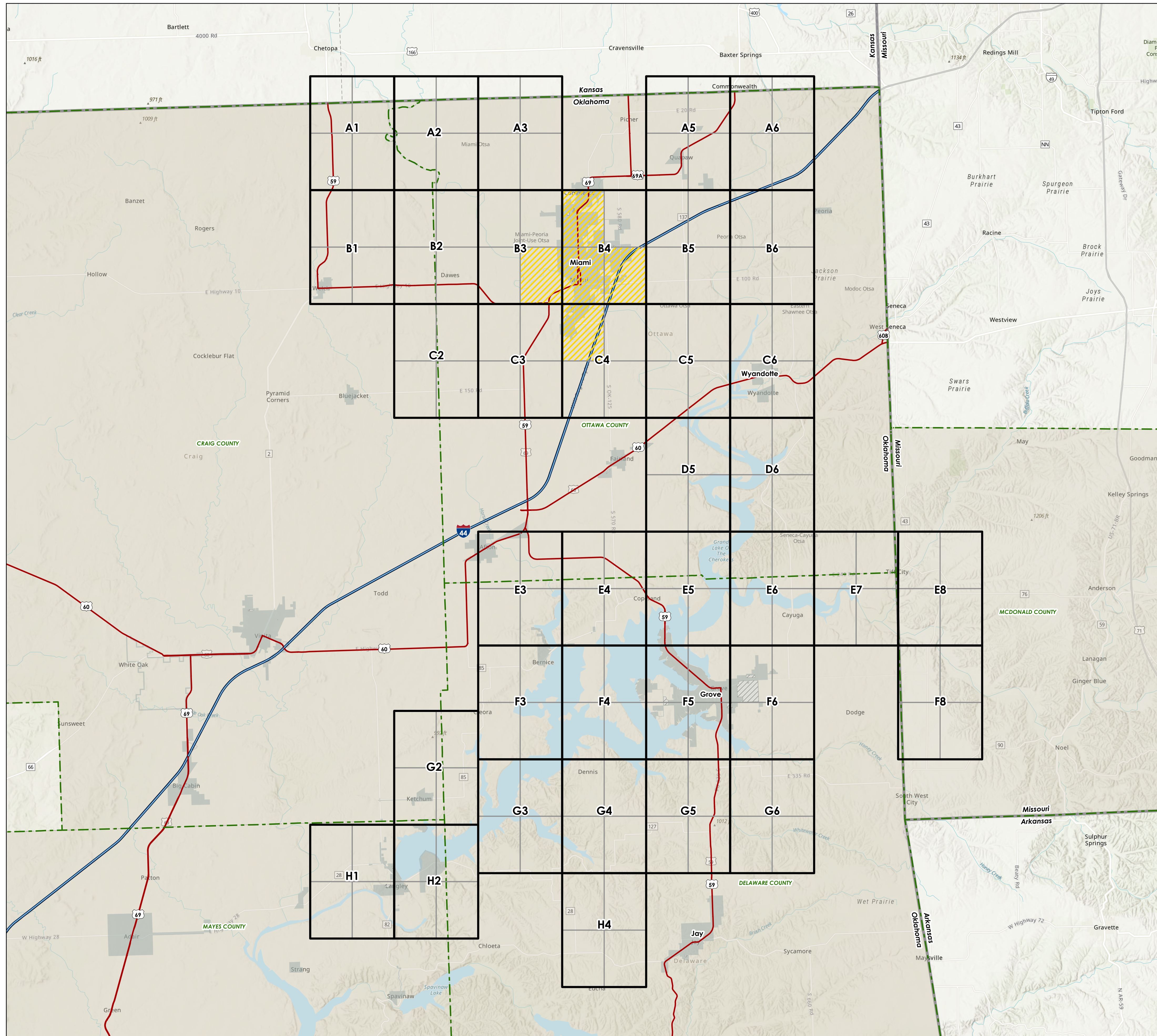


Upstream Model Results and Critical Infrastructure Overview Map

Pensacola Dam
GRAND RIVER DAM AUTHORITY
September 2022



Overview Map Legend

	1:24,000-scale Map Sheet		County Boundary		Road Class
	1:12,000-scale Detail Sheet		Municipality		Interstate
	State Boundary		Unincorporated		US Highway

