

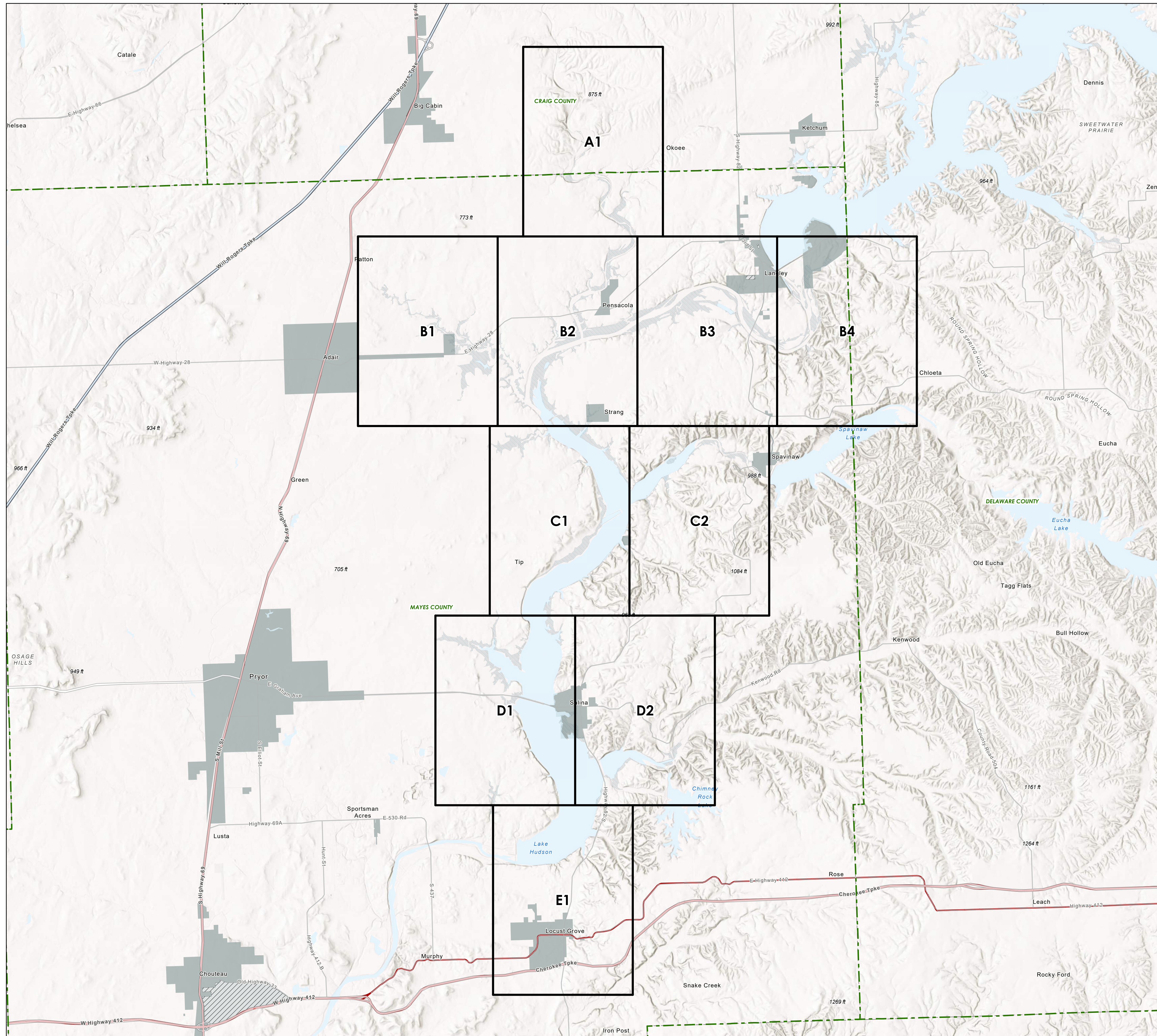


APPENDIX E.6:
100-YEAR EVENT INUNDATION MAPS



Downstream Model Results Overview Map

Pensacola Dam
GRAND RIVER DAM AUTHORITY
Date: September 2022

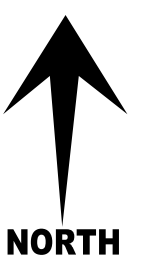
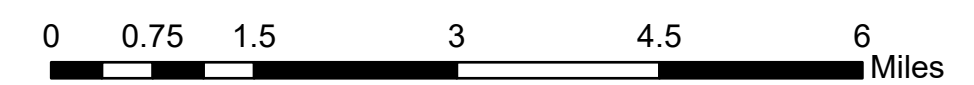
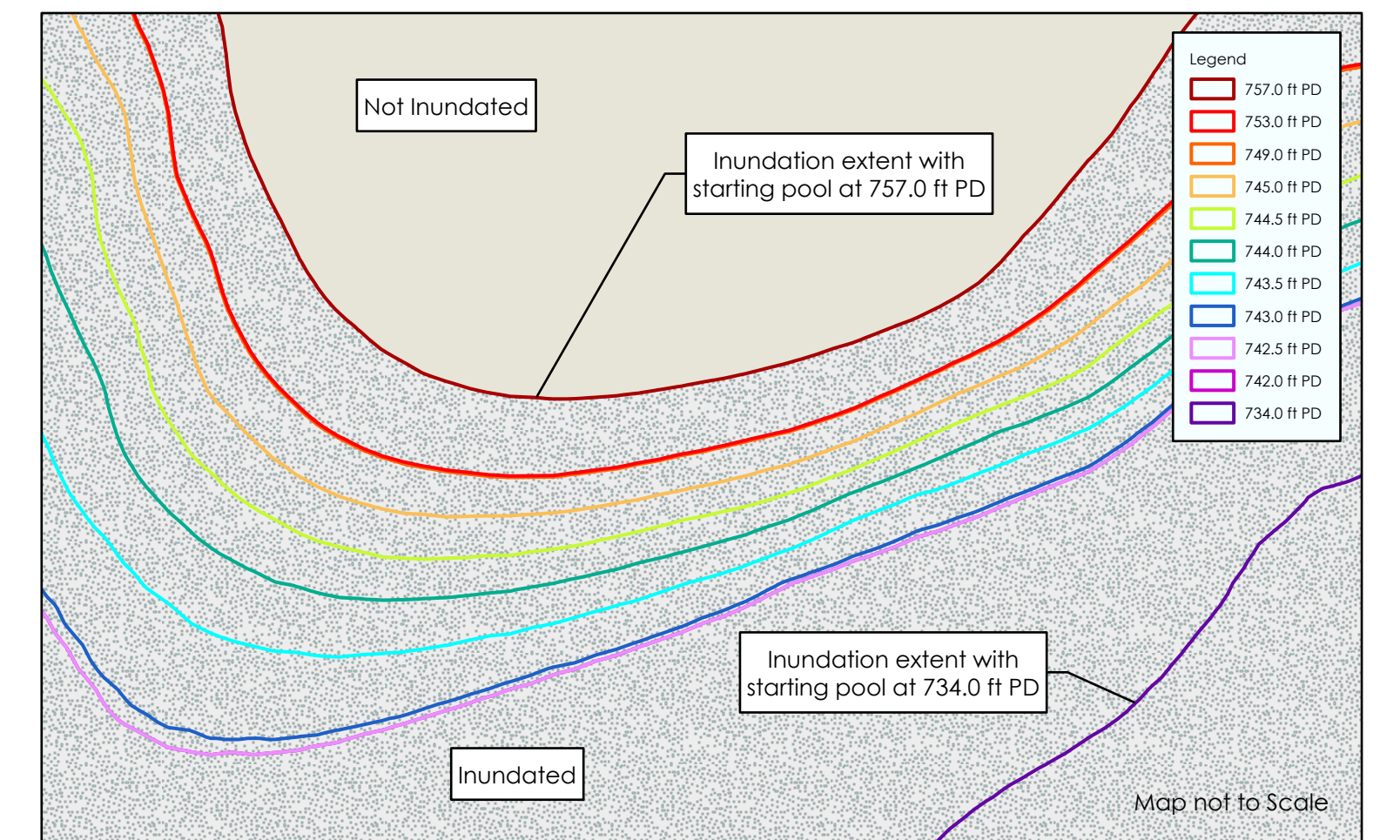


