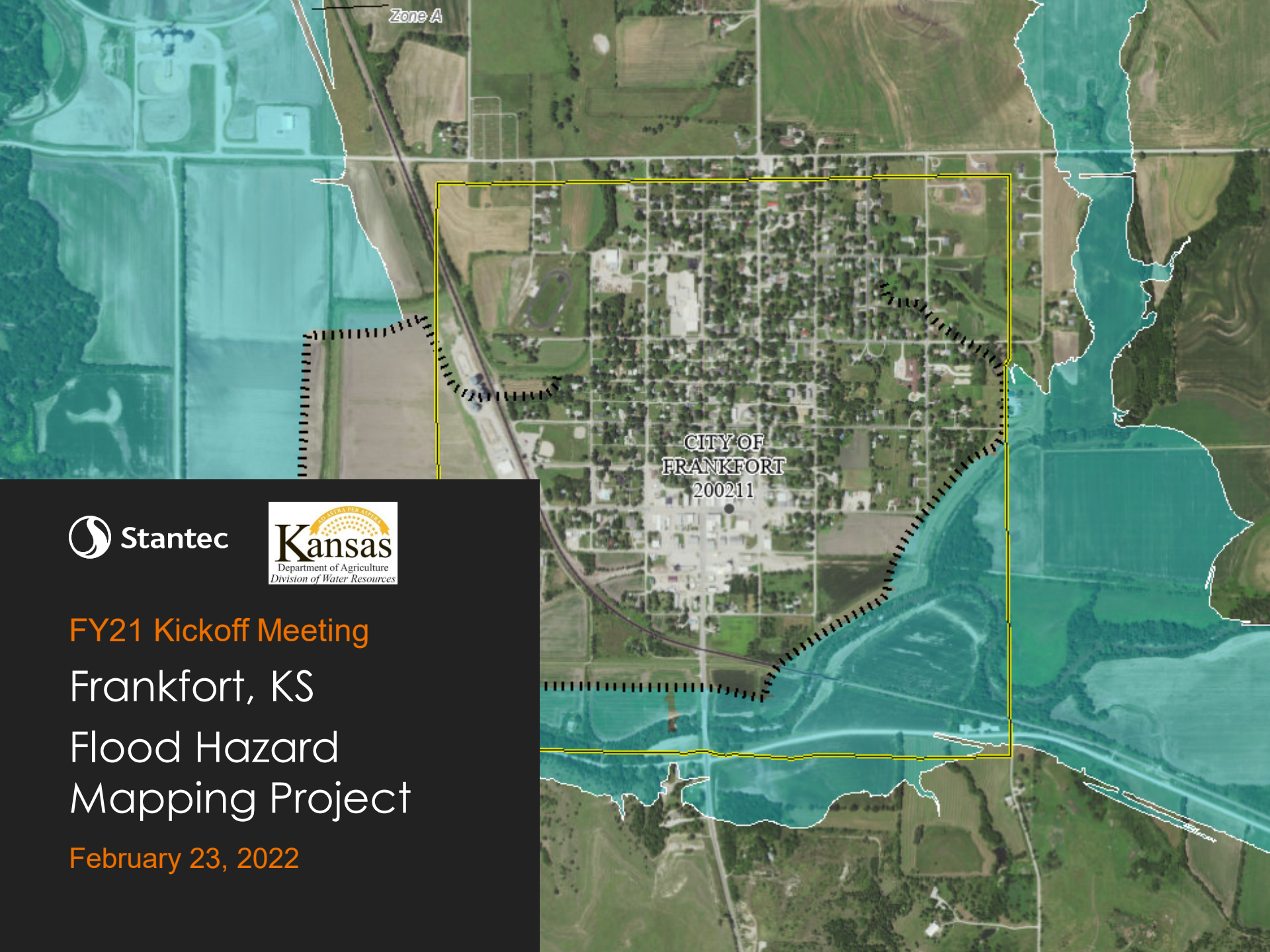

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FY21 Kickoff Meeting

Frankfort, KS Flood Hazard Mapping Project

February 23, 2022

Introductions

- Kansas Department of Agriculture
- FEMA
- Stantec
- Marshall County
- City of Frankfort

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Agenda

1. Background
2. Project Scope
3. Path Forward

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Background

Timeline

- April 2012: Zone A Hydrologic and Hydraulic analysis of flooding sources within Marshall County completed by Olsson Associates and Anderson Consulting Engineers, Inc
- May 2017: Effective FIS and FIRM for Marshall County, Kansas showing no flood hazards behind the Frankfort Levee system
  - Seclusion Boundary
  - Note to users states levee does not comply with 44 CFR 65.10 and will be revised at a later date to include flood hazard information associated with the levee

Background (cont.)

