



Seward County




FEMA

*Floodplain Mapping Project
Data Development Kickoff Meeting*

March 28, 2024



*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!***



**THANK
YOU**



Introductions



Kansas Department of Agriculture

Joanna Rohlf, CFM
*Floodplain Mapping
Coordinator*

William Pace, CFM
*Floodplain Mapping
Specialist*

Keegan Schwartz
*Floodplain Outreach
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Project Manager

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State NFIP Coordinator

Cheyenne Sun Eagle, CFM
NFIP Specialist

FEMA – Region VII

Dawn Livingston
Regional Project Officer

Joe File, PE, CFM
Sr. Project Manager



Today's Goals

Share details on the mapping project

Get initial feedback on modeling methods

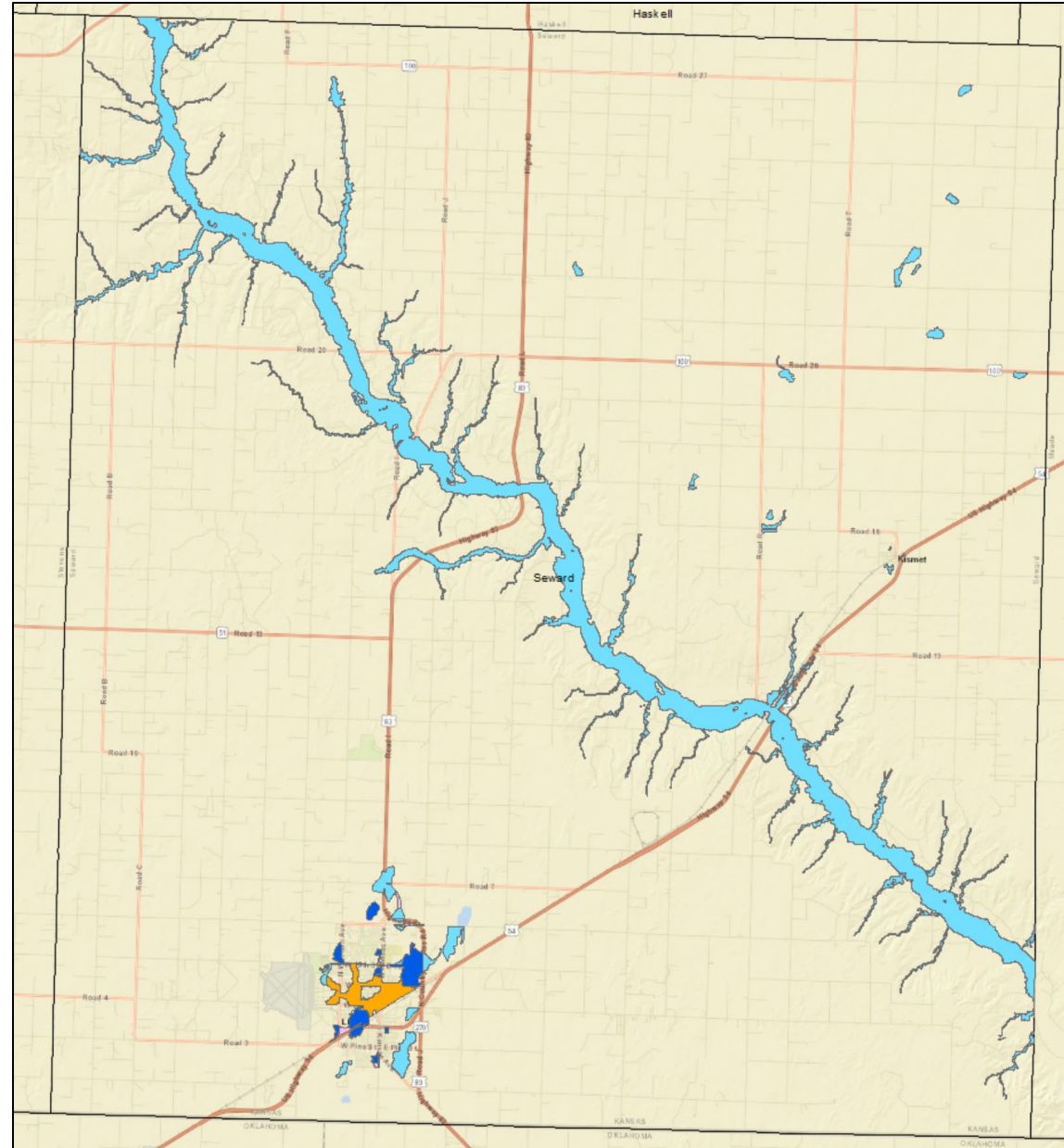
Review future steps


Background



Effective Seward County Maps

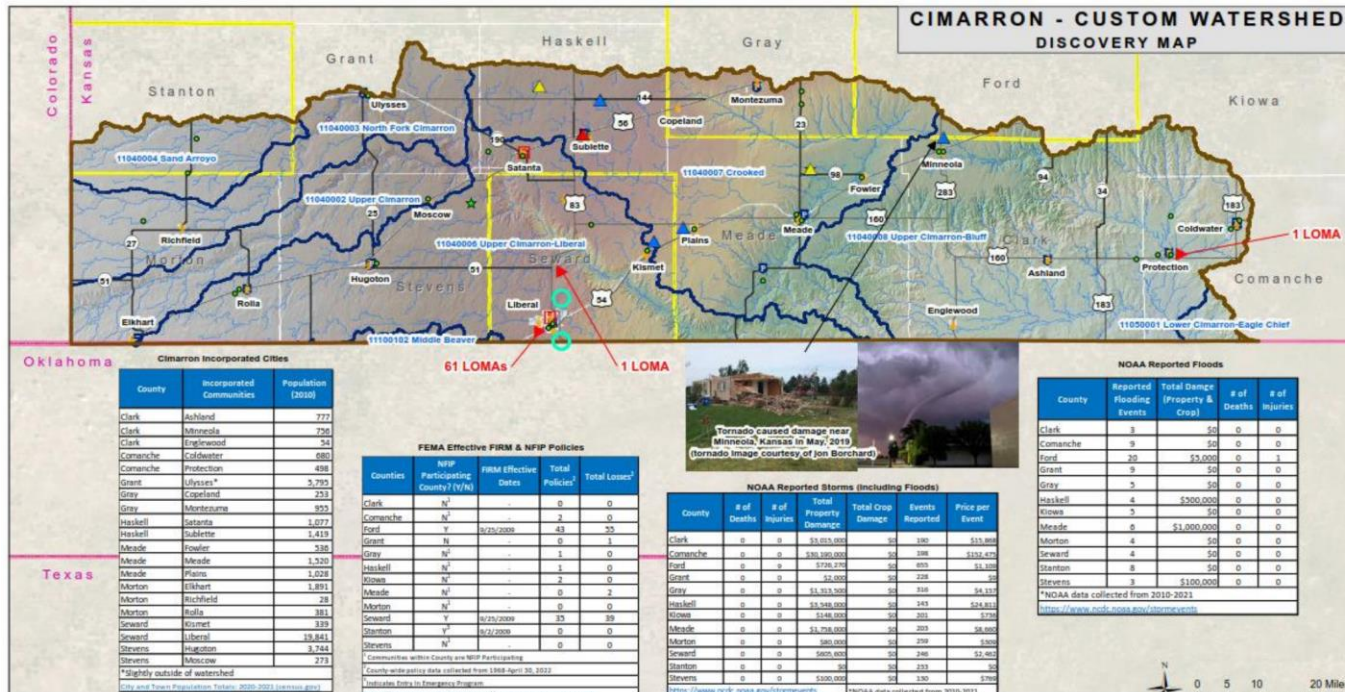
Effective September 2009



-  A
-  AE
-  AO
-  X, 0.2% AC

Background

- Cimarron Custom Watershed BLE Project
 - Kick-off Meeting: June 2022
 - Discovery Meeting and BLE Review: February 2023