Overview Map Legend

1:24,000-scale Map Sheet	Road Class
County Boundary	Interstate
Municipality	US Highway
Unincorporated	

Inundation Scenario Mapping

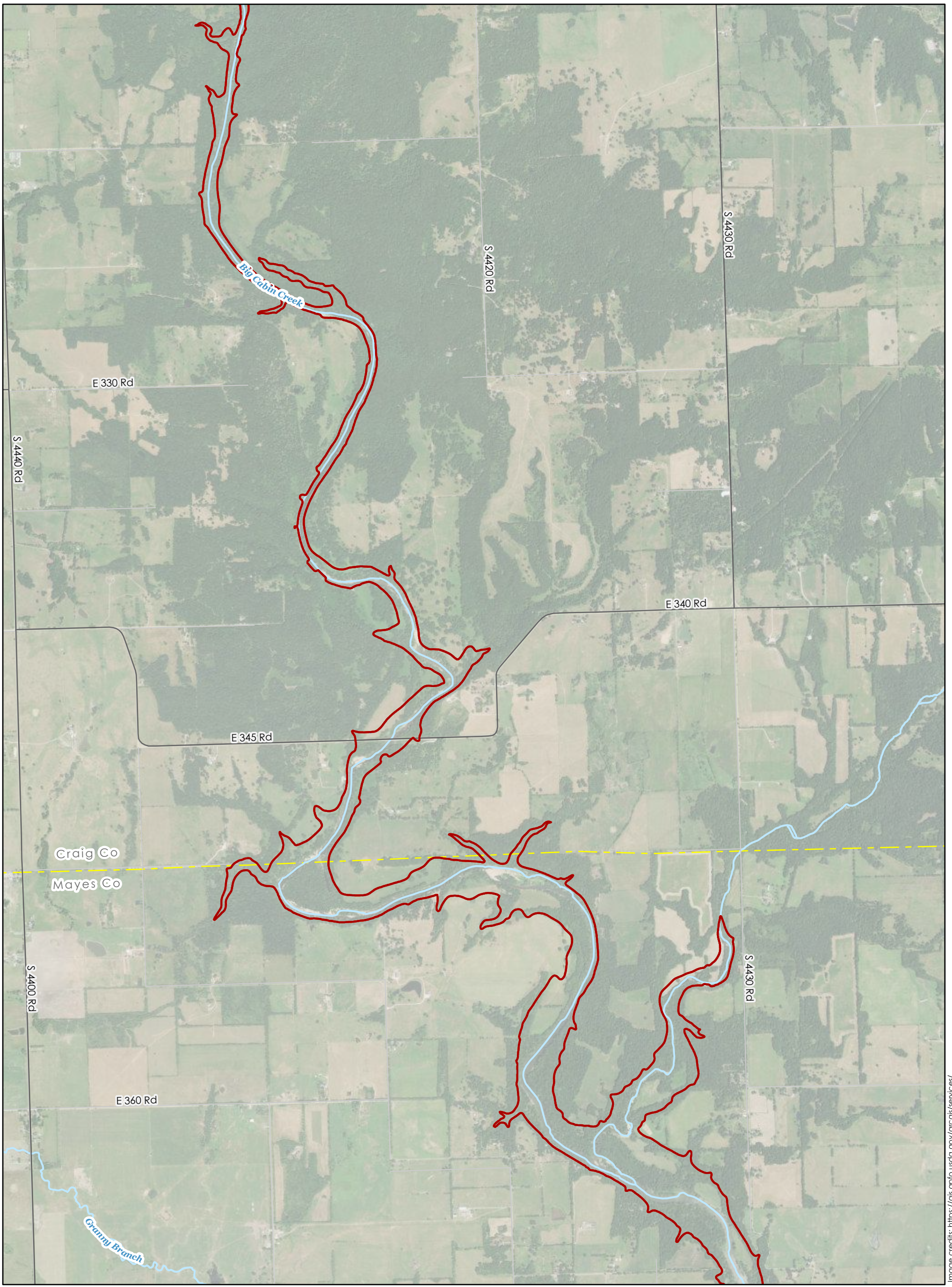
Mapping shows the extent of inundation for the selected hydraulic event under different starting pool elevations at Pensacola Dam: 734.0 ft PD, 742.0 ft PD, 742.5 ft PD, 743.0 ft PD, 743.5 ft PD, 744.0 ft PD, 744.5 ft PD, 745.0 ft PD, 749.0 ft PD, 753.0 ft PD, and 757.0 ft PD.



Map Notes

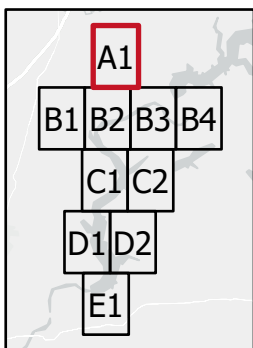
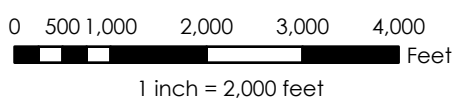
Data Sources for Maps:

1. Base map images from https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019.
2. Transportation network (major roads, local roads, and railroads) and county boundaries obtained from the Oklahoma Office of Geographic Information (<http://okmaps.org/cgi/search.aspx>).



B2 B2 B3

100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION

757.0 ft PD	743.5 ft PD
753.0 ft PD	743.0 ft PD
749.0 ft PD	742.5 ft PD
745.0 ft PD	742.0 ft PD
744.5 ft PD	734.0 ft PD
744.0 ft PD	

