Kansas Department of Agriculture
Division of Water Resources

FEMA

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Woodson County

Floodplain Mapping Project
Data Development Kickoff Meeting

July 13, 2021

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

Your engagement in this process is important to the success of this project, so thank you for taking the time to be here today!

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Introductions

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Tara Lanzrath, CFM
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Joanna Rohlf, CFM
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William Pace, CFM
Floodplain Mapping Specialist

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State NFIP Coordinator

Cheyenne Sun Eagle
NFIP Specialist

FEMA – Region VII

Andy Megrail
Regional Project Officer

Wood Environment & Infrastructure Solutions

Joe File, PE, CFM
Senior Associate / Program Manager

Maria Neeland, PE, CFM
Project Manager / Engineer

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Today's Goals

- *Share details on the mapping project*
- *Get initial feedback on modeling methods*
- *Review future steps*

Background

Background

- Lower Neosho Custom Watershed BLE Project
  - *Kick-off Meeting and BLE Review: November 19, 2019*
  - *Discovery Meeting: April 15, 2020*
- Verdigris Custom Watershed BLE Project
  - *Kick-off Meeting and BLE Review: January 28, 2020*
  - *Discovery Meeting: April 21, 2020*

Background

- The only effective maps in Woodson County are for the City of Neosho Falls, which are dated April 1989.
- Through Discovery and conversations with County stakeholders, it was determined that Woodson County had interest in having County-wide regulatory maps.

Review of the Work Ahead and How We Propose Doing It

Woodson County Proposed Mapping Updates

Scoped Studies

New Zone A - Gage Analysis

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

New Zone A - Excess Rainfall on Grid

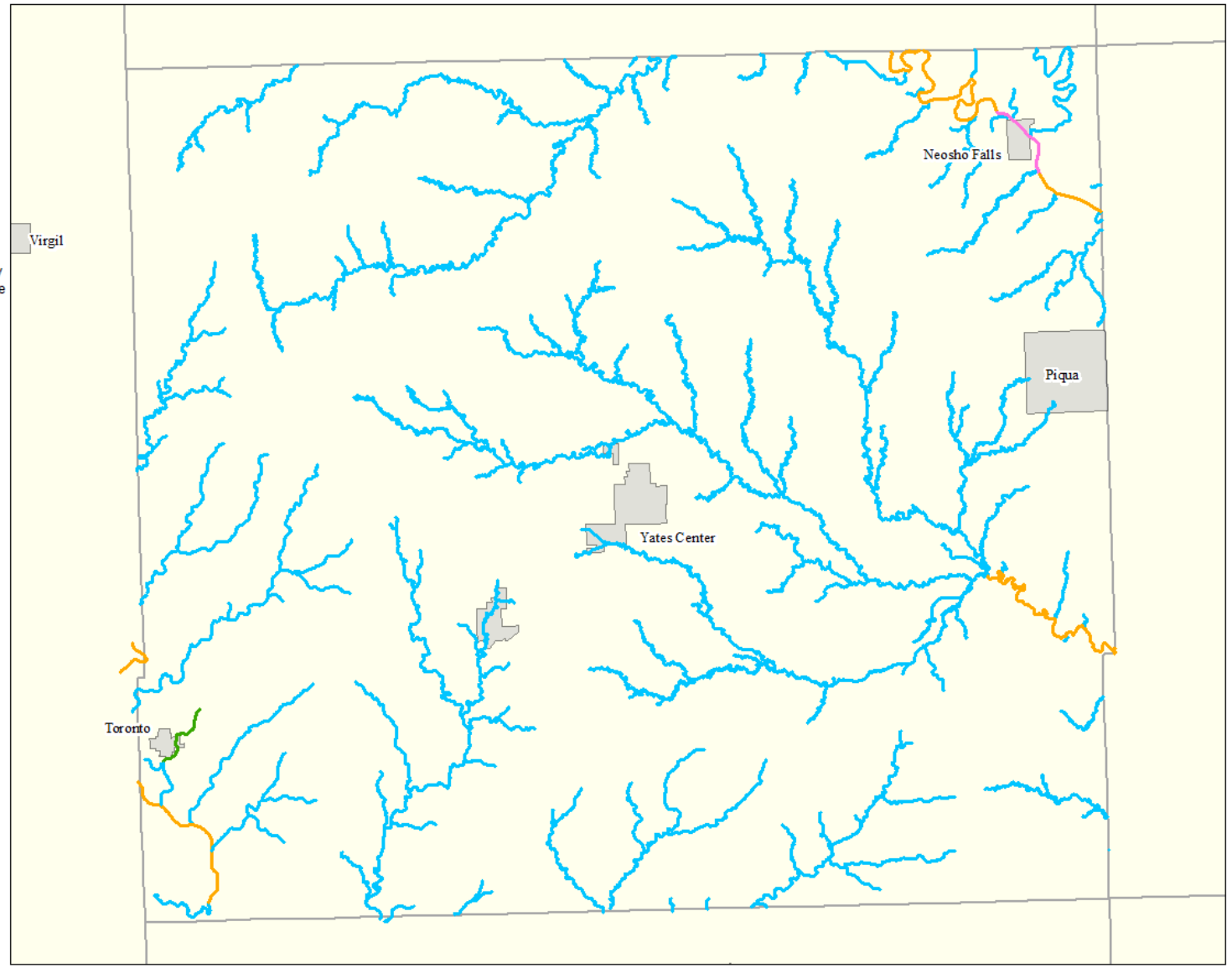
New Zone A studies will be developed for these streams using 2D "excess rainfall-on grid" hydrology and 2D Hec-Ras hydraulics.

