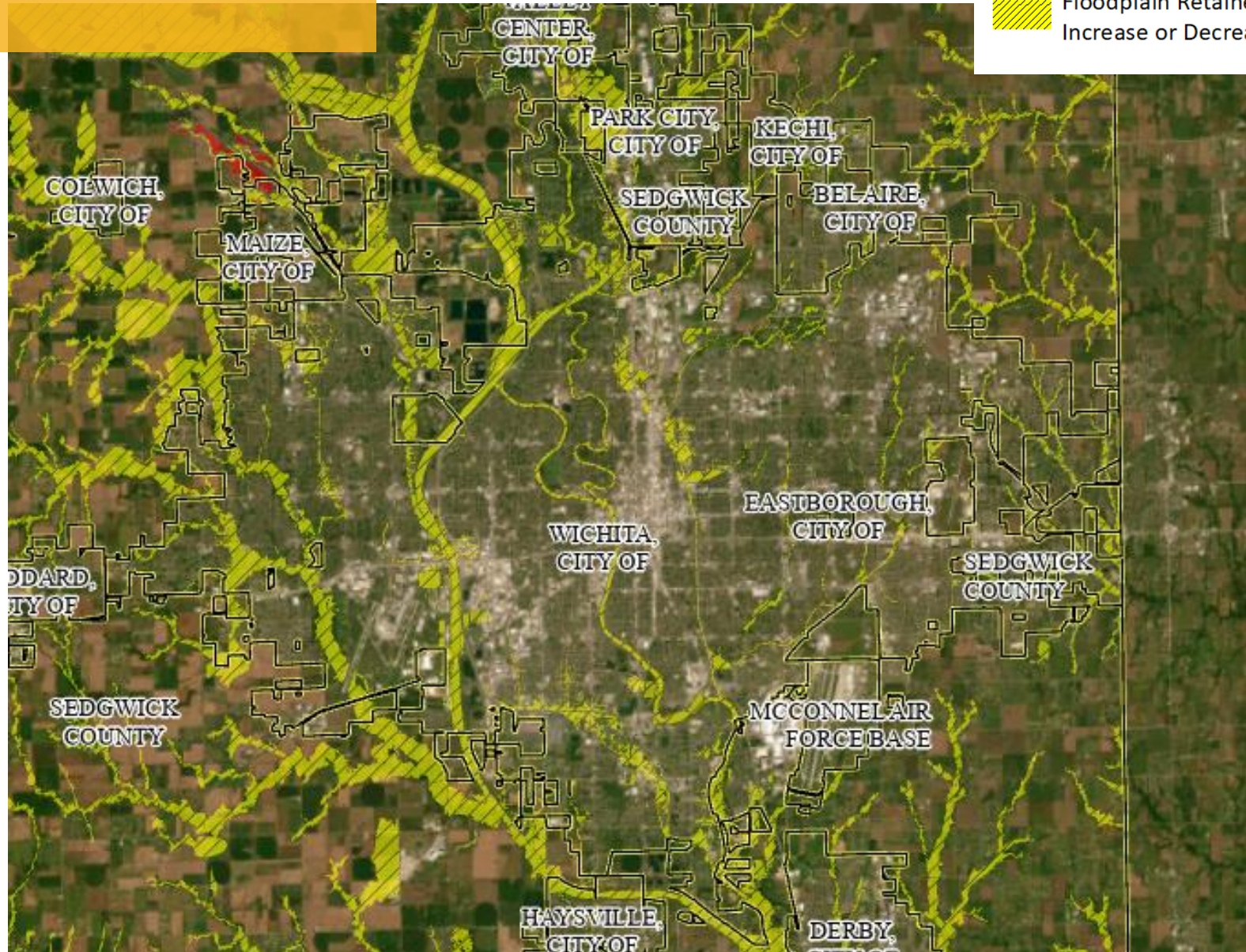
Valley Center

-  Floodplain Increase
-  Floodplain Decrease
-  Floodplain Retained - Neither Increase or Decrease

