APPENDIX E.3:
JULY 2007 (4 YEAR) EVENT INUNDATION MAPS

Downstream Model Results Overview Map

Pensacola Dam

GRAND RIVER DAM AUTHORITY

Date: September 2022

Overview Map Legend

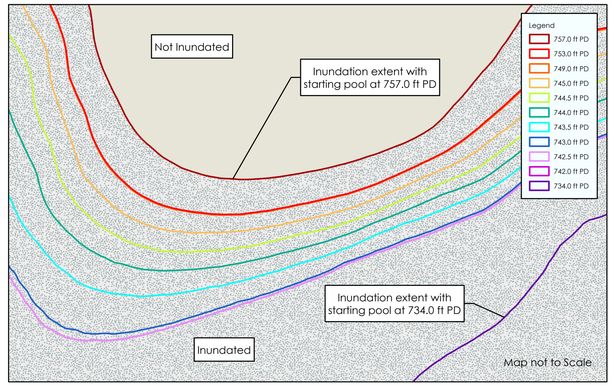
- 1:24,000-scale Map Sheet
- County Boundary
- Municipality
- Unincorporated

Road Class

- Interstate
- US Highway

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.



0 0.75 1.5 3 4.5 6 Miles

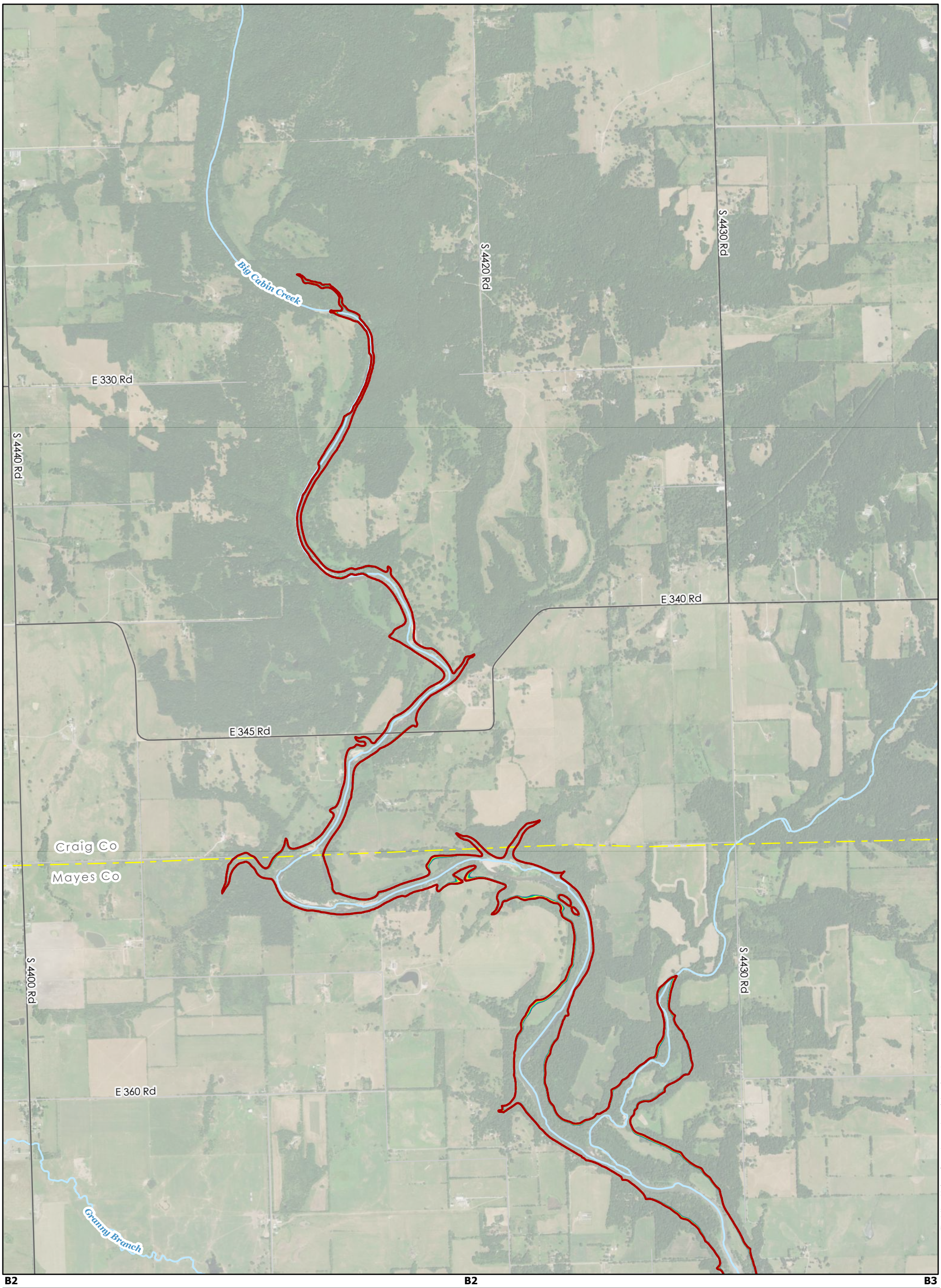
NORTH

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/ogi/search.aspx).

Map Source: Esri, NASA, NGA, USGS, Missouri Dept. of Conservation, Missouri DNR, Texas Parks & Wildlife, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