New Enhanced Zone A - Gage Analysis

New Enhanced Zone A studies will be developed for these streams using 2D Hec-Ras hydraulics and hydrology calibrated to Gage Analysis flows. Field measured structure data will be incorporated into the modeling.

New Enhanced Zone A - Excess Rainfall on Grid

New Enhanced Zone A studies will be developed for these streams using 2D "excess rainfall-on grid" hydrology and 2D Hec-Ras hydraulics. Field measured structure data will be incorporated into the modeling.



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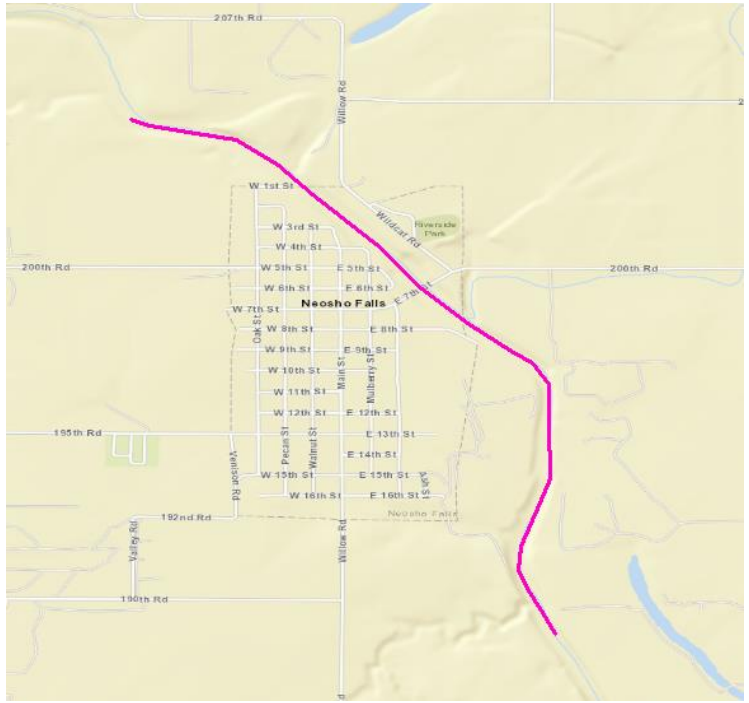
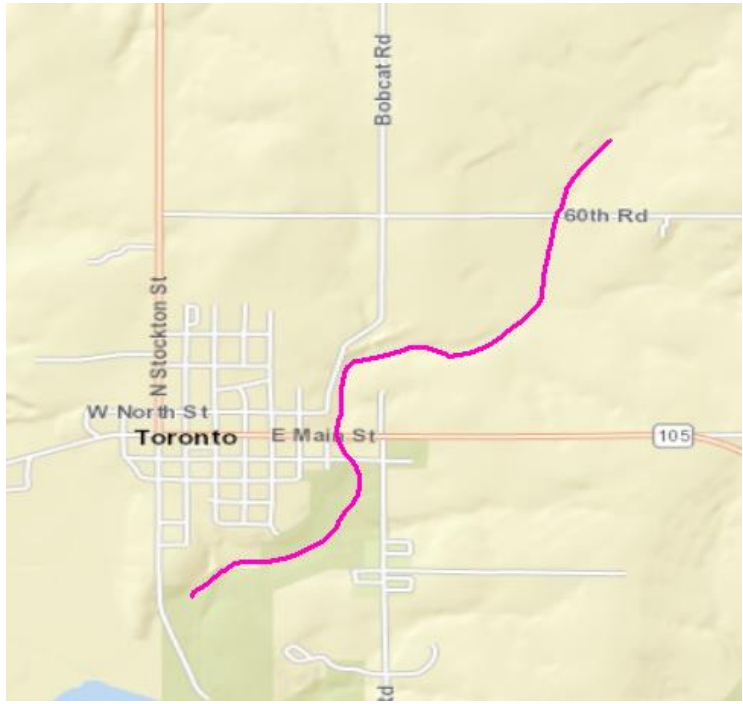
New Enhanced Zone A

- Neosho Falls:
  - Neosho River
- Toronto:
  - 1 Tributary to the Verdigris River