Legend

ROAD CLASS

Interstate
State Highway
US Highway
Major Collector
Local Road

BOUNDARY TYPE

Stream
Project
County
Municipal

MAP AND LEGEND NOTES

1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

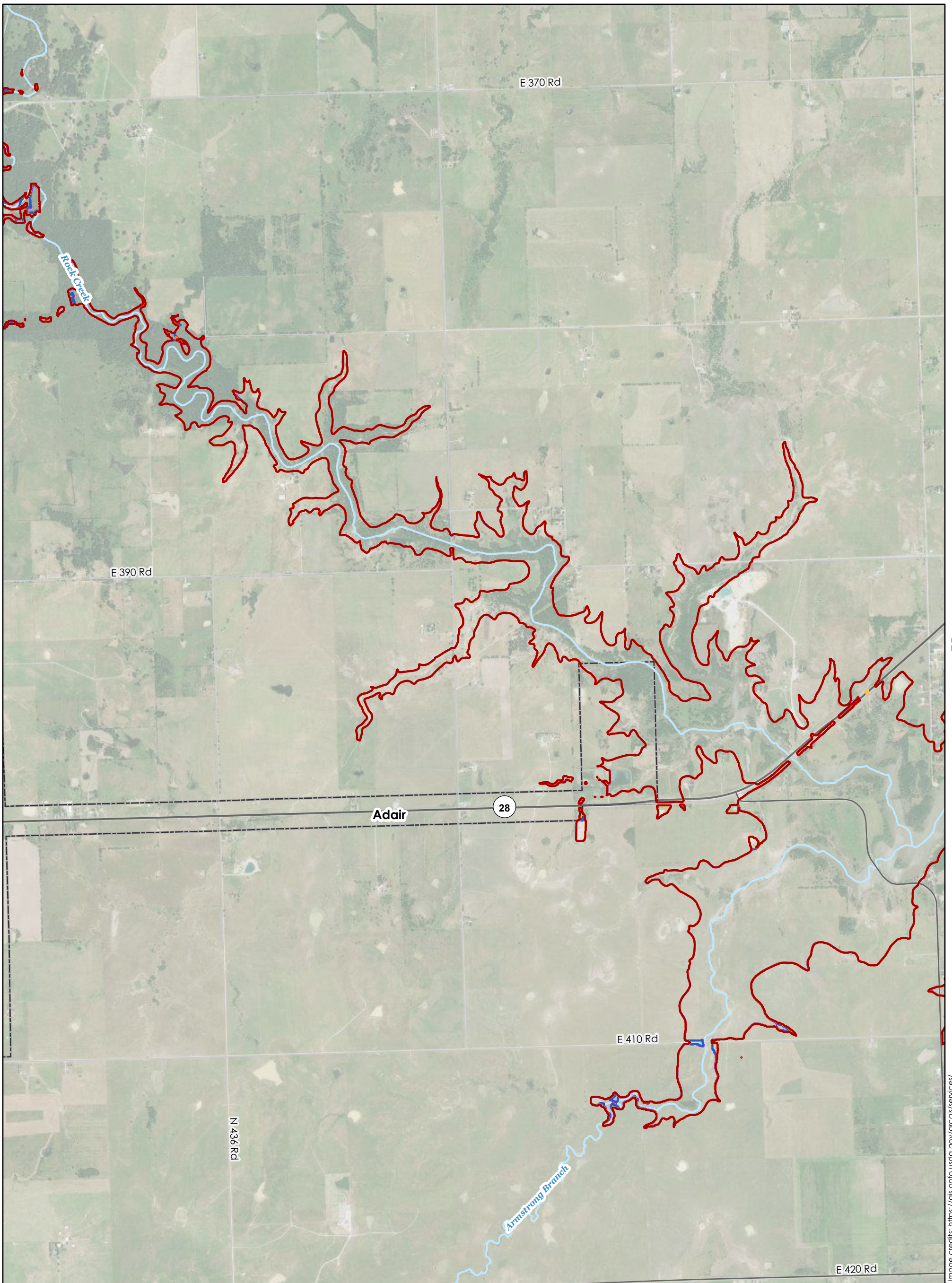
PENSACOLA DAM DOWNSTREAM HYDRAULIC MODEL

GRAND RIVER DAM AUTHORITY

MAP: A1

CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

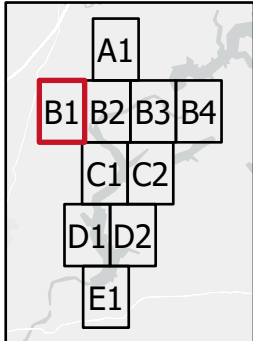
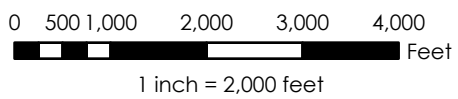


B2

Image credits: https://gis.cplio.usda.gov/orc/gis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

C1

100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION	
█ 757.0 ft PD	█ 743.5 ft PD
█ 753.0 ft PD	█ 743.0 ft PD
█ 749.0 ft PD	█ 742.5 ft PD
█ 745.0 ft PD	█ 742.0 ft PD
█ 744.5 ft PD	█ 734.0 ft PD
█ 744.0 ft PD	

Legend

ROAD CLASS

— Interstate	— Stream
— State Highway	█ Project
— US Highway	█ County
— Major Collector	█ Municipal
— Local Road	

BOUNDARY TYPE	
— Stream	█ Project
█ County	█ Municipal

MAP AND LEGEND NOTES

1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM DOWNSTREAM HYDRAULIC MODEL

GRAND RIVER DAM AUTHORITY

MAP: B1

CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

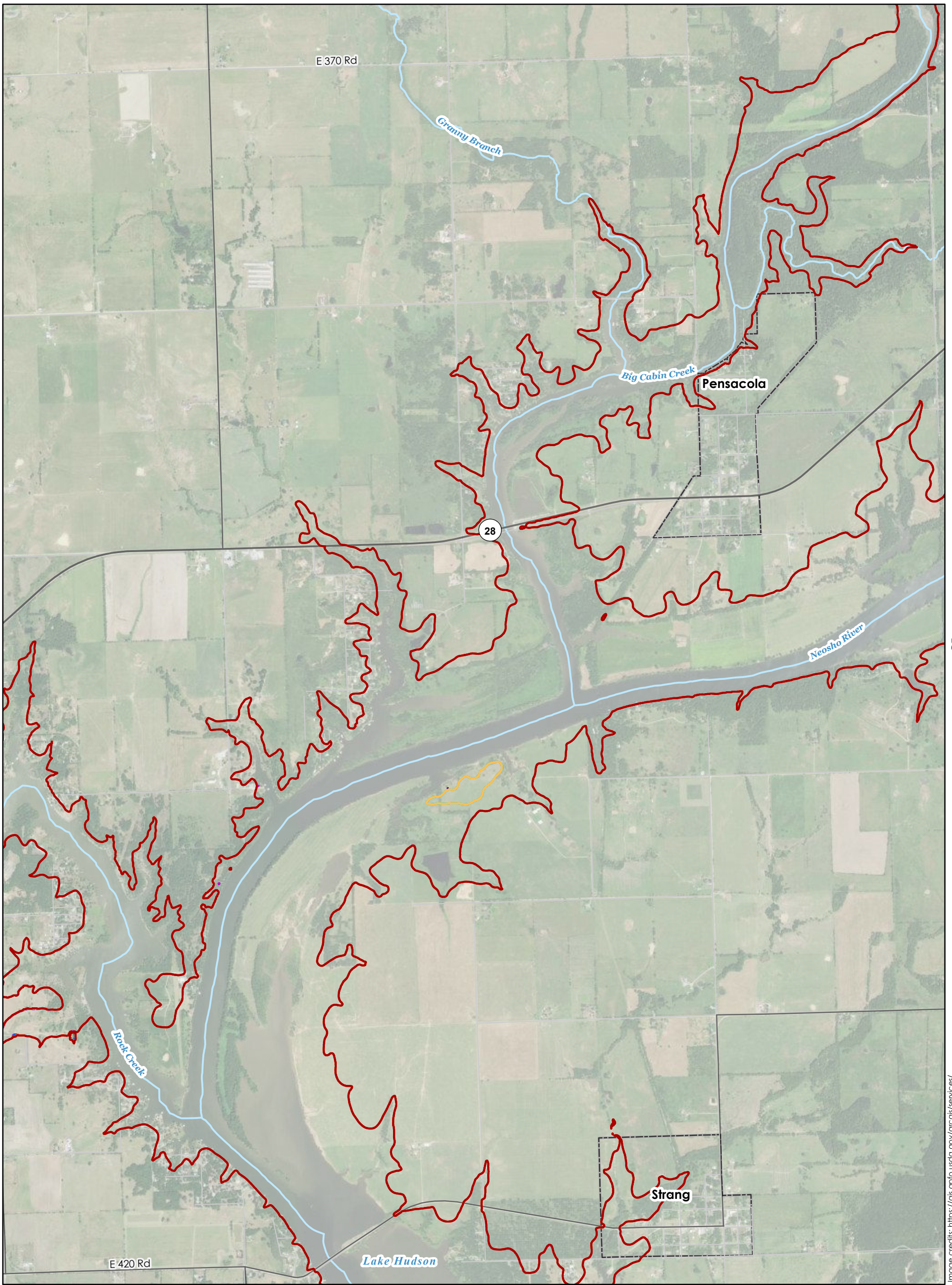
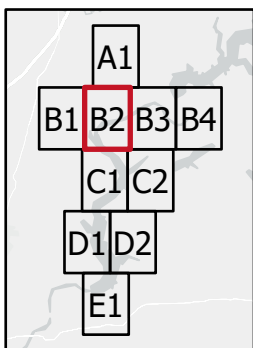
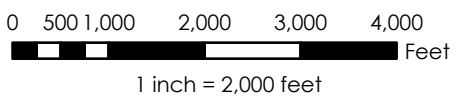


Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION

757.0 ft PD	743.5 ft PD
753.0 ft PD	743.0 ft PD
749.0 ft PD	742.5 ft PD
745.0 ft PD	742.0 ft PD
744.5 ft PD	734.0 ft PD
744.0 ft PD	

Legend

ROAD CLASS

Interstate
State Highway
US Highway
Major Collector
Local Road

BOUNDARY TYPE

Stream
Project
County
Municipal

MAP AND LEGEND NOTES

1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

**PENSACOLA DAM
DOWNSTREAM HYDRAULIC MODEL**

GRAND RIVER DAM AUTHORITY

MAP: B2

CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

A1

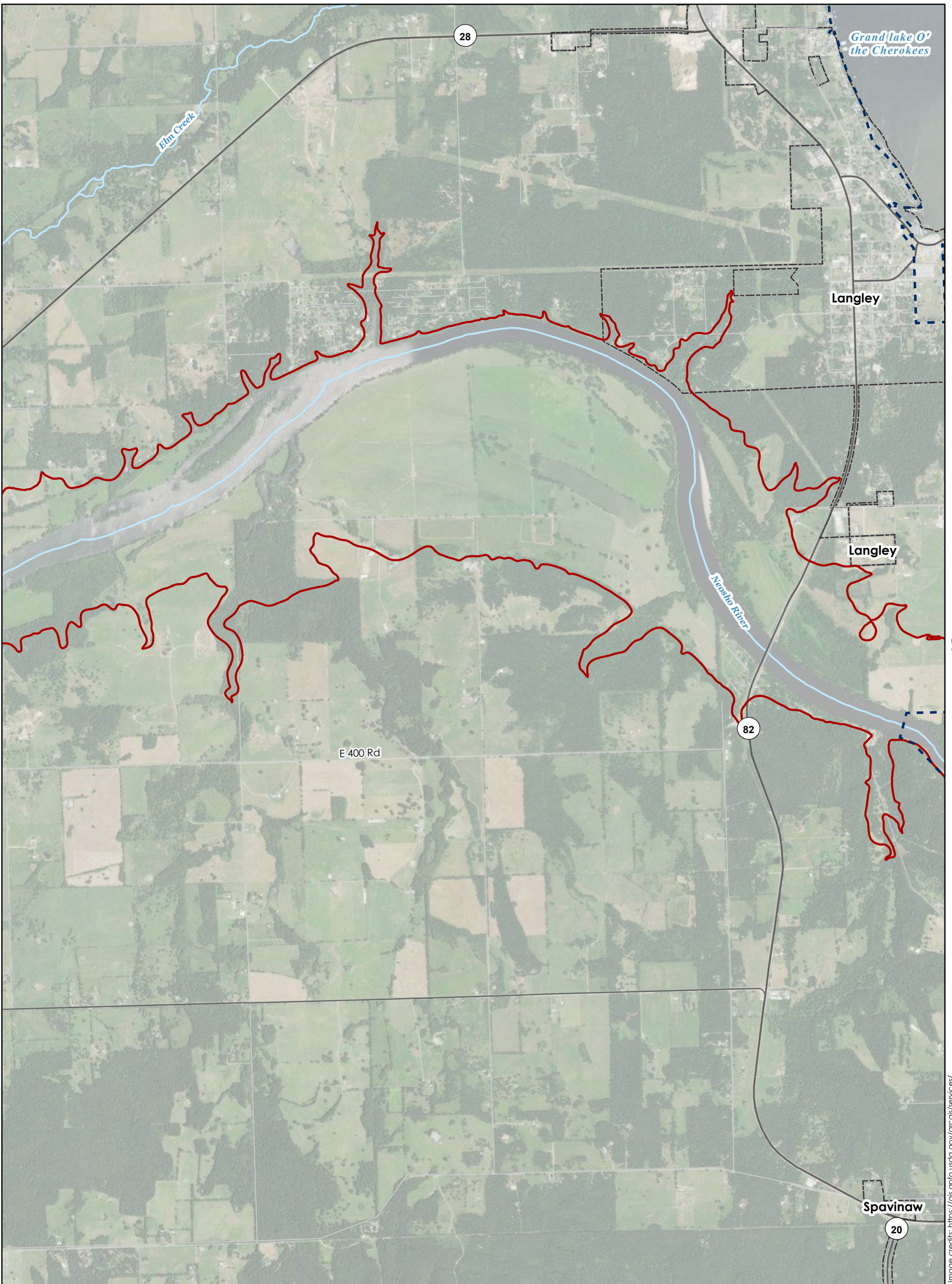
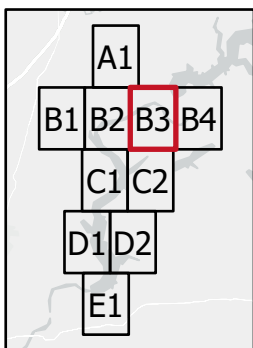
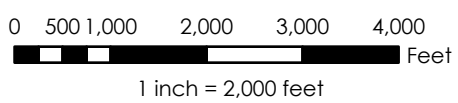


Image credits: https://gis.cplio.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

C2

C2

100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION	
757.0 ft PD	743.5 ft PD
753.0 ft PD	743.0 ft PD
749.0 ft PD	742.5 ft PD
745.0 ft PD	742.0 ft PD
744.5 ft PD	734.0 ft PD
744.0 ft PD	

Legend

ROAD CLASS

- Interstate
- State Highway
- US Highway
- Major Collector
- Local Road

BOUNDARY TYPE

- Stream
- Project
- County
- Municipal

MAP AND LEGEND NOTES

- For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
- See Overview Map for notes on data sources.