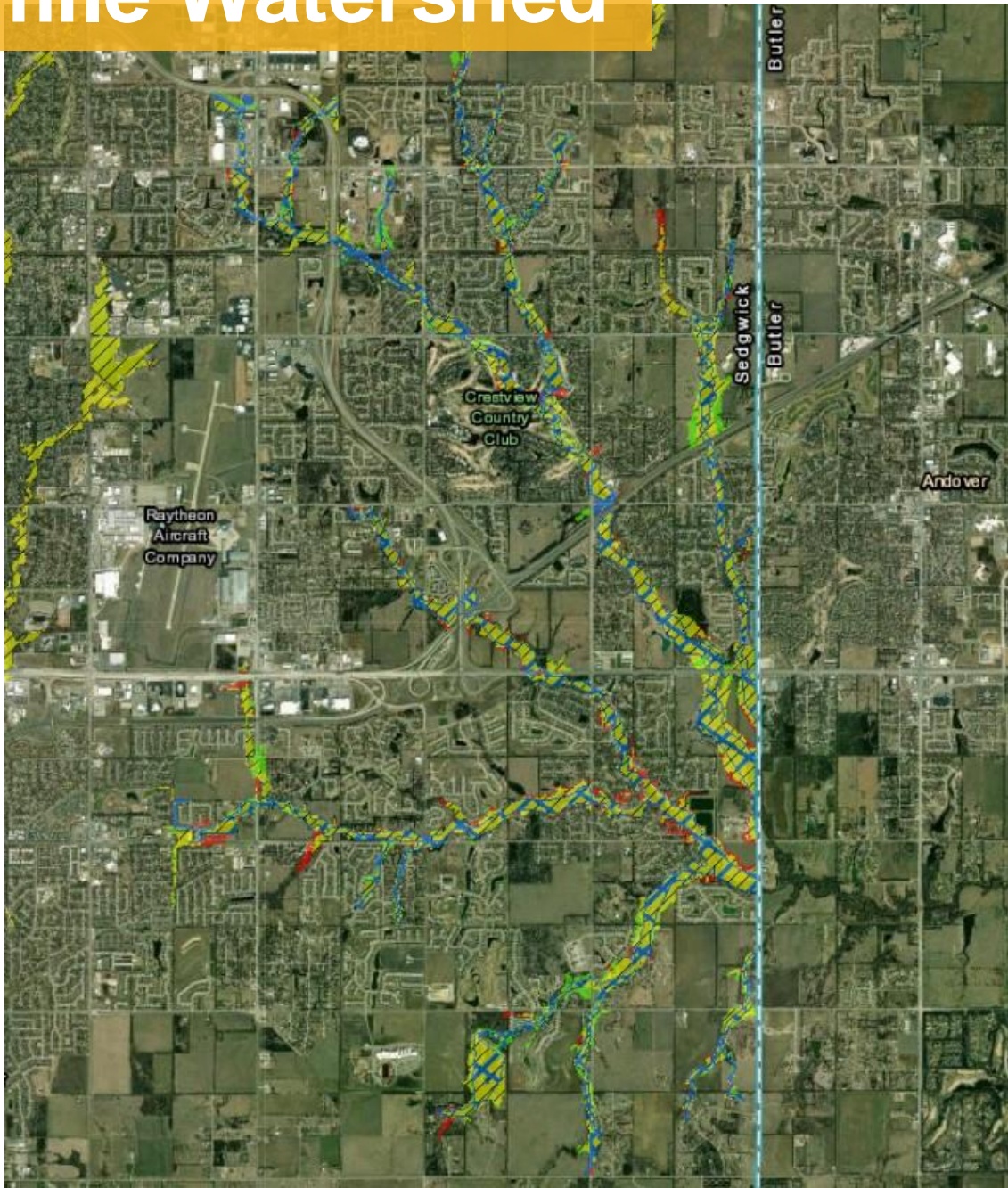


Wichita

-  Floodplain Increase
-  Floodplain Decrease
-  Floodplain Retained - Neither Increase or Decrease