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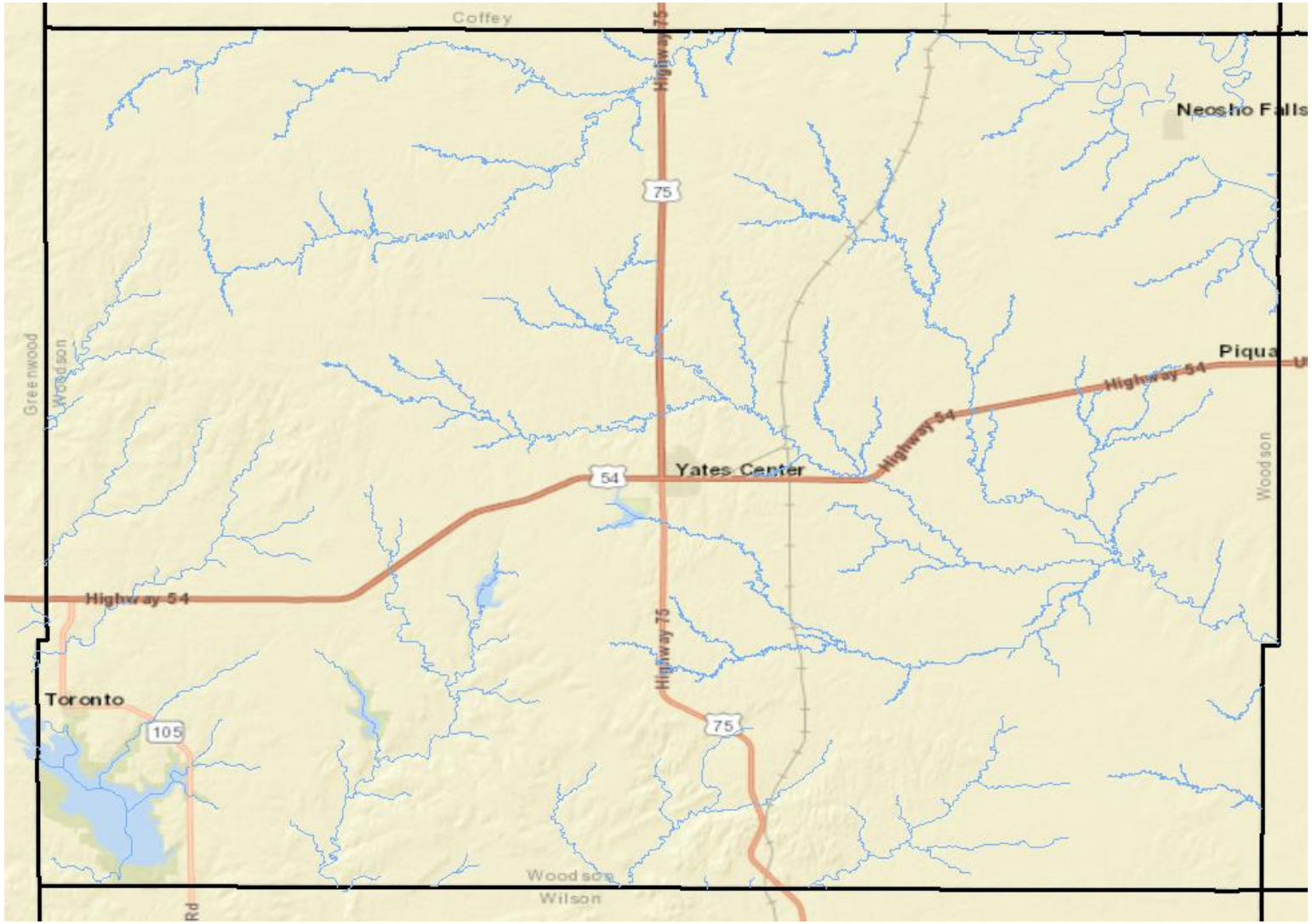
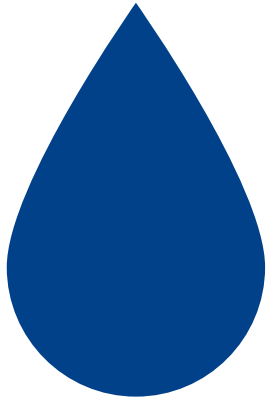
New Zone A

- Remainder of Streams in the County



Definitions



Hydrology

How Much Water?

Hydraulics

How High Will Water Get?

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2D Hydraulic Modeling will be used for all the streams in this study

- Enhancements will be made to the BLE modeling that was performed for the Zone A streams.
  - Comments made and additional information gathered during the Discovery phase will be used to enhance the modeling
  - Enhanced Zone A streams will include field measured data for culverts and bridges
- The hydrology is built into the RAS modeling platform using excess rainfall-on-grid methodology.
  - This will be calibrated to gage analysis flows