PENSACOLA DAM DOWNSTREAM HYDRAULIC MODEL

GRAND RIVER DAM AUTHORITY

MAP: B3

CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

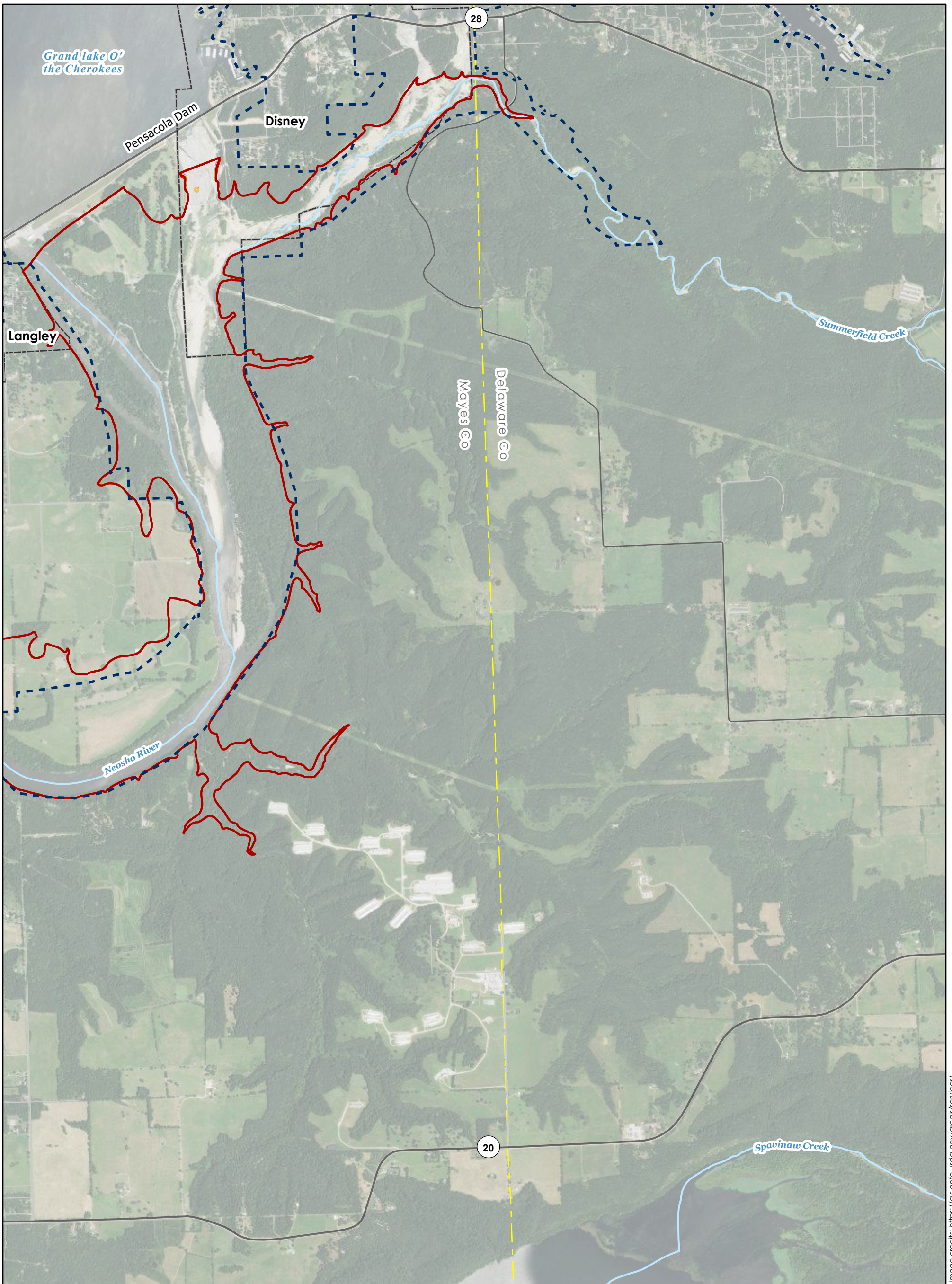


Image credits: https://glt.cplio.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

100-YEAR INUNDATION SCENARIO

NORTH

0 500 1,000 2,000 3,000 4,000 Feet

1 inch = 2,000 feet

100-YEAR MAX INUNDATION		ROAD CLASS		BOUNDARY TYPE	
— 757.0 ft PD	— 743.5 ft PD	— Interstate	— Stream	- - - Project	- - - County
— 753.0 ft PD	— 743.0 ft PD	— State Highway	— US Highway	— Major Collector	— Municipal
— 749.0 ft PD	— 742.5 ft PD	— US Highway	— Major Collector	— Local Road	
— 745.0 ft PD	— 742.0 ft PD				
— 744.5 ft PD	— 734.0 ft PD				
— 744.0 ft PD					

MAP AND LEGEND NOTES

- For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
- See Overview Map for notes on data sources.

PENSACOLA DAM

DOWNSTREAM HYDRAULIC MODEL

GRAND RIVER DAM AUTHORITY

MAP: B4

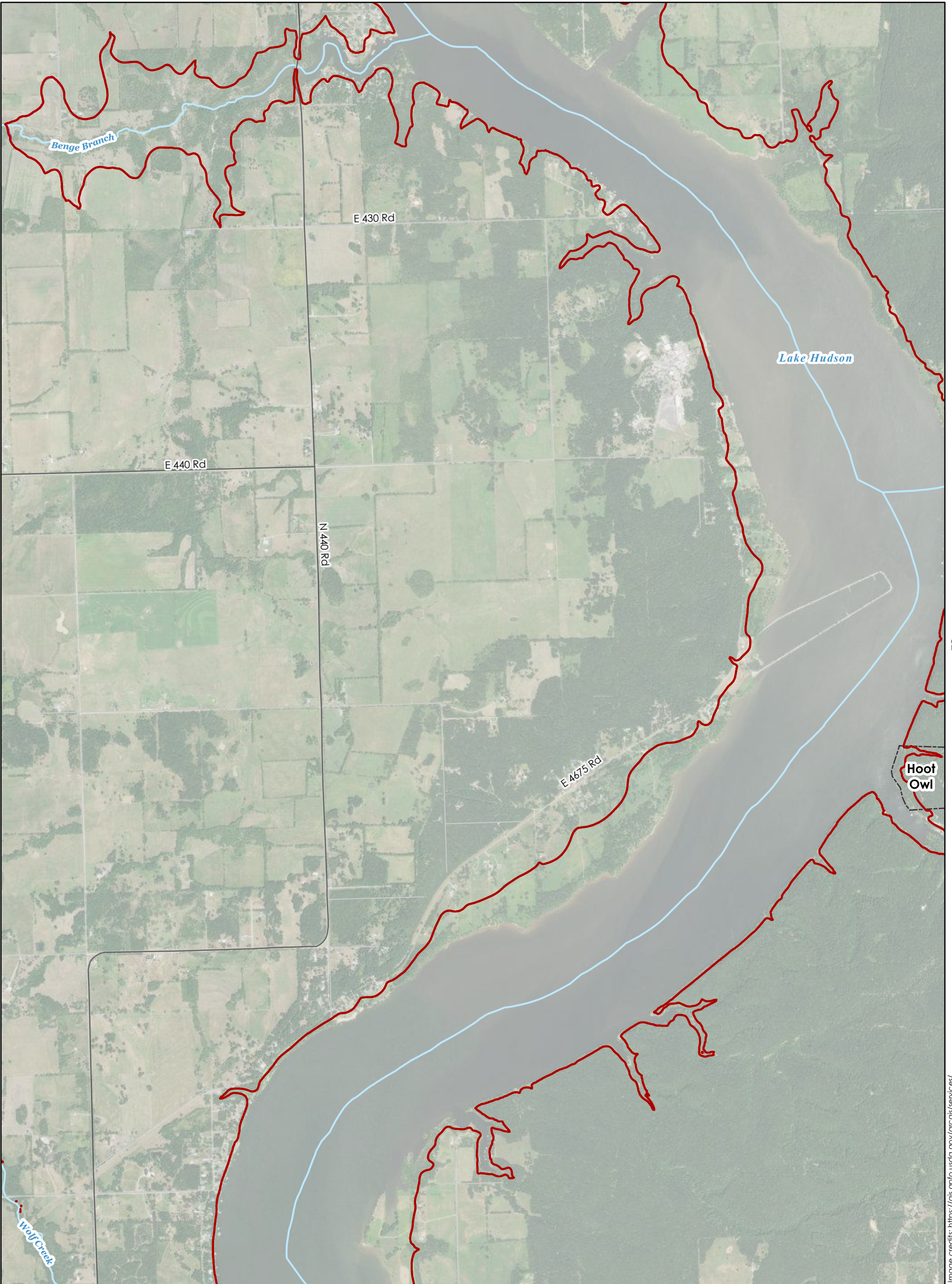
CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