Discovery Report

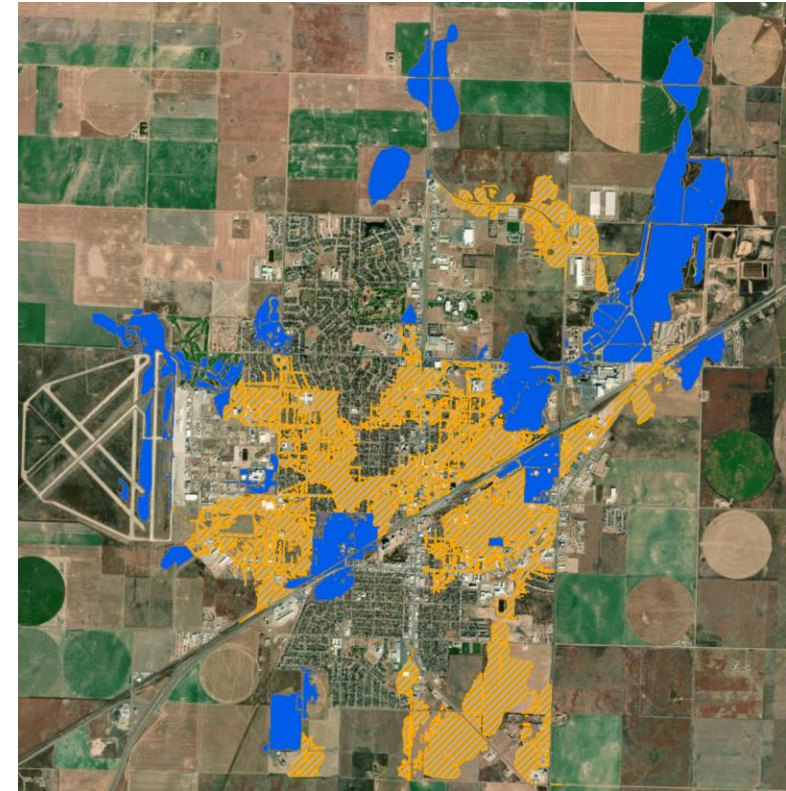
Cimarron Custom Watershed
 HUCs 11040002, 11040003, 11040004, 11040006, 11040007, 11040008, 11050001, and 11100102

July 2022
 MIP Case Number: 20-07-0011S



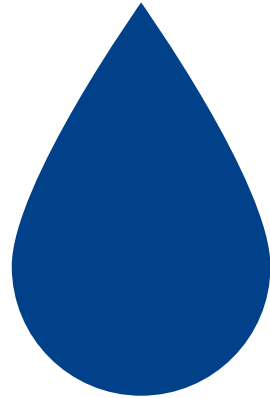
Background

- The City of Liberal contracted with Benesch in May 2023 to perform new modeling and draft mapping for the City.
 - New topography collected
 - Survey of storm sewer network and other structures
 - Detailed modeling performed
 - Draft floodplains have been developed
- Through Discovery and conversations with County stakeholders, it was determined that updated modeling and mapping for Seward County, using newer Lidar and 2D modeling techniques, would be beneficial.



Review of the Work Ahead and How We Propose Doing It

Definitions



Hydrology
How Much Water?