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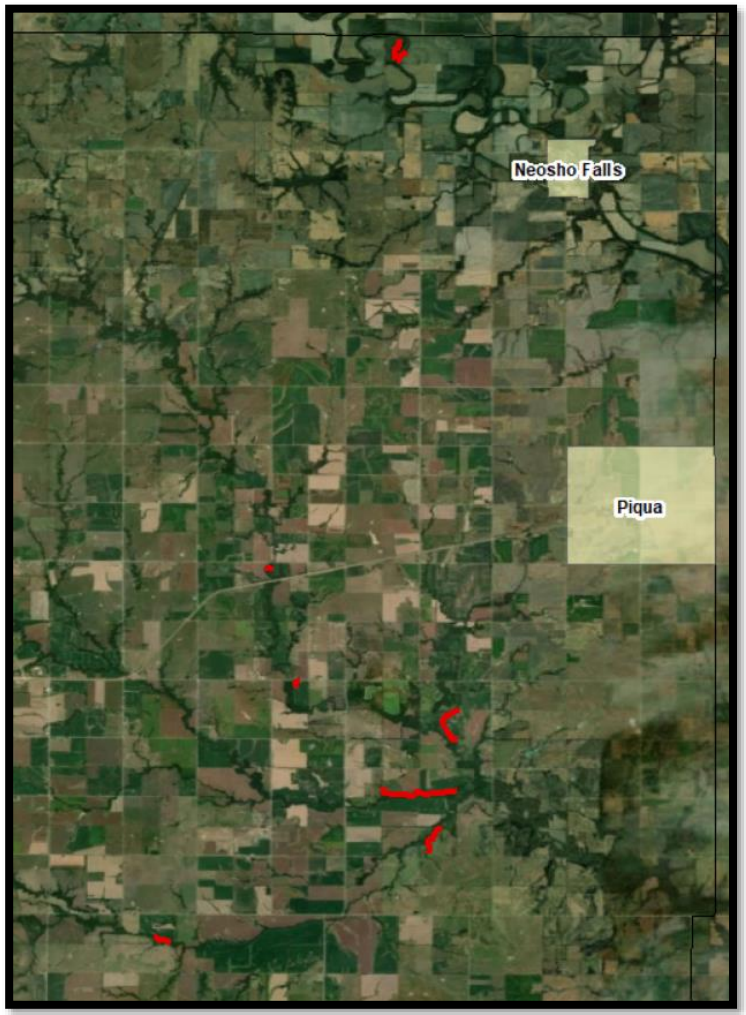