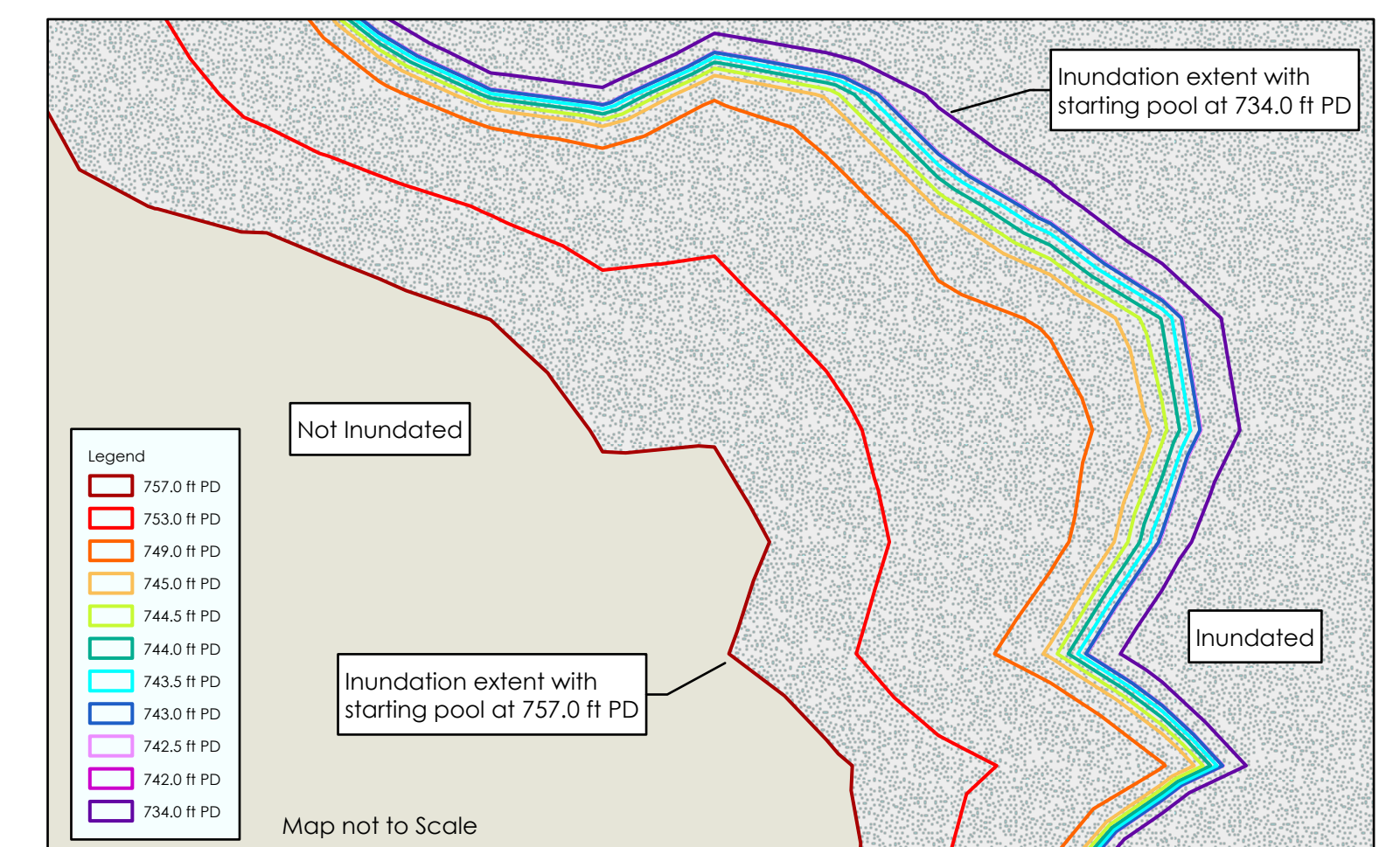
Critical Infrastructure Legend *

	Airport		Hospital		School		Wastewater Treatment
	Bridge, Off-sys		Fire Station		Shelter - Both		Water Treatment
	Bridge, On-sys		Law Enforcement		Shelter - Evac Only		
	Bridge, RR		Church		Power Plant		
	Cell Tower		Park		Substation		