B1

B2

B2

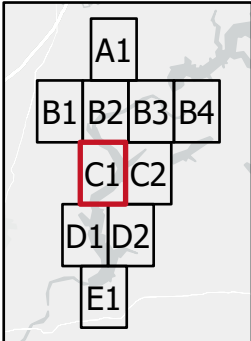
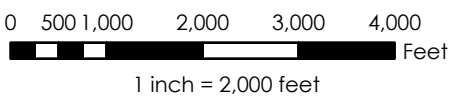


D1

D1

D2

100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION

757.0 ft PD	743.5 ft PD
753.0 ft PD	743.0 ft PD
749.0 ft PD	742.5 ft PD
745.0 ft PD	742.0 ft PD
744.5 ft PD	734.0 ft PD
744.0 ft PD	

Legend

ROAD CLASS

Interstate
State Highway
US Highway
Major Collector
Local Road

BOUNDARY TYPE

Stream
Project
County
Municipal

MAP AND LEGEND NOTES

1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

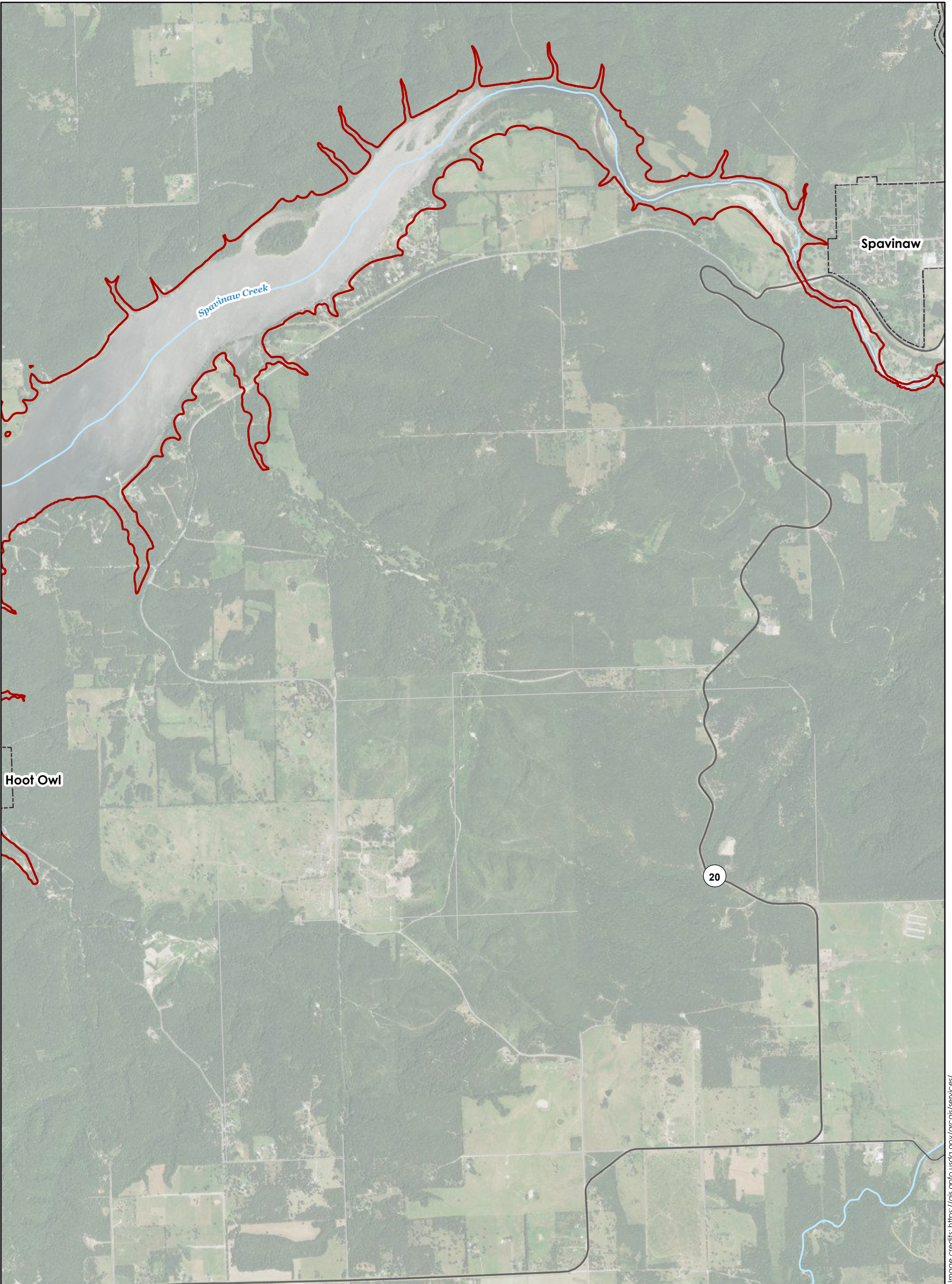
**PENSACOLA DAM
DOWNSTREAM HYDRAULIC MODEL**

GRAND RIVER DAM AUTHORITY

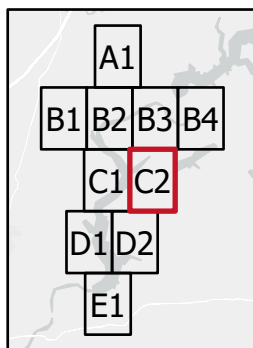
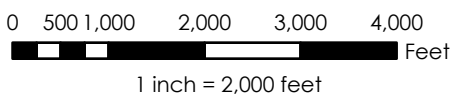
MAP: C1

CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION

757.0 ft PD	743.5 ft PD
753.0 ft PD	743.0 ft PD
749.0 ft PD	742.5 ft PD
745.0 ft PD	742.0 ft PD
744.5 ft PD	734.0 ft PD
744.0 ft PD	