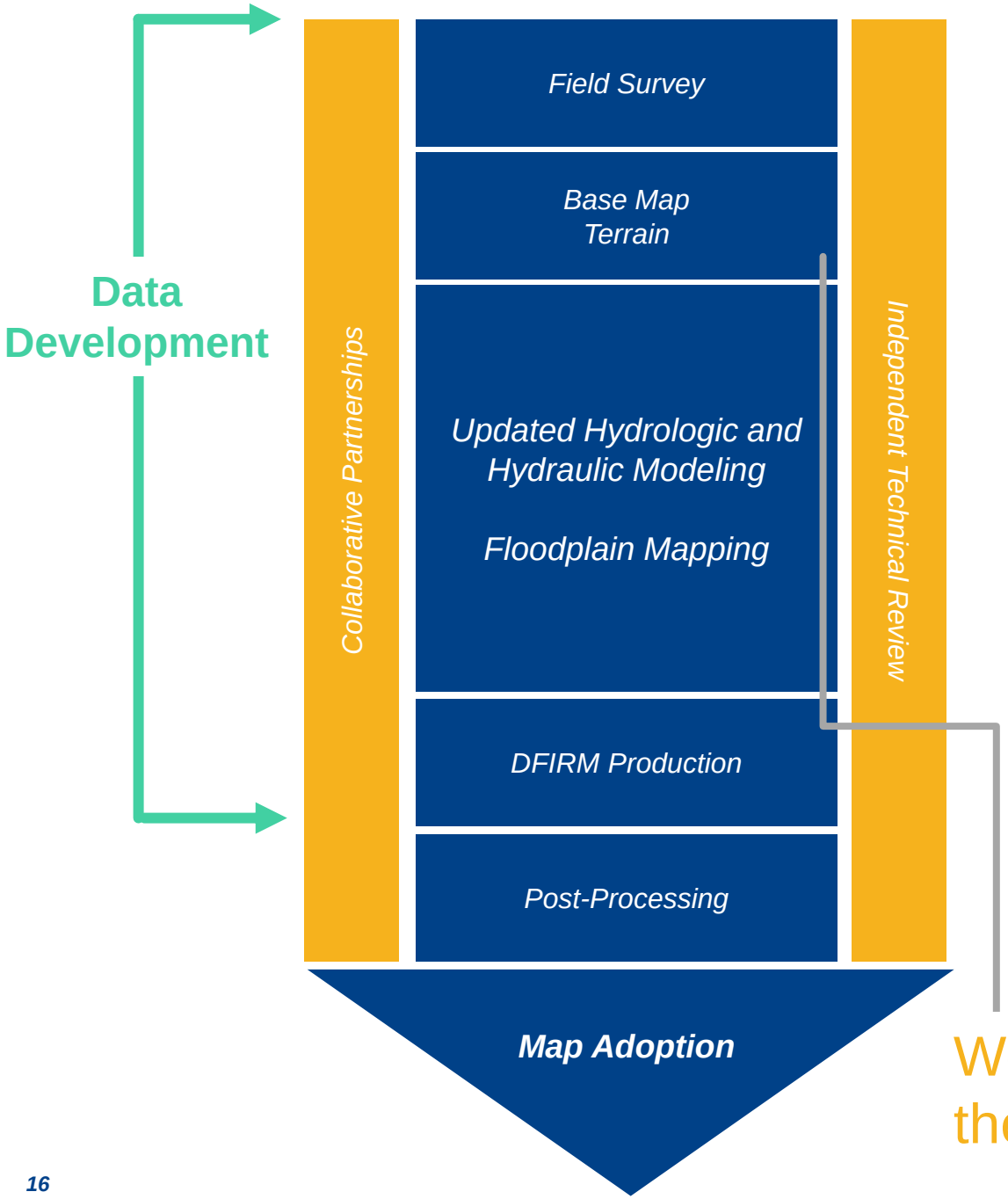
Non-Accredited Levees