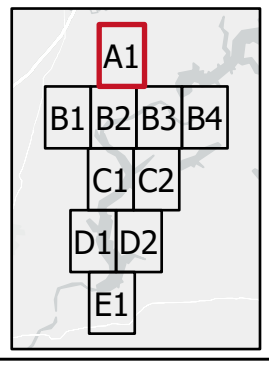


JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

BOUNDARY TYPE

- 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

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

E 370 Rd

Rock Creek

E 390 Rd

Adair

28

E 410 Rd

N 436 Rd

Armstrong Branch

E 420 Rd

B2

C1

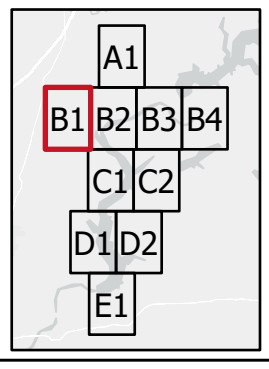
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

BOUNDARY TYPE

- 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

A1 A1

B1 B3

C1 C1 C2

E 370 Rd
Granny Branch
Big Cabin Creek
Pensacola
28
Neosho River
Rock Creek
Strang
Lake Hudson
E 420 Rd

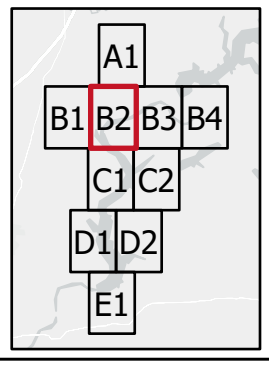
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