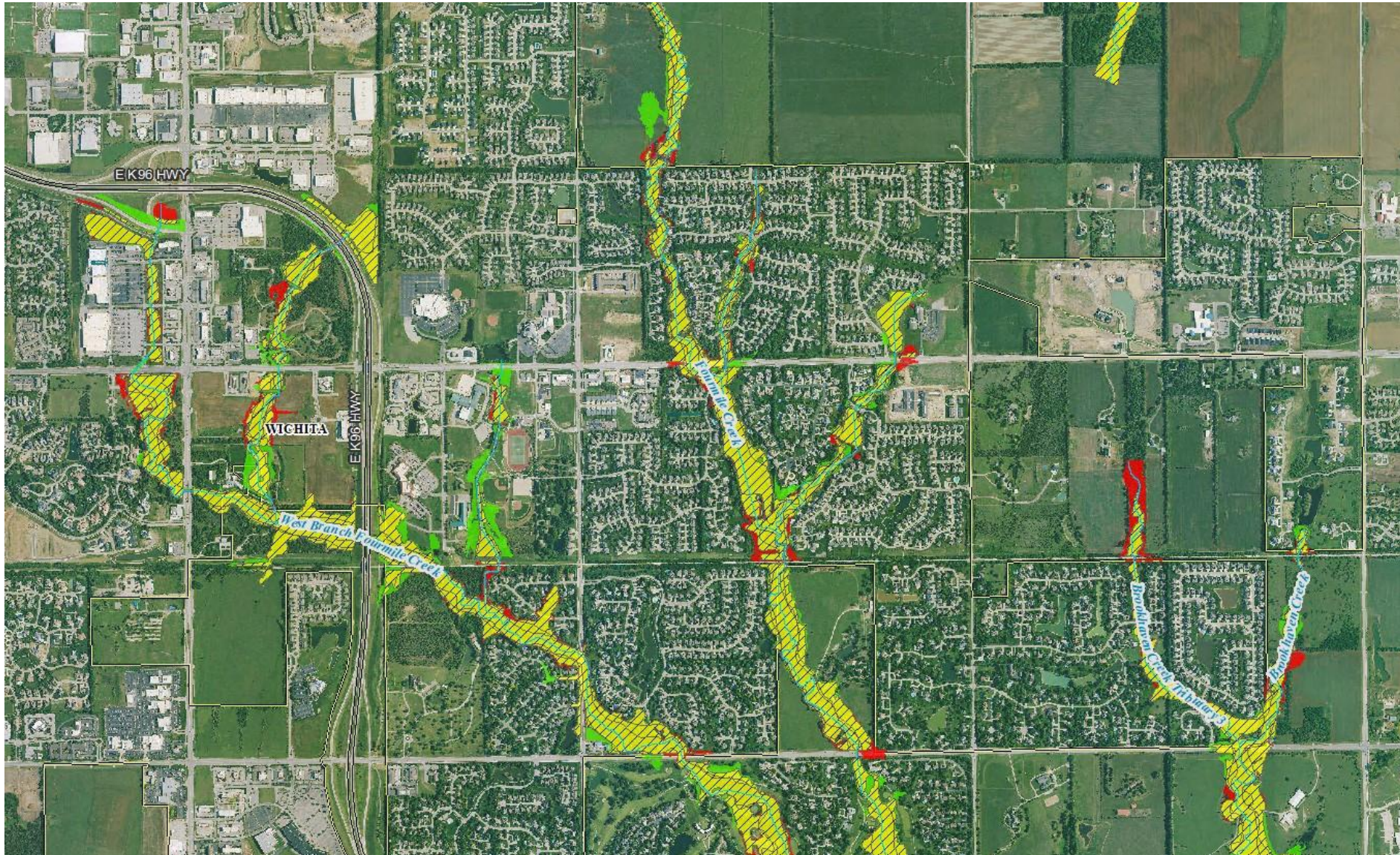
Fourmile Watershed






- Floodplain Increase
- Floodplain Decrease
- ▨ Floodplain Retained - Neither Increase or Decrease