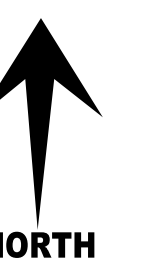
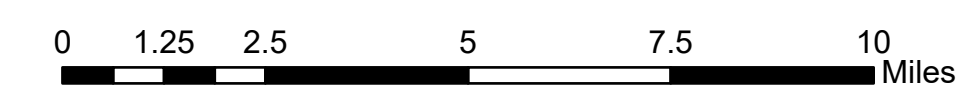
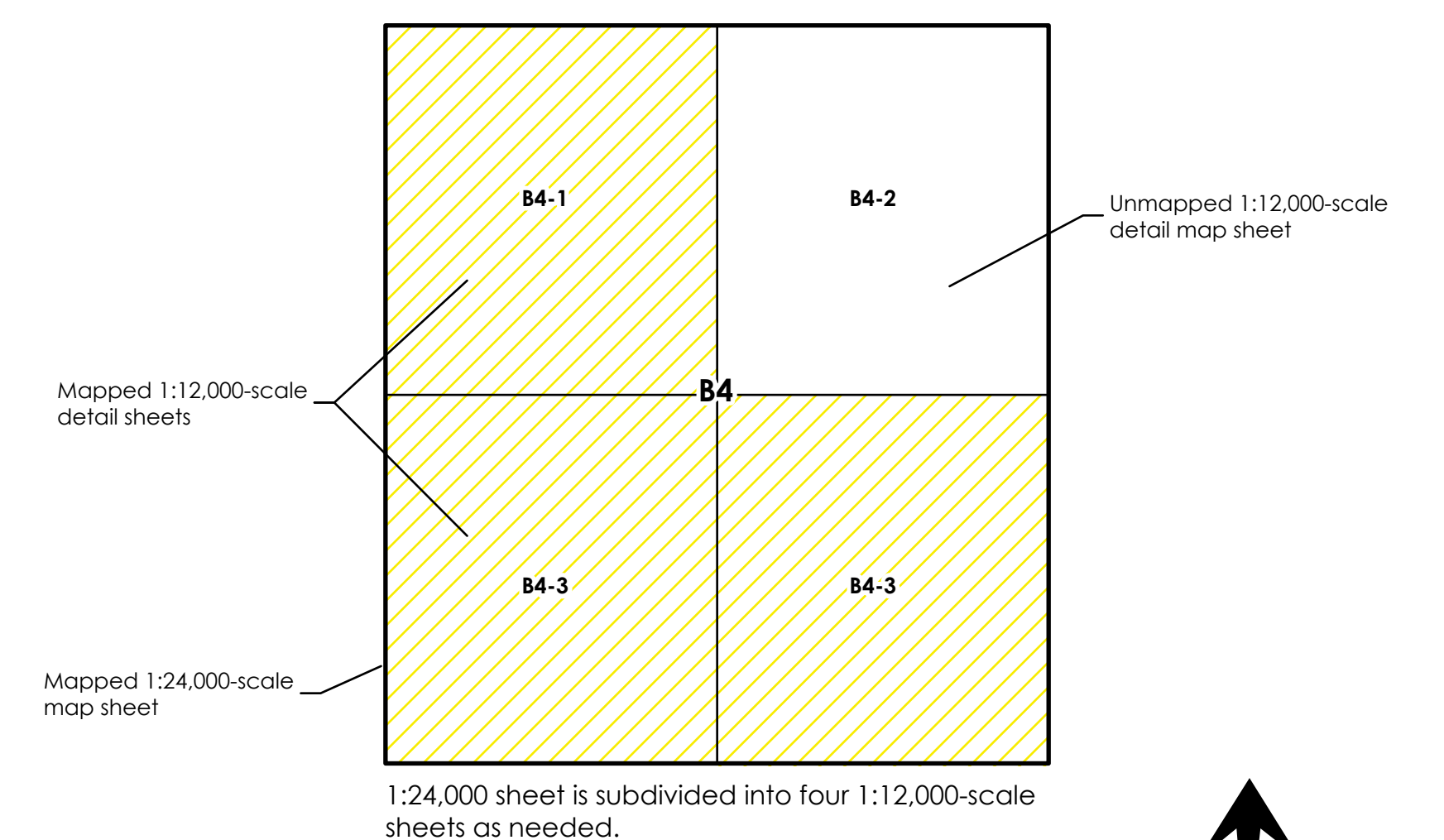
* Due to space constraints on the individual map sheets, the Critical Infrastructure symbols are provided here. Refer to this Overview Map when using the individual map sheets.