BOUNDARY TYPE

- 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

B2

B4

C2

C2

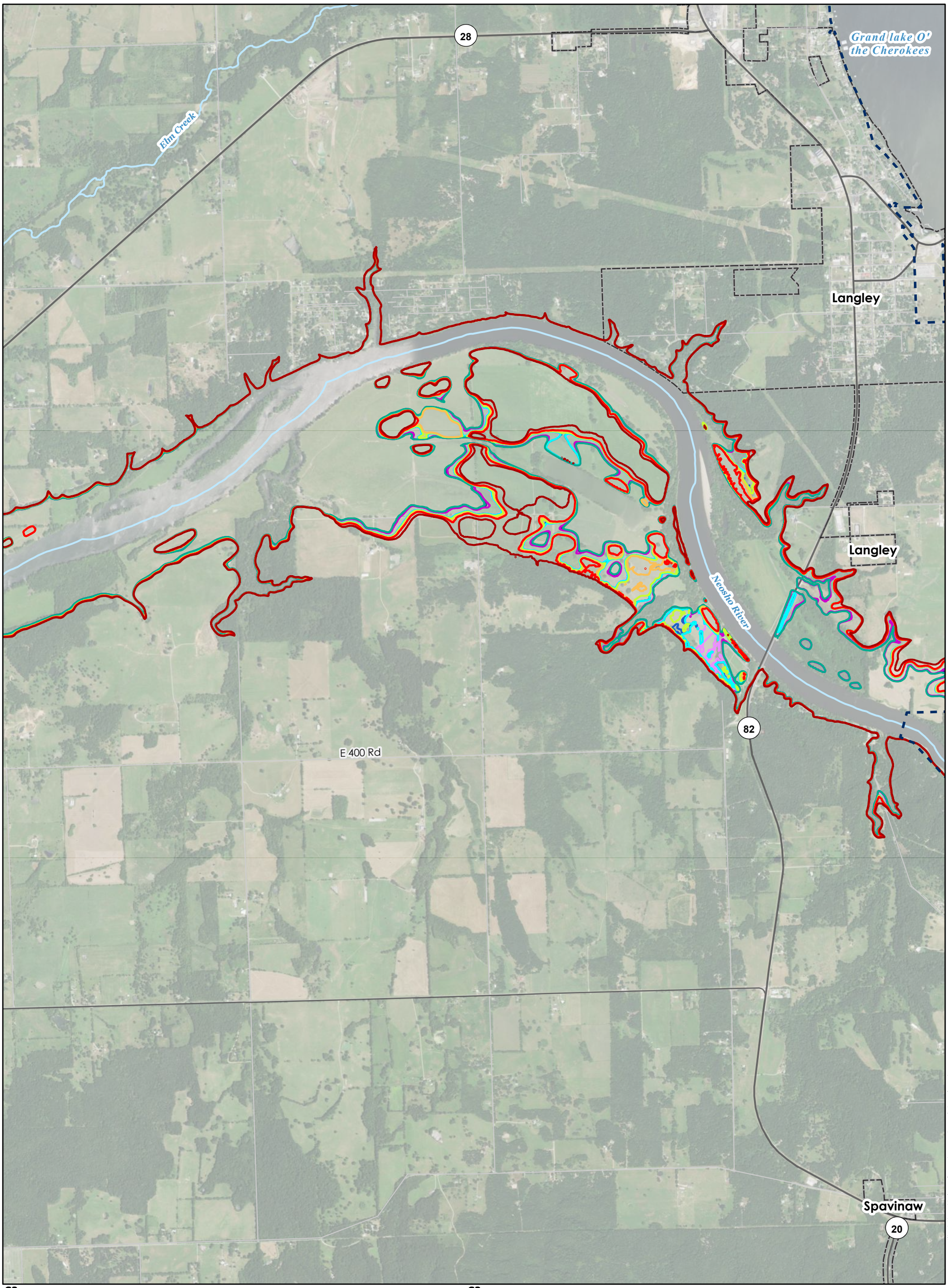


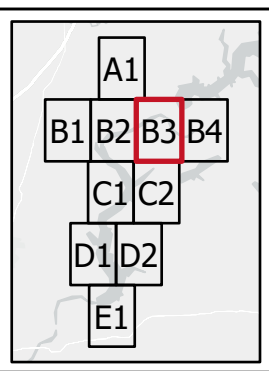
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