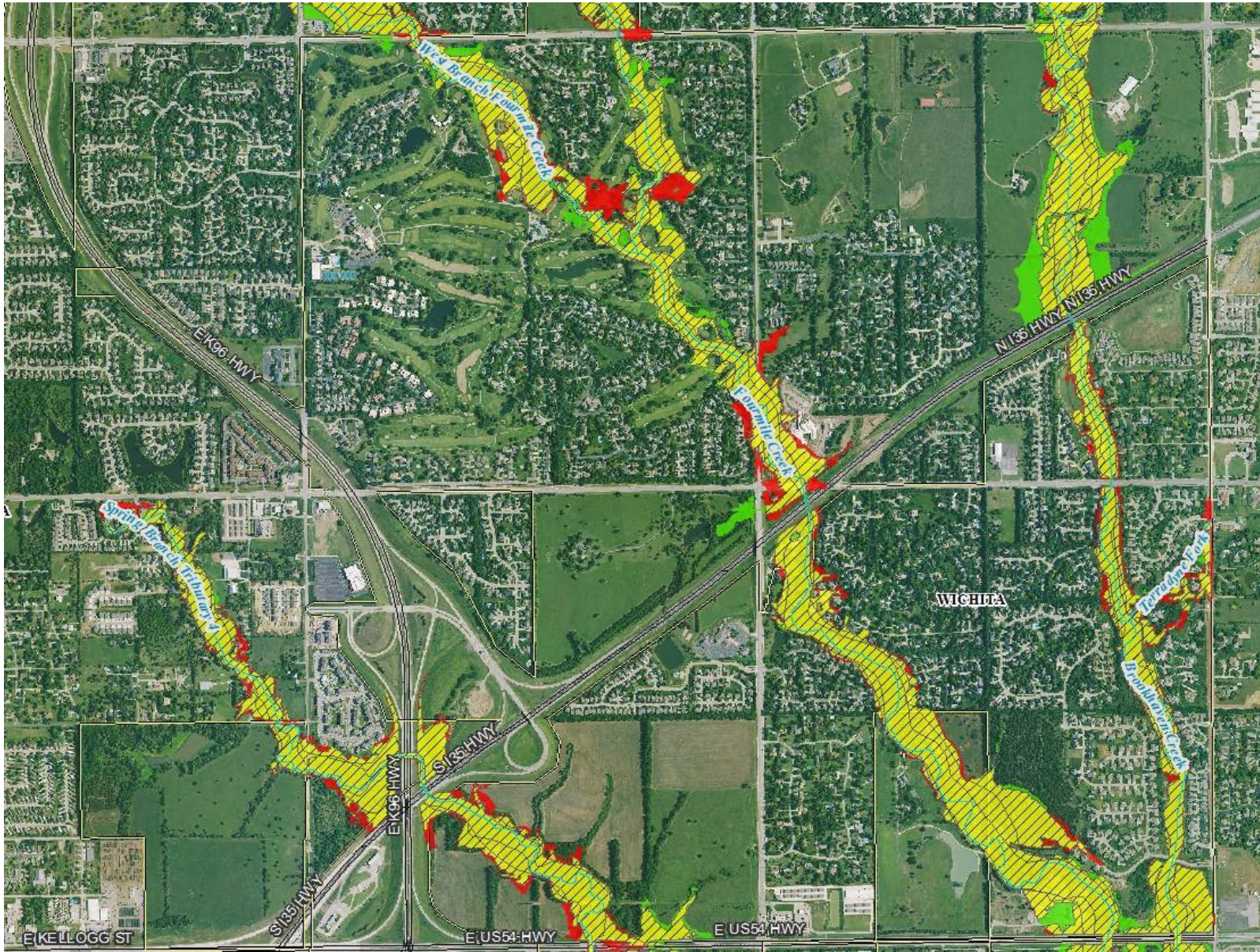
Fourmile Watershed - Continued

-  Floodplain Increase
-  Floodplain Decrease
-  Floodplain Retained - Neither Increase or Decrease