- There is 8 Non-Accredited Ag Levees in the County
- These levees are overtopped for the 1% annual chance storm and are considered hydraulically insignificant. They are mapped as overtopping.



Next Steps



Project Tasks

1. Field Survey
2. Base Map and Topography Preparation
3. Hydrologic and Hydraulic Modeling
4. Floodplain Mapping
5. DFIRM and FIS Production
6. Post-Preliminary

We are about to begin the modeling task

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Our Next Steps:

- We will complete the engineering analysis previously described
- We will develop your draft regulatory floodplain maps.
  - Also known as your Flood Insurance Rate Map (FIRM)
- We will develop your draft Flood Insurance Study (FIS).
- We will have a community review period and a public review period

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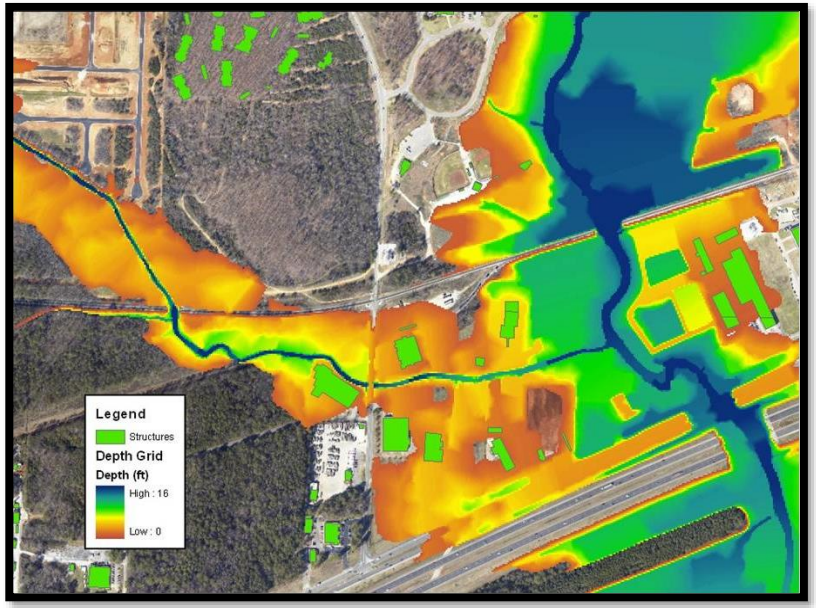
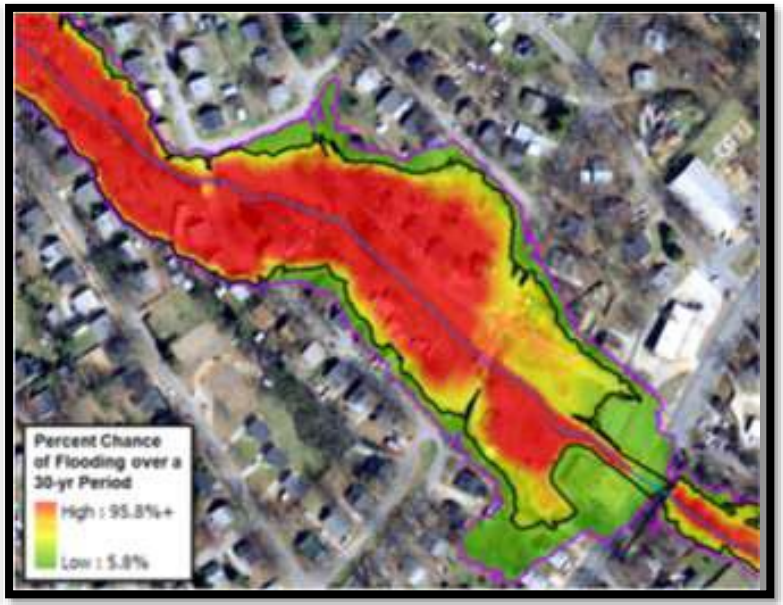
Our Next Steps:

- We will also be developing flood risk products for all of Woodson County as part of this project.
  - Will use the latest data available for all streams





Project Timeline

Kick-off Meeting and Initial Community Feedback:
[TODAY!]

Data Development Work:
[Now until fall 2021]

- *Base Map*
- *Topographic Data*
- *Field Survey*
- *Develop Hydrologic and Hydraulic Models*
- *Floodplain Mapping*

Flood Risk Review Meeting:

[~December 2021]

- *Your **review** and **feedback** on the draft maps*

Project Timeline, continued

Community **comments** will be **addressed**

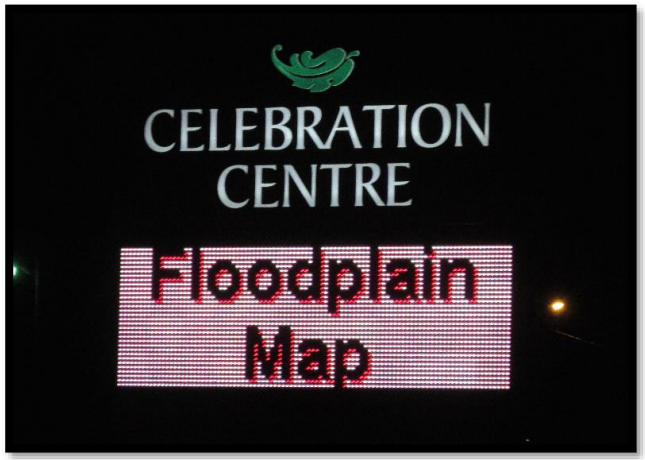
Public review of the draft maps

- *Includes Public Open House*

Preliminary Map Products

- *Preliminary DFIRM Community Coordination Meeting*

Post-Preliminary Processing



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Key Takeaways

Floodplain Mapping Projects take time

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

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

Resources

Online Project Information

Project Website

- Scoping Maps, Project Timeline, Meeting Presentations, Newsletters, Technical Reports, Web Review Map
- https://www.agriculture.ks.gov/divisions-programs/dwr/floodplain/mapping/mapping-projects/lists/mapping-projects/

Web Review Map

- Provide comments on areas impacted by past floods, community needs, etc.
- Review of floodplain data

Story Maps

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


Any Questions?