BOUNDARY TYPE

- 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: B3

CRAIG, DELAWARE, AND MAYES COUNTIES, OKLAHOMA

FERC No. 1494

September 2022

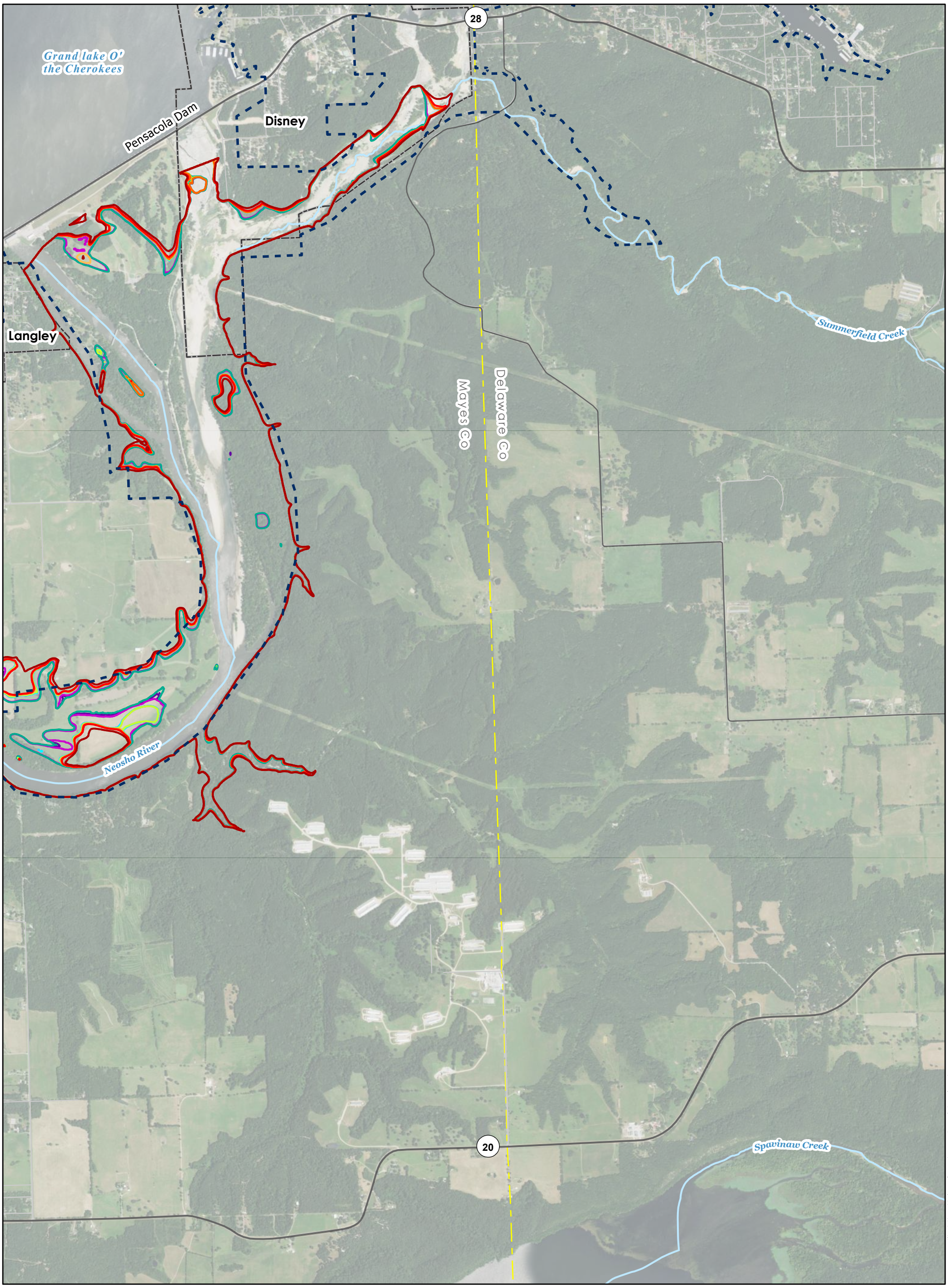


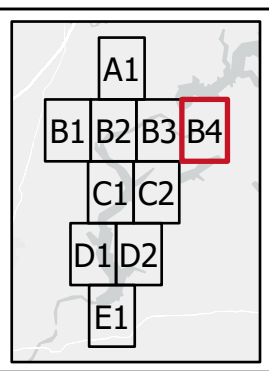
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