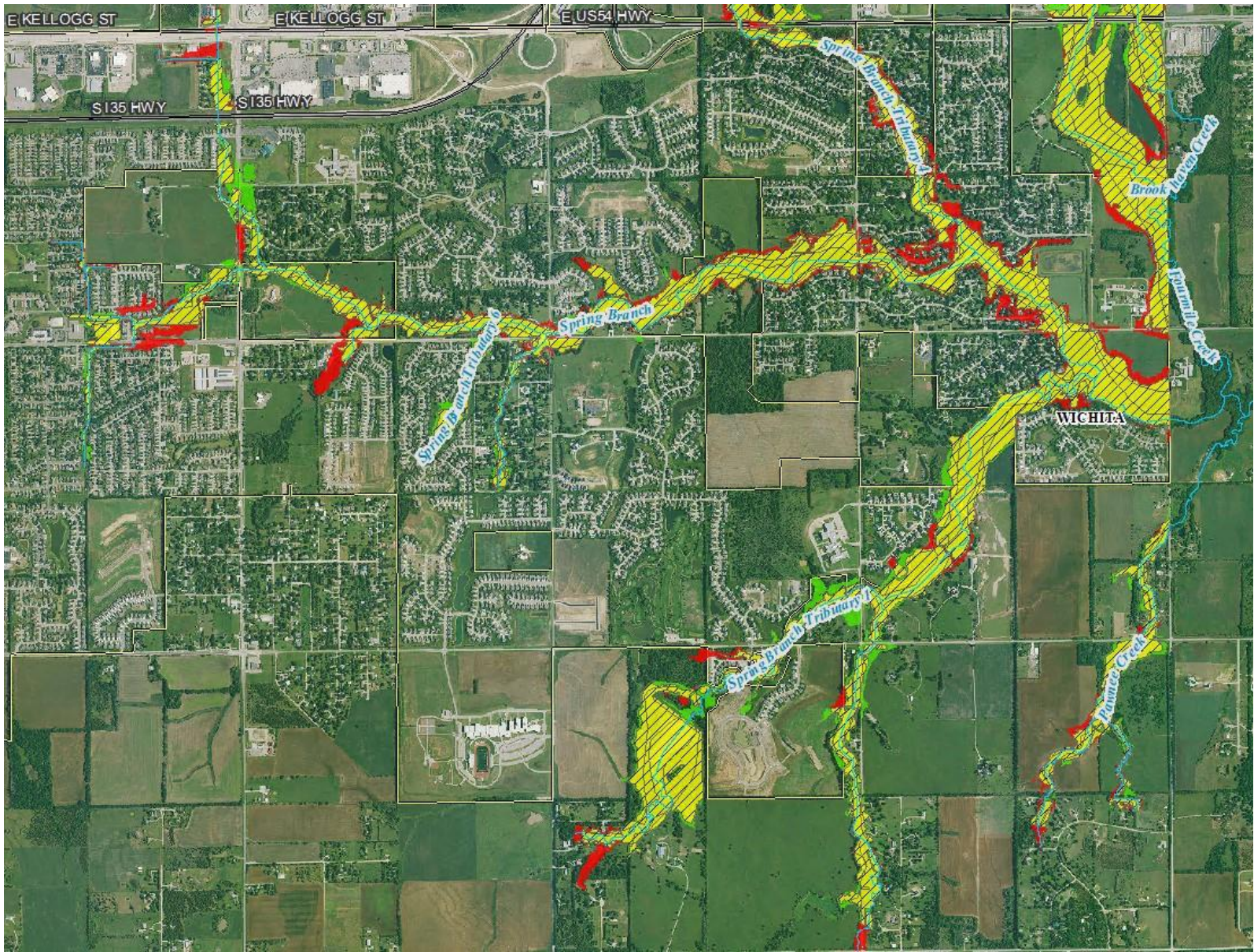
Fourmile Watershed - Continued

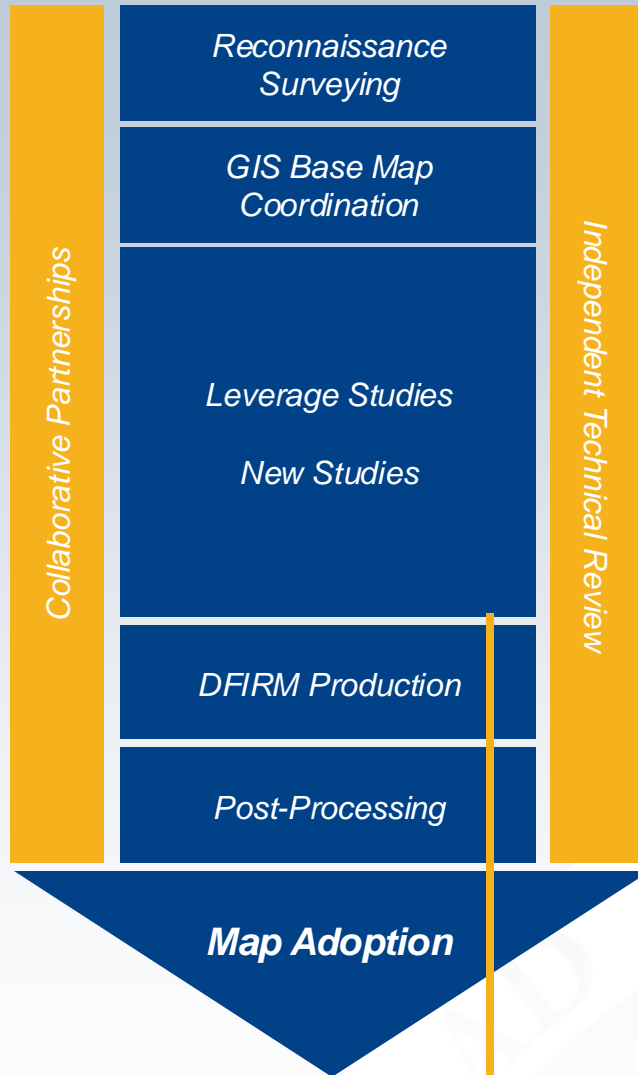
-  Floodplain Increase
-  Floodplain Decrease
-  Floodplain Retained - Neither Increase or Decrease