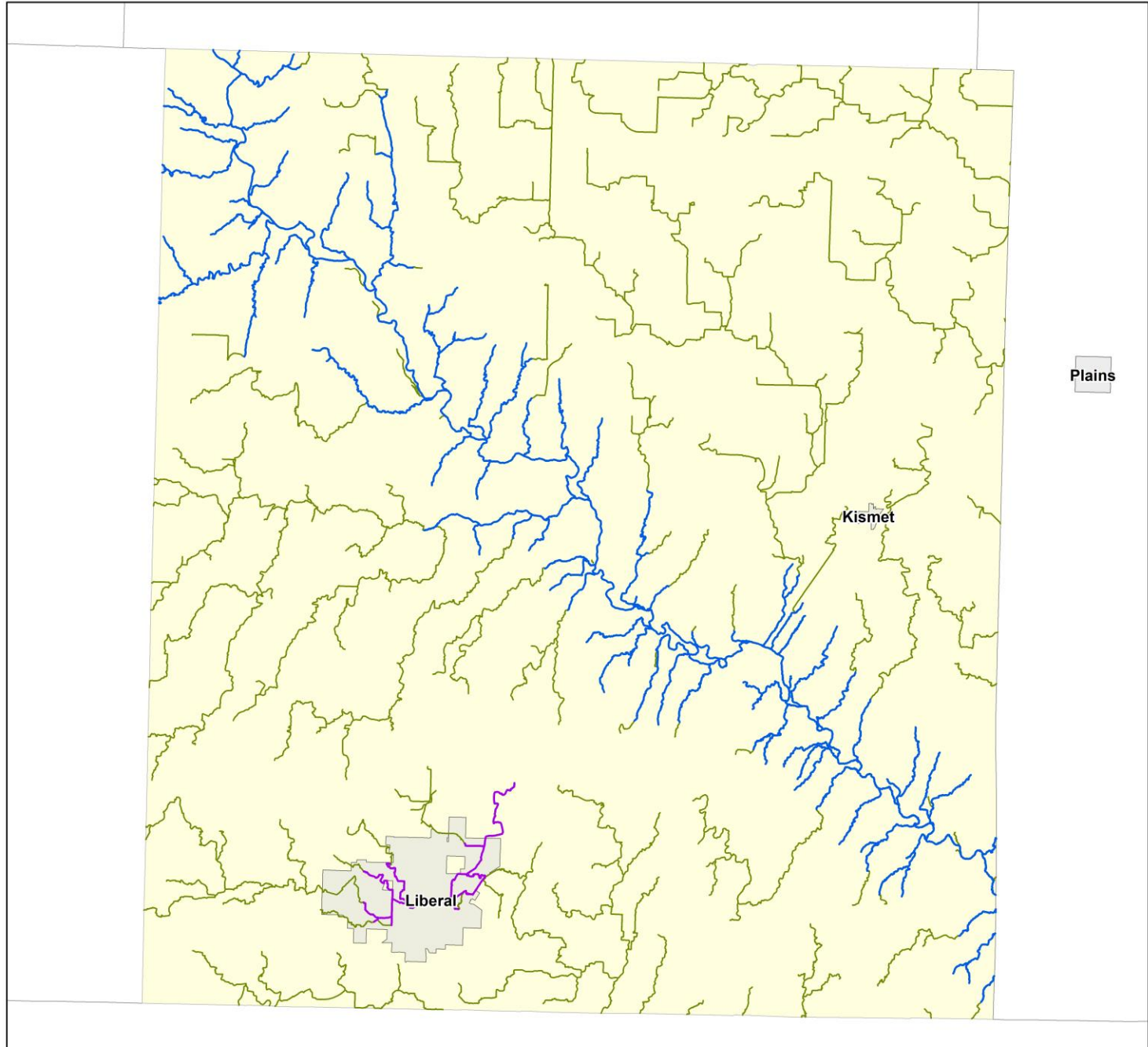
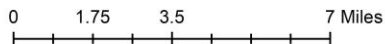


Hydraulics
How High Will Water Get?