Legend

ROAD CLASS

Interstate
State Highway
US Highway
Major Collector
Local Road

BOUNDARY TYPE

Stream
Project
County
Municipal

MAP AND LEGEND NOTES

1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

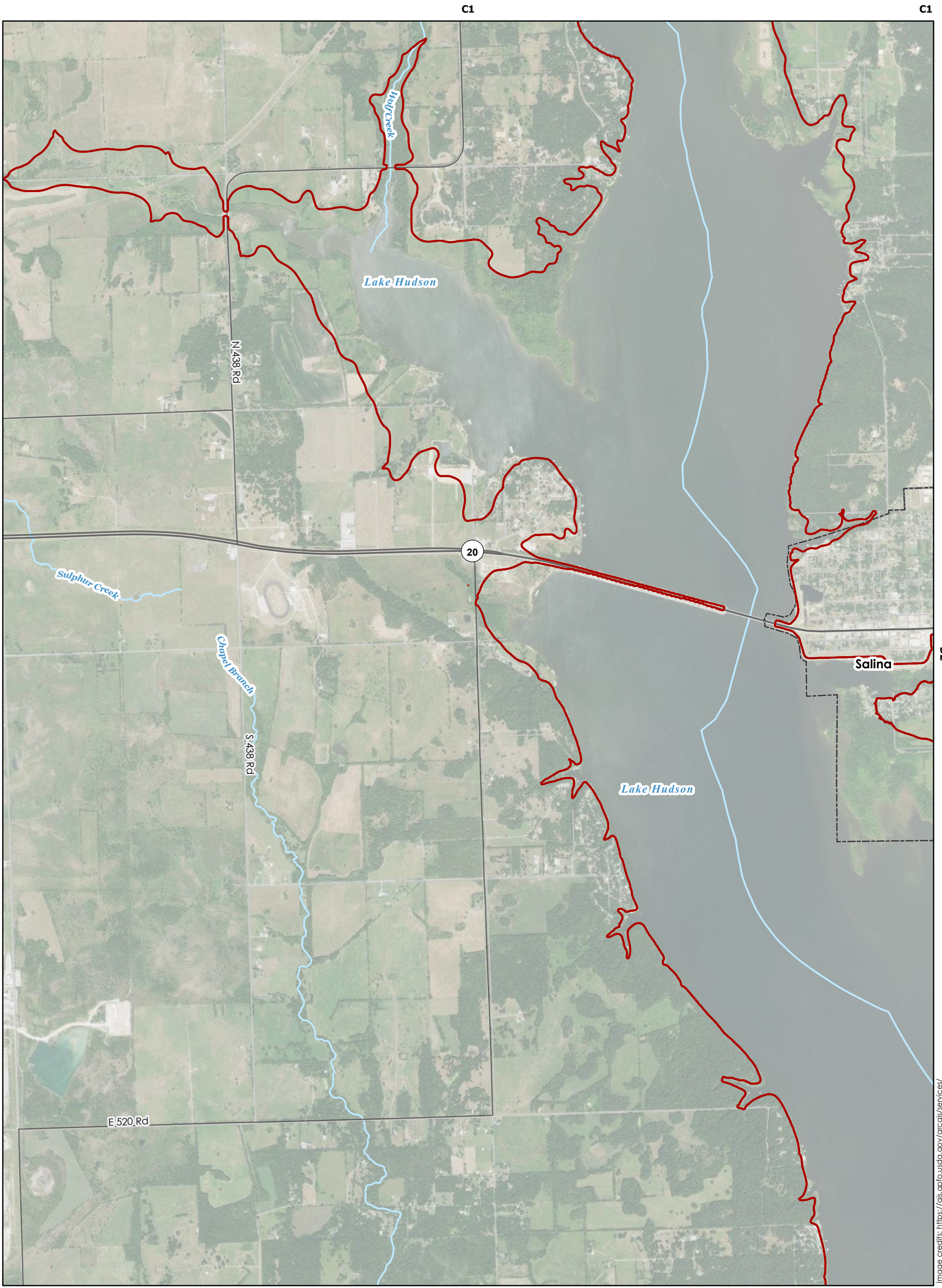
**PENSACOLA DAM
DOWNSTREAM HYDRAULIC MODEL**

GRAND RIVER DAM AUTHORITY

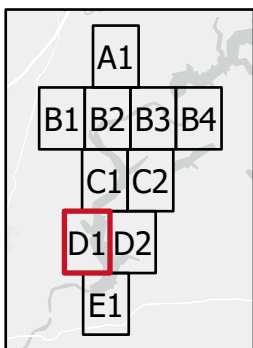
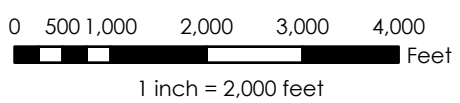
MAP: C2

CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION

757.0 ft PD	743.5 ft PD
753.0 ft PD	743.0 ft PD
749.0 ft PD	742.5 ft PD
745.0 ft PD	742.0 ft PD
744.5 ft PD	734.0 ft PD
744.0 ft PD	

Legend

ROAD CLASS

Interstate
State Highway
US Highway
Major Collector
Local Road

BOUNDARY TYPE

Stream
Project
County
Municipal

MAP AND LEGEND NOTES

1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

**PENSACOLA DAM
DOWNSTREAM HYDRAULIC MODEL**
GRAND RIVER DAM AUTHORITY

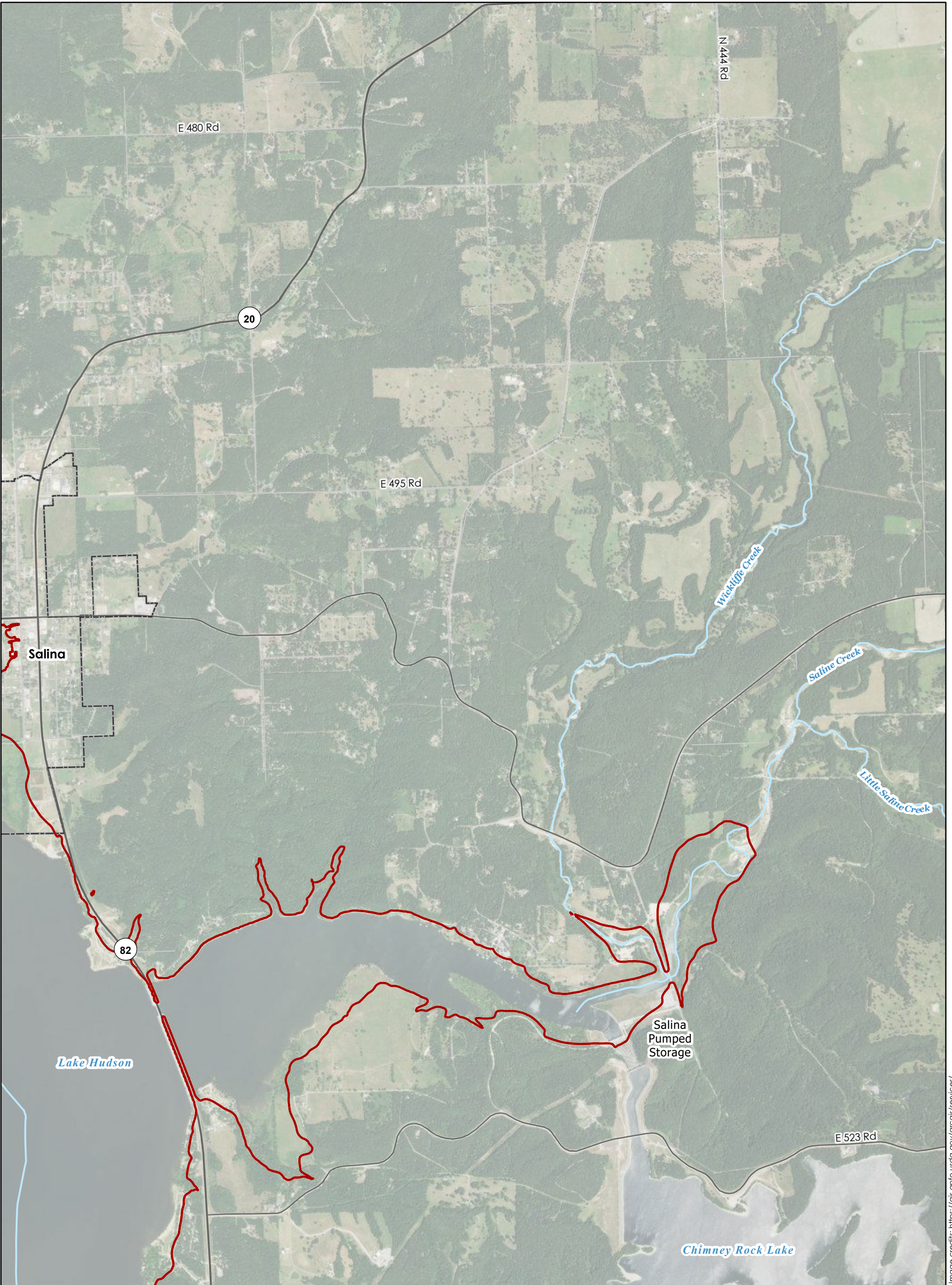
MAP: D1

CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA
FERC No. 1494
September 2022