- Stream

BOUNDARY TYPE

- 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

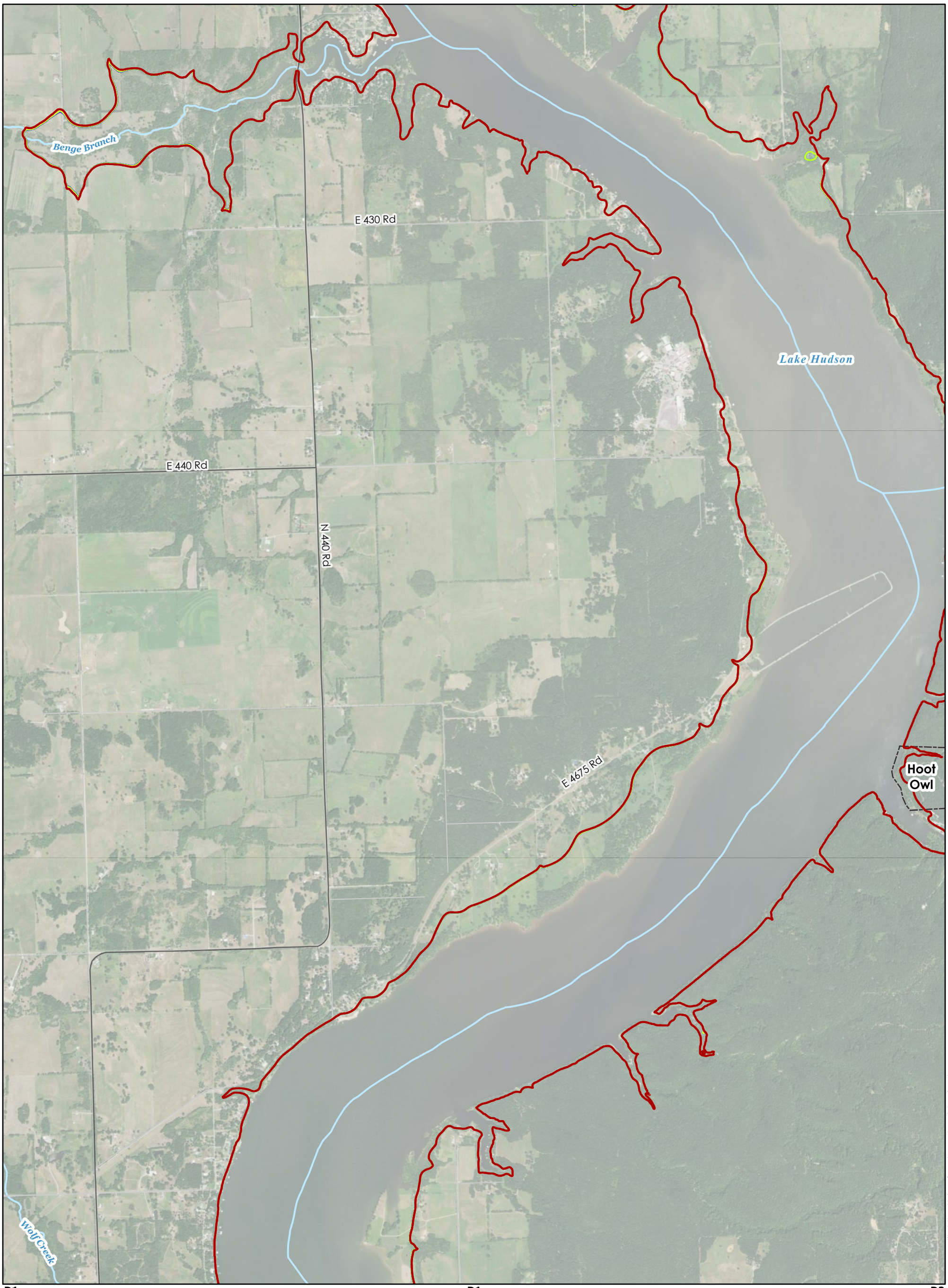
MAP: B4

CRAIG, DELAWARE, AND MAYES COUNTIES, OKLAHOMA

FERC No. 1494

September 2022

B1 B2 B2



C2

D1 D1 D2

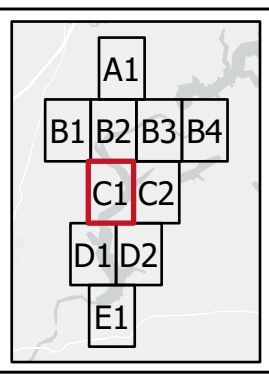
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

- Stream

BOUNDARY TYPE

- 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

B2 B3 B3

C1

Spavinaw Creek

Spavinaw

Hoot Owl

20

D2 D2

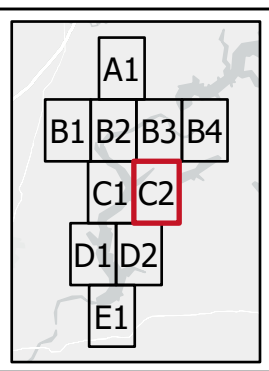
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

- Stream

BOUNDARY TYPE

- 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.
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PENSACOLA DAM
DOWNSTREAM HYDRAULIC MODEL

GRAND RIVER DAM AUTHORITY

MAP: C2

CRAIG, DELAWARE, AND MAYES COUNTIES, OKLAHOMA

FERC No. 1494

September 2022

C1 C1

Wolf Creek
Lake Hudson
N 438 Rd
20
Sulphur Creek
Chapel Branch
S 438 Rd
Lake Hudson
Salina
D2
E 520 Rd

E1 E1

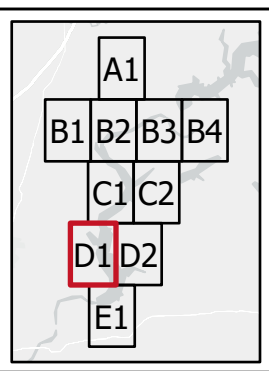
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

- Stream

BOUNDARY TYPE

- 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.
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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

E1

E 480 Rd

N 444 Rd

20

E 495 Rd

Salina

Wickliffe Creek

Saline Creek

Little Saline Creek

82

Salina Pumped Storage

Lake Hudson

E 523 Rd

Chimney Rock Lake

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

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet

A1 B1 B2 B3 B4 C1 C2 D1 D2 E1

Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

BOUNDARY TYPE

- Project
- County
- Municipal

- Stream

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

D1 D1 D2

Lake Hudson

Robert S. Kerr Dam
(Markham Ferry)

S 440 Rd

82

E 560 Rd

412A

Locust Grove

412

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

JULY 2007 (4 YEAR) INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet

A1 B1 B2 B3 B4 C1 C2 D1 D2 E1

Legend

JUL 2007 MAX INUNDATION

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

ROAD CLASS

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

BOUNDARY TYPE

- 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