Seward County 2024 Proposed Mapping Updates

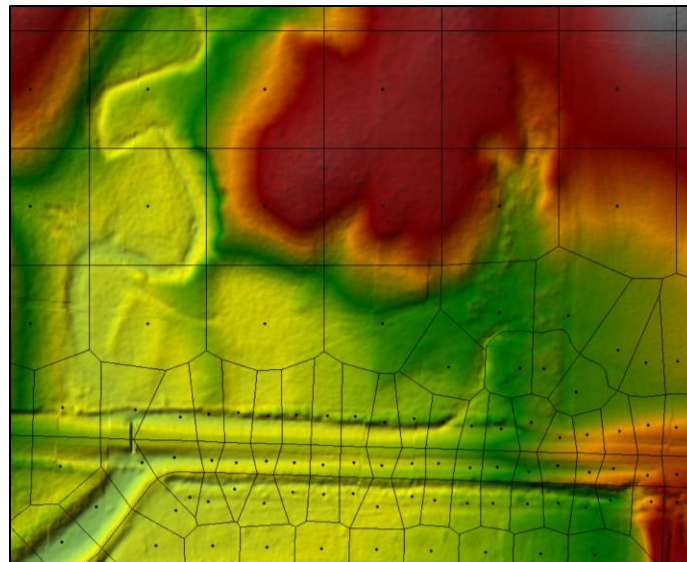
Scoped Studies

- New Potential Zone A**
New studies will be developed for these streams using 2D "rain on grid" hydrology and 2D HEC-RAS hydraulics. These segments appear to have defined channels and drainage paths. An SID exemption request will be made, as appropriate, for segments in the county that have 1 square mile of drainage or effective mapping, but lack defined drainage paths. Coordination will be made with KDA and FEMA for Zone A mapping.
- Leveraged Mapping**
The City of Liberal has funded new hydrological and hydraulic modeling, as well as floodplain mapping for the FEMA flooding sources in and around the City of Liberal. This data will be leveraged into the countywide mapping update.
- Playa Mapping**
An evaluation will be made for the playas that exist within the County to determine the areas that meet FEMA mapping requirements. Coordination will be made with KDA and FEMA for Zone A mapping of playas.

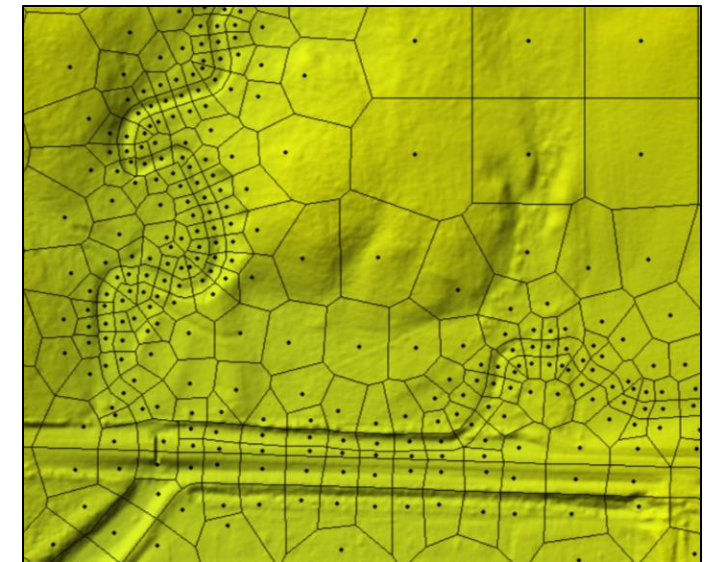


Model Enhancements

- Enhancements will be made to the BLE modeling that was performed.
 - Comments made and additional information gathered during the Discovery phase will be used to enhance the modeling.
 - Additional refinement of mesh will be done to improve accuracy of modeling.