Fourmile Watershed - Continued

- Floodplain Increase
- Floodplain Decrease
- Floodplain Retained - Neither Increase or Decrease





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: data development

Your Maps Undergo Significant Review



- WSP USA
 - Engineering reviewed by separate WSP USA office
- Independent Technical Review (ITR)
 - Third party review of engineering
 - AECOM
- KDA Review
 - Visual review
 - Eye test
 - Identify impact of the map
- FEMA Review
 - Formal quality review process of regulatory products
- Your Review!
 - Community Review
 - Public Review

Community Map Review



ASPERA

Your Map Review



This is your opportunity to have an impact!

- We want to agree on what your map looks like before Preliminary Status
 - That's when we enter the regulatory map-making phase, and it's harder to change things
- A web map has been provided for review
<https://gis2.kda.ks.gov/gis/sedgwick/>
- This is where **YOU** look out for **YOU: please provide your comments by September 12, 2024**



Sedgwick County PMR Floodplain Mapping Project

Draft floodplain mapping data updated 8/5/2024. View the current effective floodplain data on the [Kansas Effective Floodplain Viewer](#).

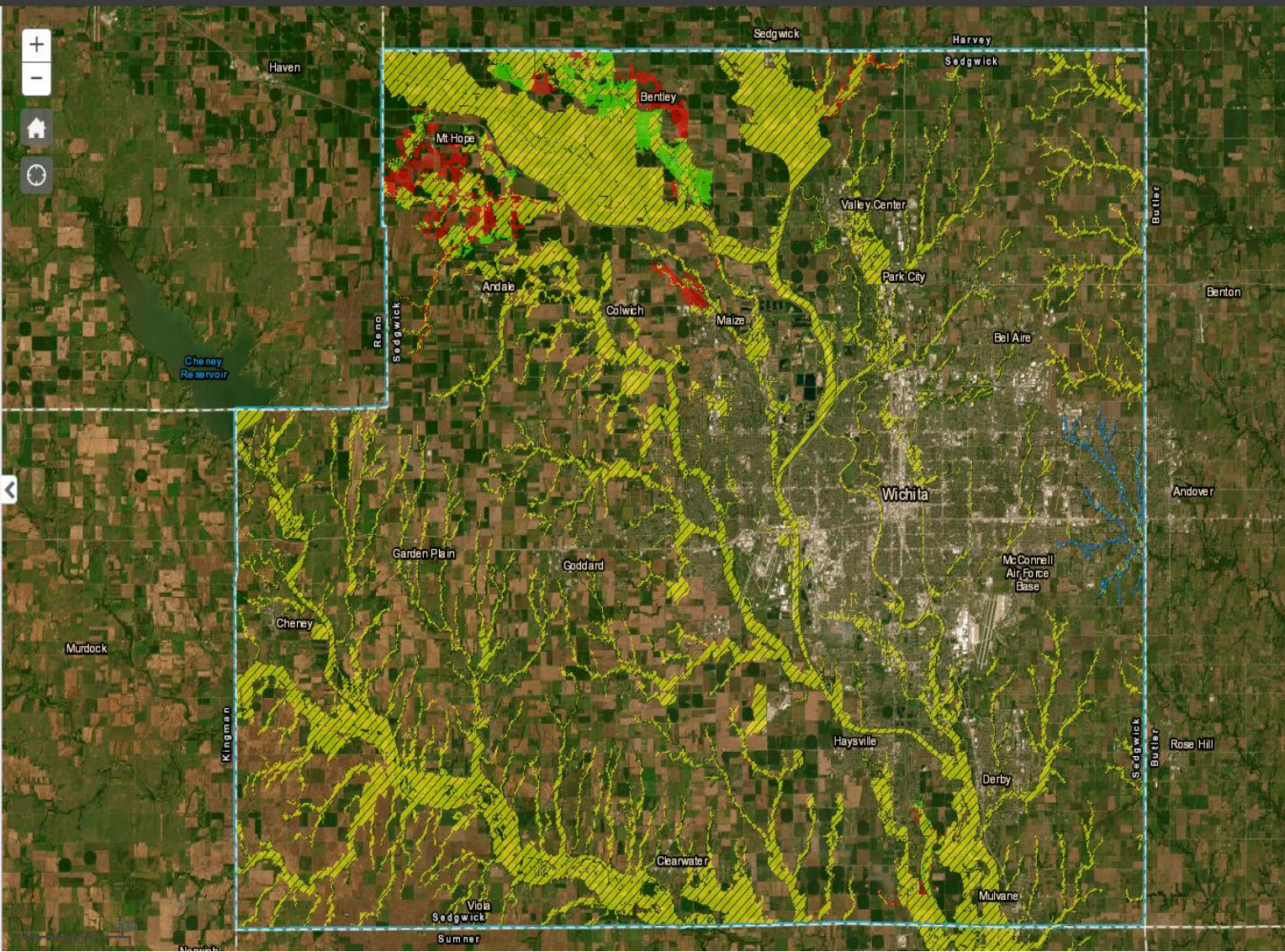
Enter an address or place

Increase or Decrease

Layers (Click to expand)

- Comments
- Sedgwick County PMR Floodplain Data
 - Sedgwick County Boundary
 - Streams
 - Draft Base Flood Elevation (BFE) - 8/5/2024