C1

C2

C2



D1

Salina

82

Lake Hudson

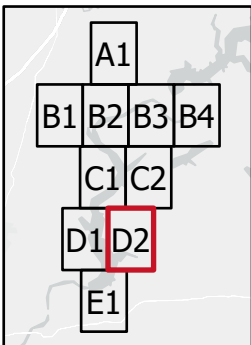
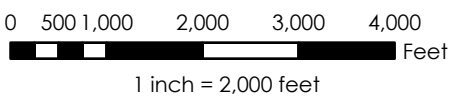
Salina Pumped Storage

Chimney Rock Lake

E 523 Rd

E1

100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION

757.0 ft PD	743.5 ft PD
753.0 ft PD	743.0 ft PD
749.0 ft PD	742.5 ft PD
745.0 ft PD	742.0 ft PD
744.5 ft PD	734.0 ft PD
744.0 ft PD	

Legend

ROAD CLASS

- Interstate
- State Highway
- US Highway
- Major Collector
- Local Road

BOUNDARY TYPE

- Stream
- Project
- County
- Municipal

MAP AND LEGEND NOTES

1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

**PENSACOLA DAM
DOWNSTREAM HYDRAULIC MODEL**

GRAND RIVER DAM AUTHORITY

MAP: D2

CRAIG, DELAWARE, AND MAYES
COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

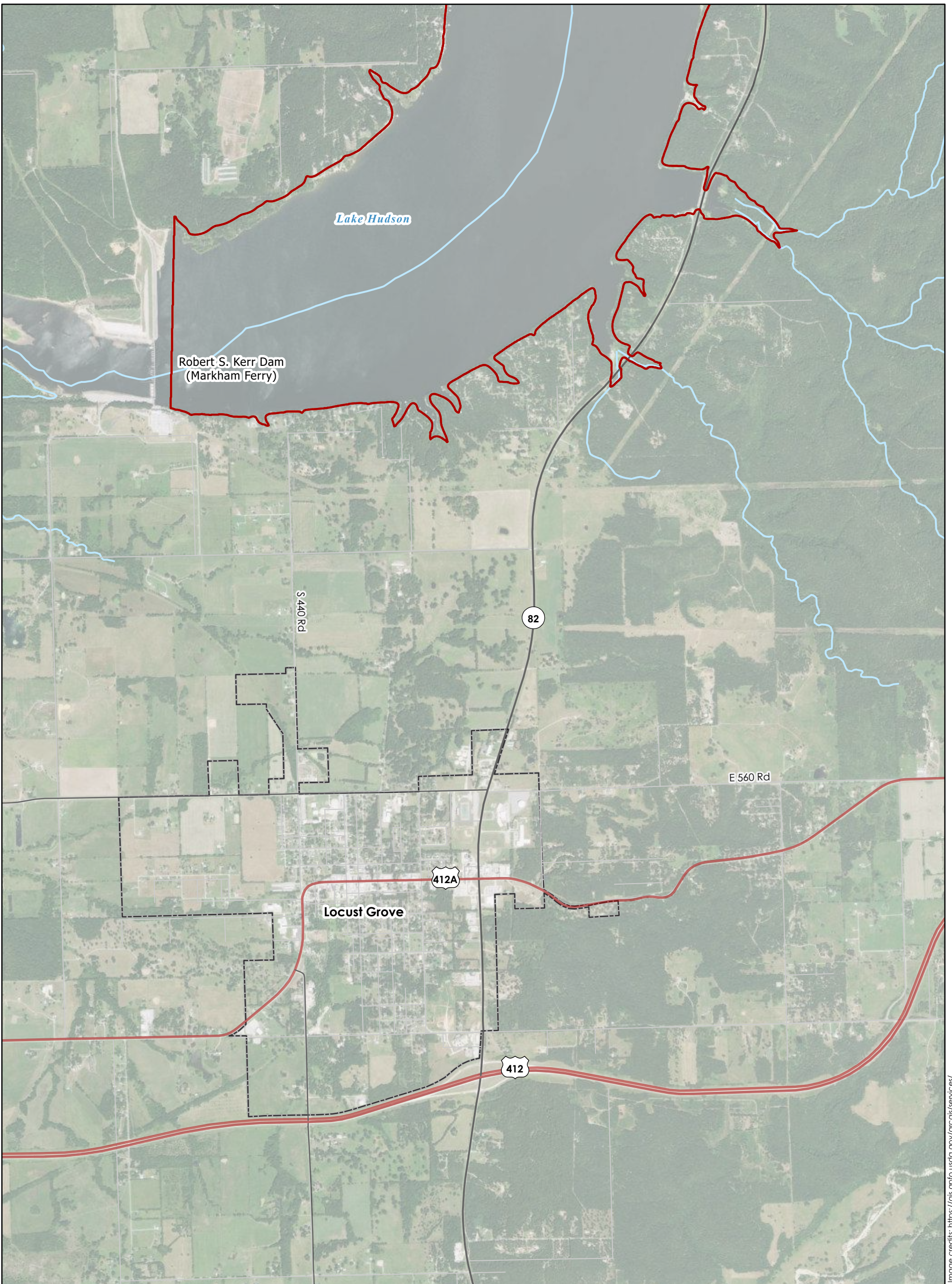
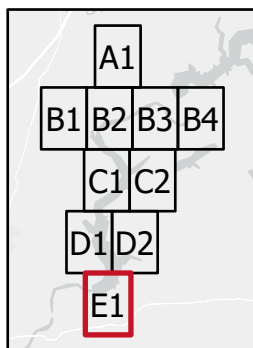
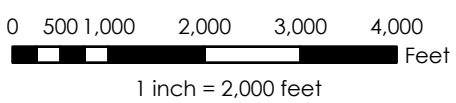


Image credits: https://gis.cplio.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION

757.0 ft PD	743.5 ft PD
753.0 ft PD	743.0 ft PD
749.0 ft PD	742.5 ft PD
745.0 ft PD	742.0 ft PD
744.5 ft PD	734.0 ft PD
744.0 ft PD	

Legend

ROAD CLASS

- Interstate
- State Highway
- US Highway
- Major Collector
- Local Road

BOUNDARY TYPE

- Stream
- Project
- County
- Municipal

MAP AND LEGEND NOTES

1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM DOWNSTREAM HYDRAULIC MODEL

GRAND RIVER DAM AUTHORITY

MAP: E1

CRAIG, DELAWARE, AND MAYES COUNTIES, OKLAHOMA

FERC No. 1494
September 2022