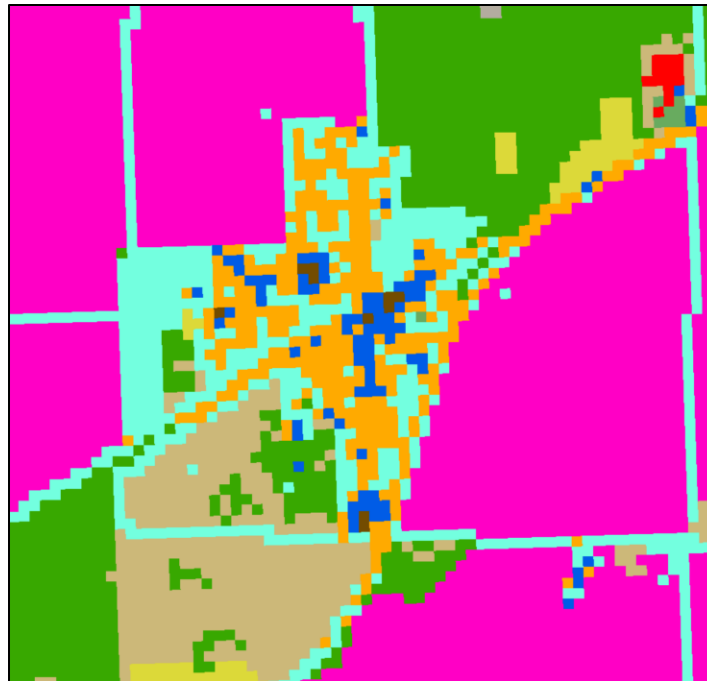
Coarser Mesh



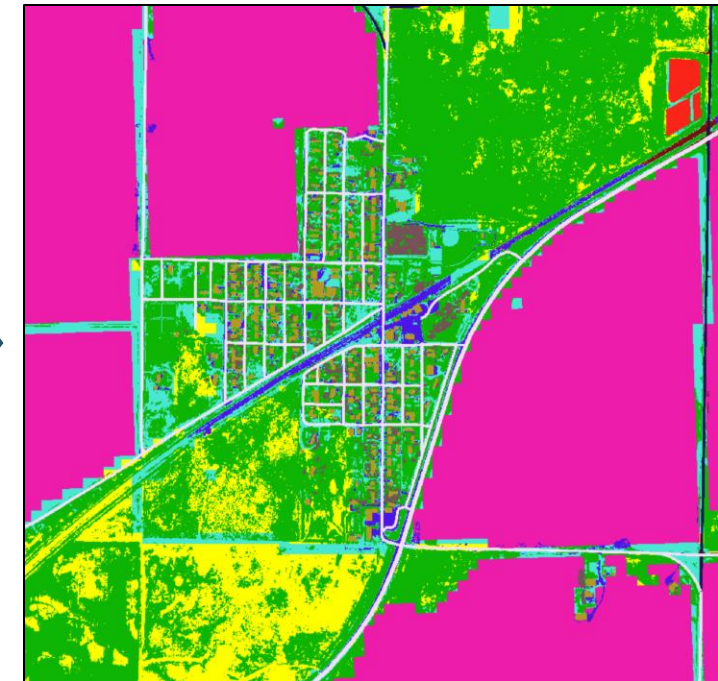
Refined Mesh

Model Enhancements

- Enhancements will be made to the BLE modeling that was performed.
 - Landuse refinements will be made.
 - Additional reviews will be performed



Standard Landuse



Refined Landuse



Model Enhancements

- The hydrology is built into the RAS modeling platform using excess rainfall-on-grid methodology.
- Hydrologic information will be updated to utilize newer features within software and improve accuracy of modeling.
 - Refine infiltration information
 - Adjust storm duration to be more representative of Western Kansas storms
- The Cimarron River flows will be calibrated to statistical gage analysis