 - Draft Unmapped Cross-sections - 8/5/2024
 - Draft Mapped Cross-sections - 8/5/2024
 - Draft Floodway - 8/5/2024
 - Draft Changes Since Last FIRM - 8/5/2024
 - Draft Special Flood Hazard Area - 8/5/2024
 - Draft Advisory Floodplain - 8/5/2024
- Lower Middle Ark
- Walnut
- Lower Arkansas
- Current Effective Floodplain Data
- NG911

- ▶ Editor
- ▶ Draw
- ▶ Measurement
- ▶ Print
- ▶ Directions
- ▶ Google Street View



Your Map Review



Recent construction (e.g., a new building development that incorporated fill or changes to roadways, bridges, or culverts)



High Water Marks showing past flooding impacts



Floodplain boundaries that align with your experience of large-scale flooding



Model stream extents (where floodplains begin and end)



Political boundaries, especially if there is a recent annexation



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IMPORTANT STEP: All community comments will be addressed/reviewed before doing a public review

Your Residents Also Have the Opportunity to Review the Draft Data

- Can review and comment online, using same Review Web Map
- Will run for at least 30 days
- We will also hold an Open House
 - Typically consists of computer stations where public can discuss draft floodplains with KDA, engineers, mapping experts, and insurance specialists
- We'll need your help notifying your residents and finding location
- Tentatively scheduled for November 2024