Inundation Scenario Mapping

Mapping shows the extent of inundation for the selected hydraulic event under different starting pool elevations: 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.



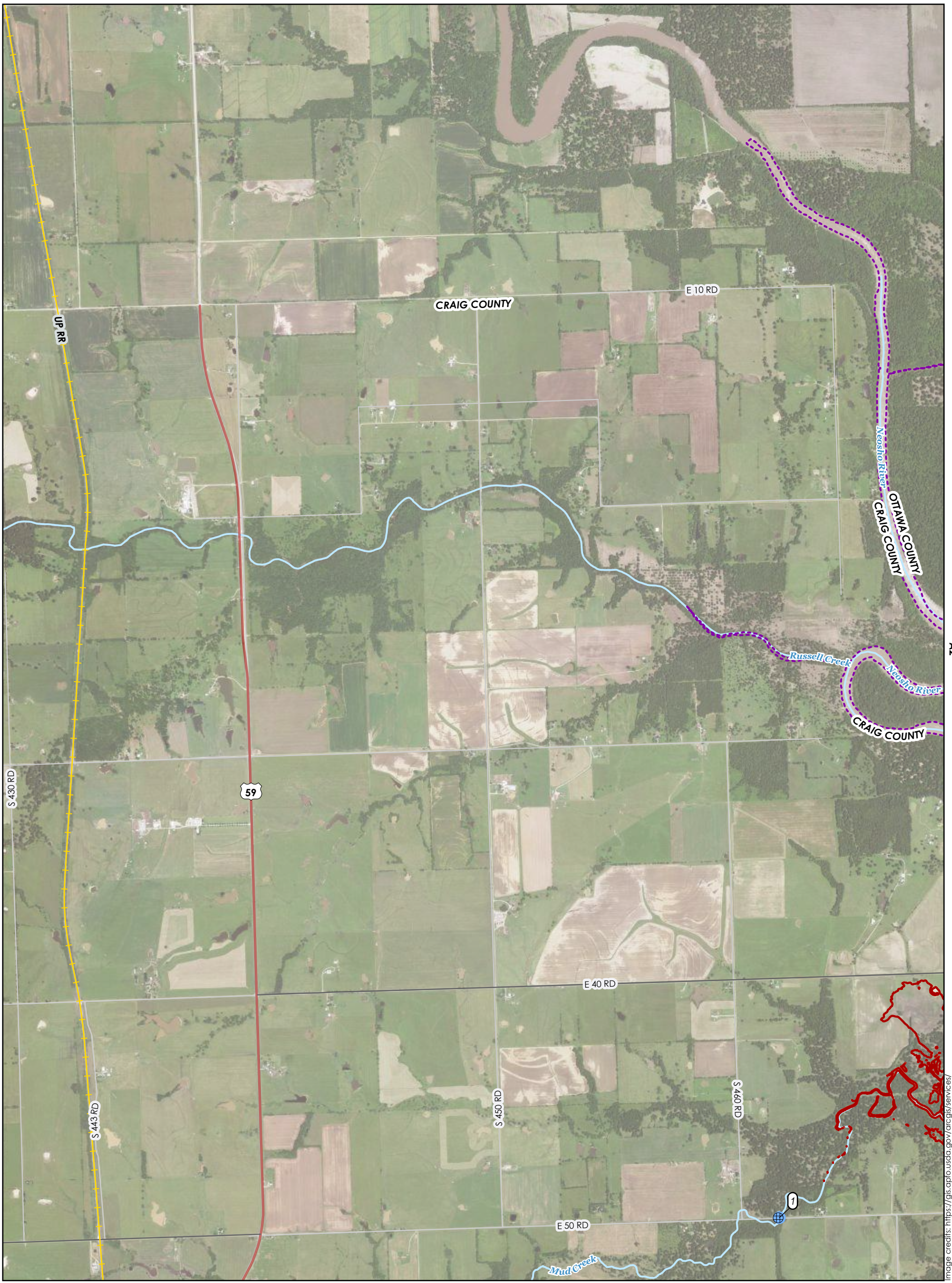
Map Sheet Organization



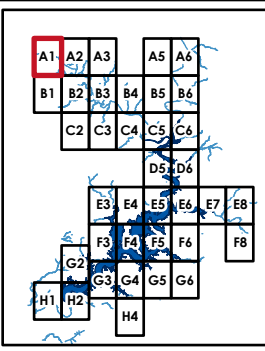
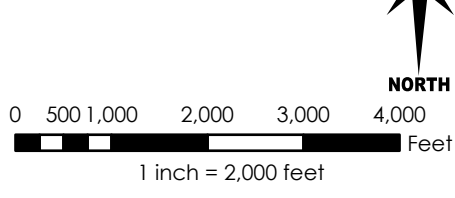
Map Notes

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>).
3. Parcels owned by GRDA are from GIS parcel data provided by County Assessor's Offices (2020).
4. The displayed Flowage Easement is equal to the 760-foot NGVD29 elevation contour, extracted from 2011 Dewberry LIDAR.



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	—	Railroad
State Highway	—	Stream
US Highway	—	Flowage Easements
Major Collector	—	Project Boundary
Local Road	—	GRDA Ownership