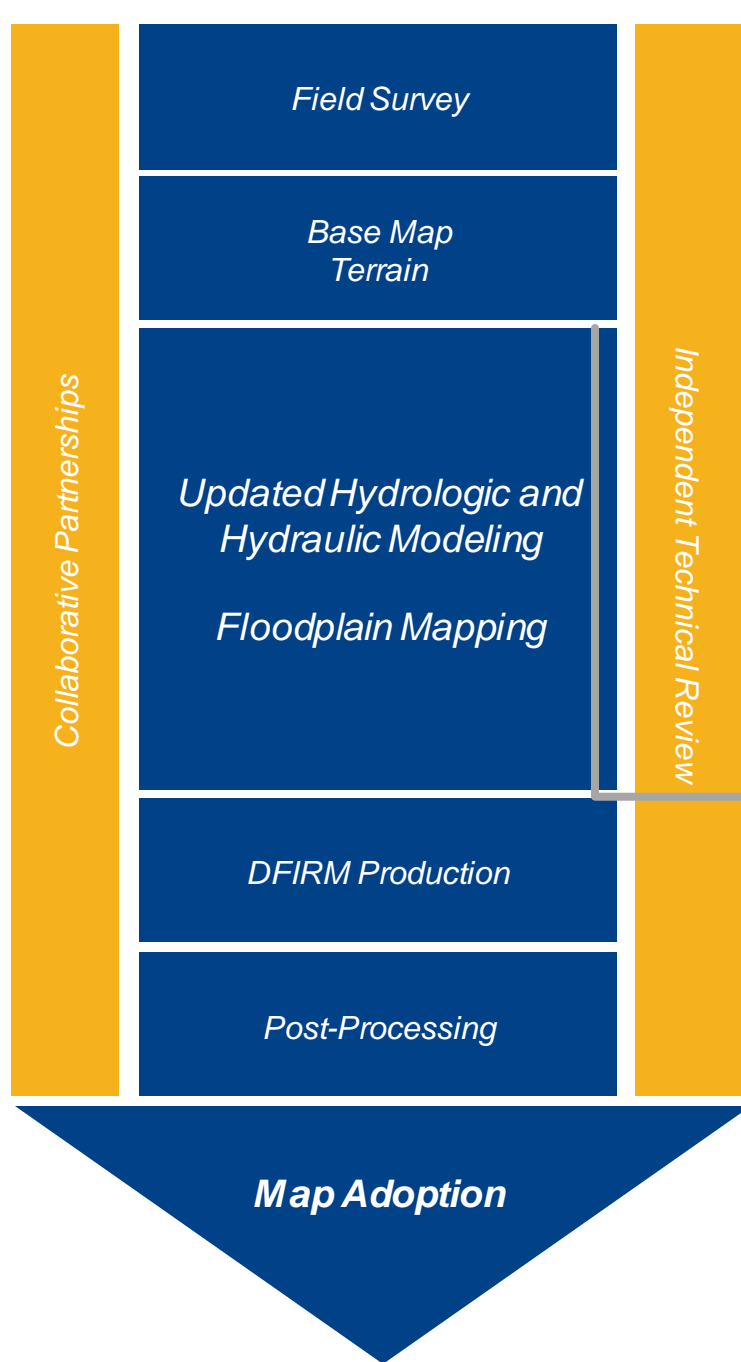


- Mapping determinations will be made for Zone A streams and playas using acceptable mapping criteria.
 - Mapped streams have defined bed and banks
 - Mapped playas have drainage areas of 1 sq mile or greater
 - Mapped playas show extended static ponding in model

Draft Mapping

Next Steps

Data
Development



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 ready to move forward with the modeling task



Our Next Steps:

- We will complete the engineering analysis previously described.
- Several rounds of reviews will be completed.
- 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 Flood Risk Review meeting, combined with the community review period.
- We will have a Public Open House, combined with a public review period.



We will also be developing flood risk products for the studied areas in Seward County as part of this project.

Our Next Steps:


Water Surface Elevation Grids



Water Depth Grids



Project Timeline



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

**Data Development
Work:**

[Now until the fall of 2024]

- *Develop Hydrologic and Hydraulic Models*
- *Develop Draft Floodplain Maps*

**Flood Risk Review
Meeting:**

[~October 2024]

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

Project Timeline, continued

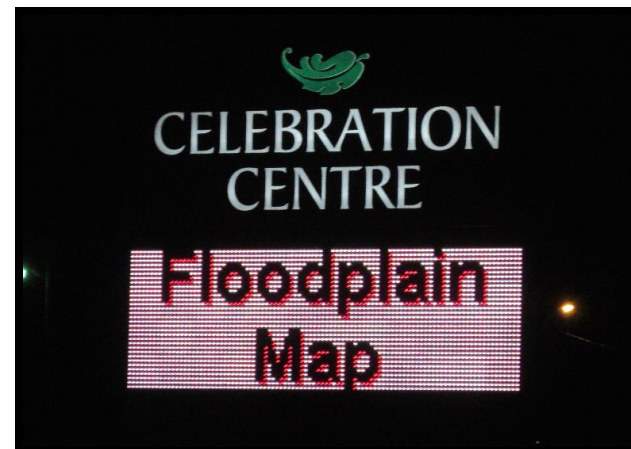
Community comments will be addressed

- *Updates will be made to modeling and mapping*



Public review of the draft maps

- *Includes Public Open House*



Preliminary Map Products

- *Preliminary DFIRM Community Coordination Meeting*



Post-Preliminary Processing



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://agriculture.ks.gov/divisions-programs/dwr/floodplain/mapping/mapping-projects/>
- **Web Review Map** <https://gis2.kda.ks.gov/gis/seward/>
- 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’



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Discussion and Questions