Open Discussion

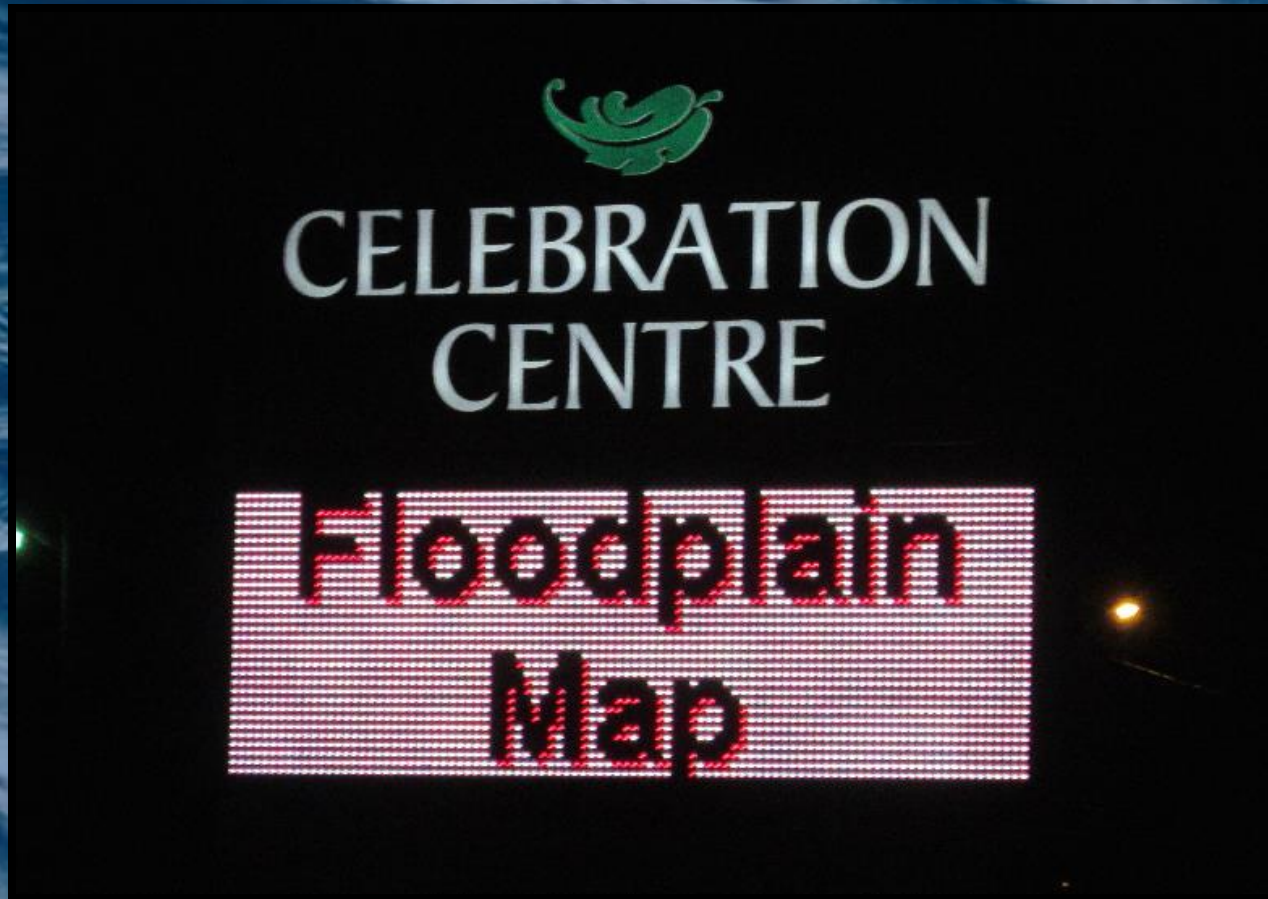
**Zoom attendants unmute
your phones and let's talk
about this.**

Our questions:

- What location should we hold the Open House?
- Could you help promote an Open House?
- If so, how would you do that? Social media? Newsletters? Website posting? Direct mail?


***What are your questions?
We know you have some...***

Next Steps




Timeline Review

- Your Review
 - Please get comments in by September 11, 2024
- Public Open House
 - Estimated: January 2025
- Preliminary Map Distribution
 - Estimated: March 2025
- Preliminary DFIRM Community Coordination Meeting
 - Estimated: May 2025
- Appeal Period
 - Estimated: May-January 2026
- Letter of Final Determination
 - Estimated: March 2026
- Effective Maps
 - Estimated: September 2026



Where we still have flexibility to change the data



Where you have to follow a more formal process (with higher effort) to request any changes to the data

Your Next Steps

Review your community's maps and comment on areas of concern AND/OR areas that look right.

There are a few ways to do this:



Lead the public outreach for your community

We can help you target who most needs to know;
but will need your help to lead the outreach effort

Let us know if you need help or have any remaining questions!



Key Take-aways

Floodplain Mapping Projects take time

Your involvement in this process will result in better flood information for your community

Get it right before Preliminary!

***DON'T HESITATE TO CALL,
WE ARE HERE TO HELP***

Where to go for...

INFEED



Online Project Information



- **Project Website**

- <https://www.agriculture.ks.gov/divisions-programs/division-of-water-resources/water-structures/floodplain-management/mapping/sedgwick-county-pmr>
- Scoping Maps, Meeting Presentations, Web Review Map, other information as relevant

- **Web Review Map**

- <https://gis2.kda.ks.gov/gis/sedgwick/>
- Draft Floodplain Review

- **Story Maps**

- “Floodplain Current”: Mapping Process ‘Nuts and Bolts’

Base Flood Elevation Portal



Kansas Base Flood Elevation Portal

[Home](#)[About](#)[Help](#)

Portal Registration

First Name

Last Name

User name

Title

Phone

Email Address

Address

City

Zip

State

Register

For Zone A floodplains, you can request BFE Data. Keep in mind that the data is still subject to change.

Contact Information



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Regional Project Officer



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And now...

*We are going to show you how
to make comments and review
your community's map*

Any questions first?