- 7/27/2017: Local Levee Partnership Team (LLPT) meeting
- 1/31/2018: LAMP Plan completed = Natural Valley (if no additional engineering/construction provided by City and/or County)
    - Enhanced detailed hydrologic and hydraulic analysis needed to determine BFEs of Black Vermillion River, Robidoux Creek, and Little Timber Creek

- 01/02/2022: KDA initiates a new detailed hydrologic and hydraulics study to develop flood risk data for the flooding sources along the Frankfort Levee
- 2/23/2022 (Today): Kickoff Meeting with City and County

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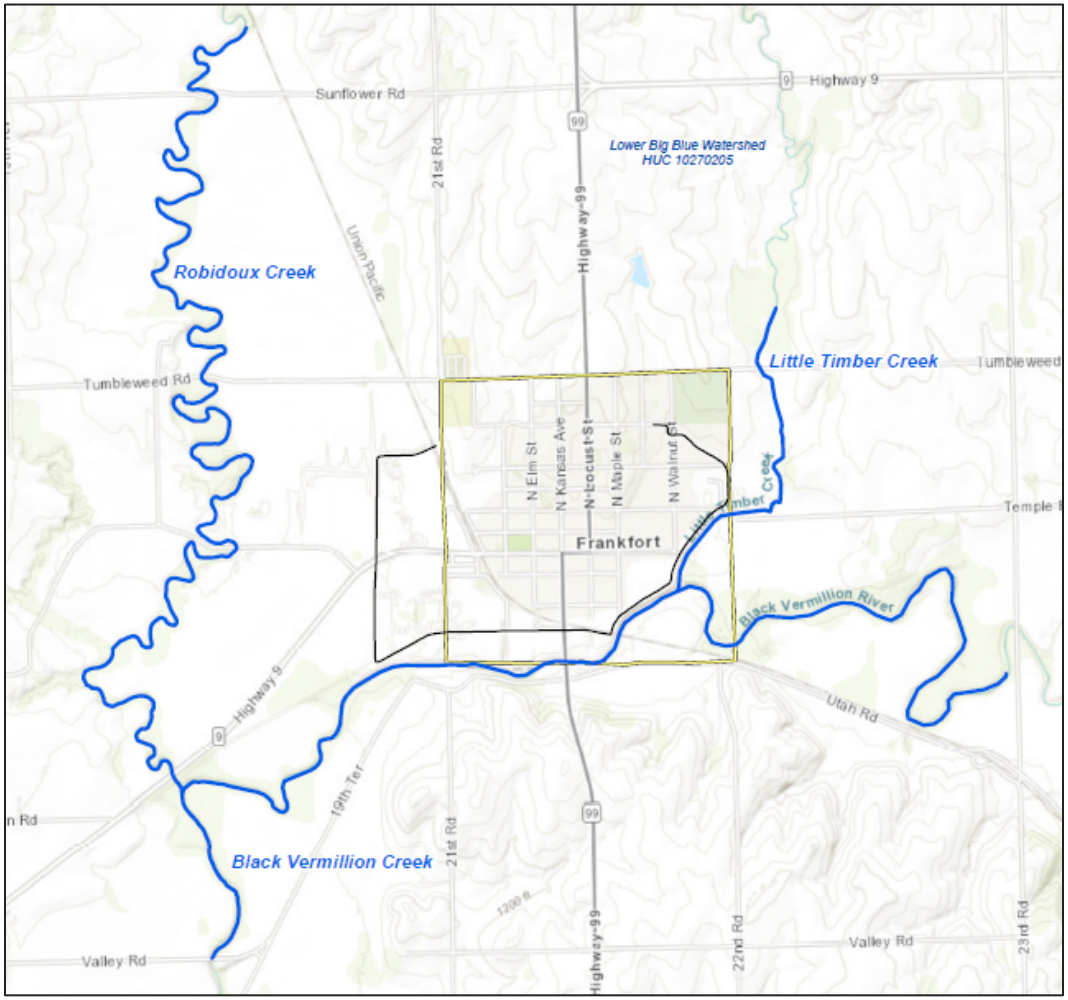
Project Scope



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Project Scope

- Period of Performance is 1/02/2022 – 3/31/2023
- Terrain Data Capture
  - Acquire 2018 LiDAR for project footprint
  - Format to meet FEMA's Data Capture Standards (DCS)

- Survey Data Capture
  - Structures Survey
    - 4 bridges along Robidoux Creek, 1 bridge along Little Timber Creek
    - Leverage structure data for Black Vermillion River from 2012 Zone A modeling
  - Cross-section Survey
    - 6 locations along the Black Vermillion River, 4 location along Robidoux Creek
  - Format to meet FEMA's Data Capture Standards (DCS)

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Project Scope

- Hydrologic Analysis
  - Develop flows for the 10-, 2-, 4-, 1-, 1plus-, and 0.2-percent annual chance flood events
  - Black Vermillion River
    - Bulletin 17C Gage Analysis
    - USGS Gage 06885500 Black Vermillion River near Frankfort, KS
  - Robidoux Creek and Little Timber Creek
    - HEC-HMS
  - Format to meet FEMA's Data Capture Standards (DCS)

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Project Scope

- Hydraulics
  - Develop 1D/2D HEC-RAS models for Black Vermillion River, Robidoux Creek, and Little Timber Creek
    - 2D areas landward of the Frankfort Levee
  - Perform ‘with levee’ and Natural Valley analysis
  - Perform Floodway Analysis to comply with FEMA levee guidance
  - Flood Profiles and Floodway Data Tables
  - Format to meet FEMA’s Data Capture Standards (DCS)

Project Scope

- Draft DFIRM Database
  - 1% and 0.2% flood boundary delineations for “with levee” and Natural Valley
  - Floodway delineation
  - BFEs and cross-sections mapped
  - Flood Risk Review (FRR) meeting with community showing mapping results for community review

- Flood Risk Products
  - 1% flood depth grid
  - 1% water surface elevation grid
  - Supplemental Changes Since Last FIRM (CSLF)

Path Forward

Schedule

- March 2022 – Complete Terrain Data
- May 2022 – Complete Survey Data
- June 2022 – Complete Hydrologic Data
- November 2022 – Complete Hydraulic Data
- February 2023 – Complete DFIRM Database
- February 2023 – Complete Flood Risk Products
- March 2023 – Flood Engineering Review Meeting

Data will be hosted on KDA's web viewer as it becomes available
https://gis2.kda.ks.gov/gis/frankfort/

City Decision Point – Pursue Accreditation?

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Path Forward

Example levee accreditation process

- 90 days to procure an engineer towards certifying data
- 18 months to produce and submit certified data to FEMA
  - Plan on submitting 6 month progress reports
- 30 days FEMA Completeness Check
  - Expect comments to respond
  - Back and forth until accepted
- FEMA mail acceptance letter
- Project proceeds towards levee accreditation

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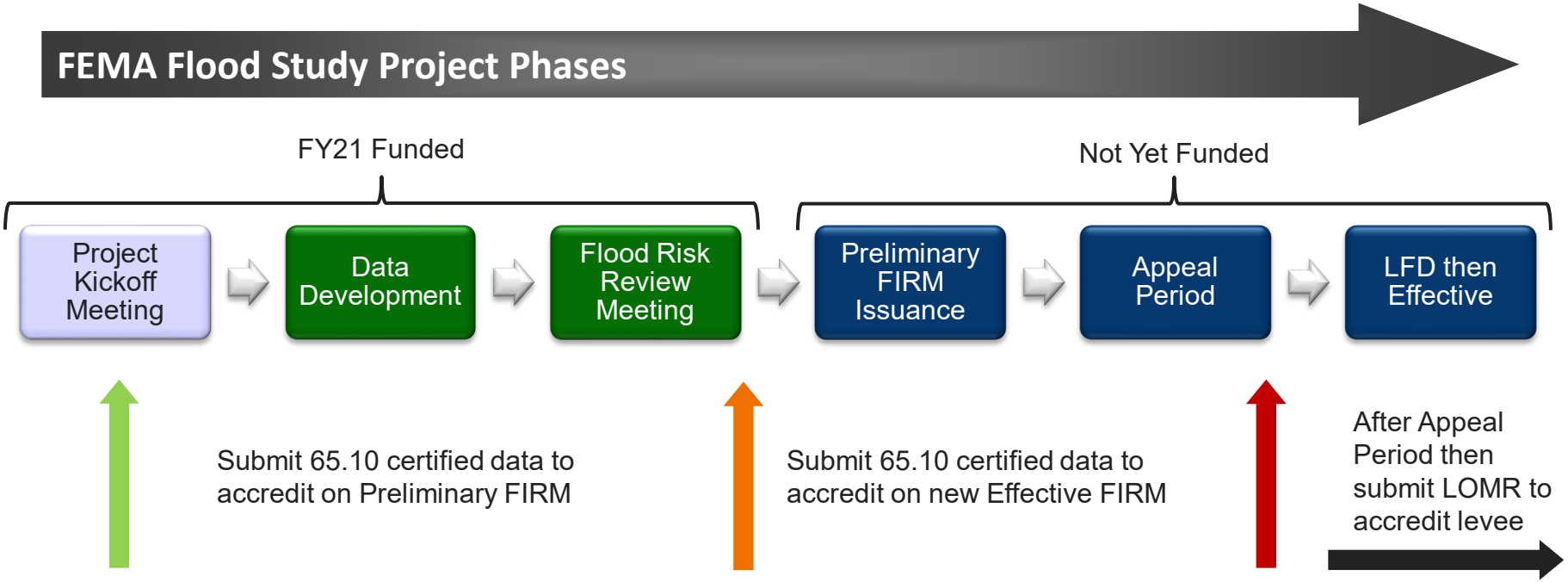
Path Forward

Opportunities to change levee mapping approach

- Certified data can be submitted to FEMA at any time during this project



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Questions?

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