MAP AND LEGEND NOTES

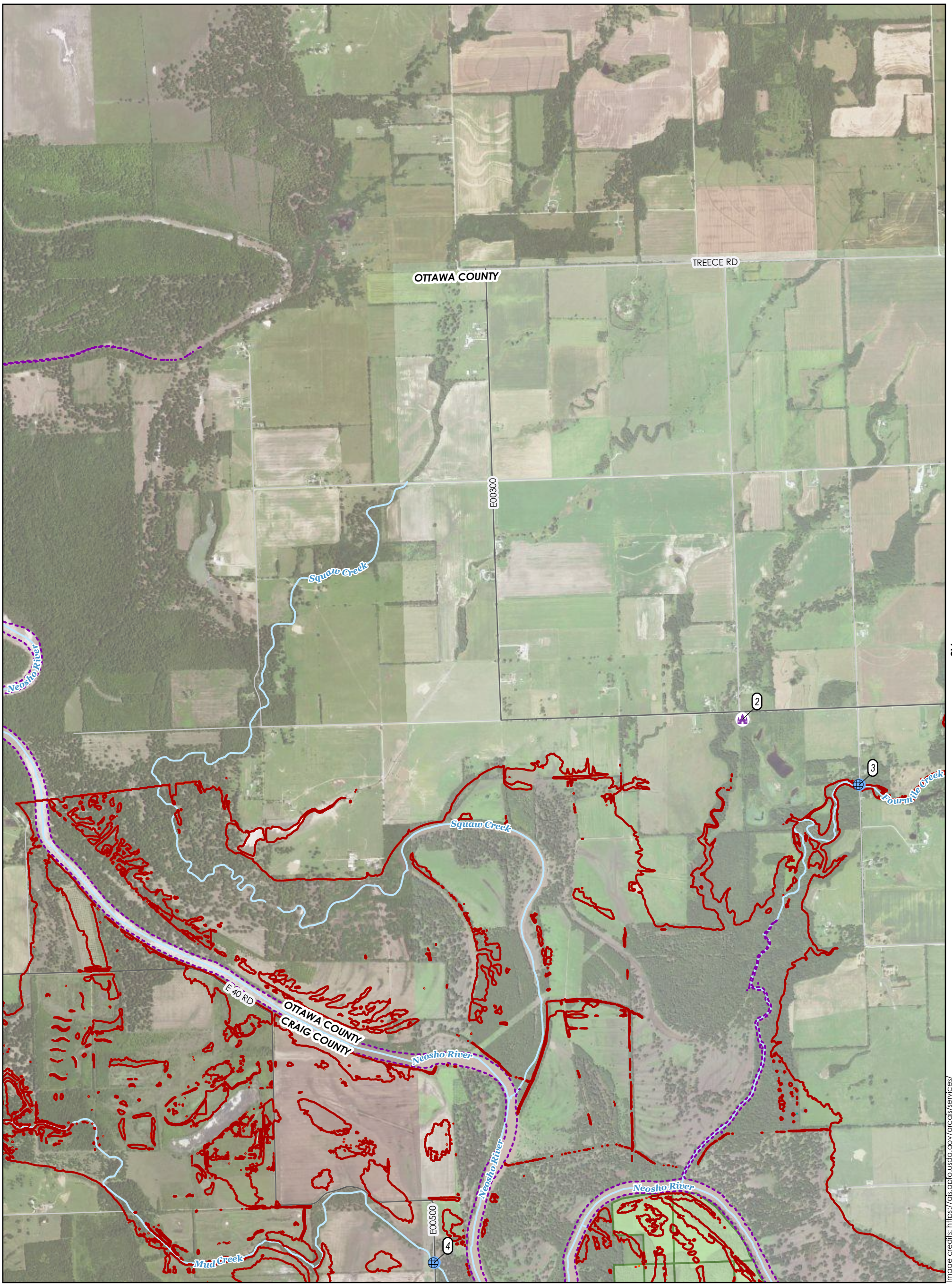
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

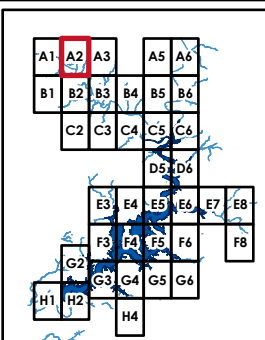
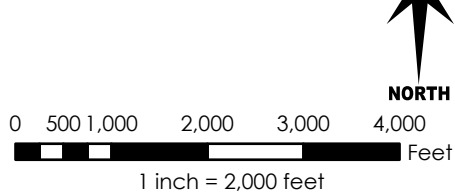
MAP: A1

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

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



**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



DEC 2015 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	—	Railroad
State Highway	—	Stream
US Highway	—	Flowage Easements
Major Collector	—	Project Boundary
Local Road	—	GRDA Ownership

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 and the Critical Infrastructure symbols.

**PENSACOLA DAM
GRAND RIVER DAM AUTHORITY**

MAP: A2

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

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



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH ↑

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

1 inch = 2,000 feet

DEC 2015 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

Interstate	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: A3

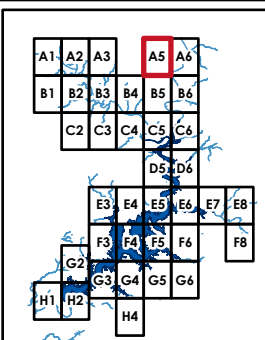
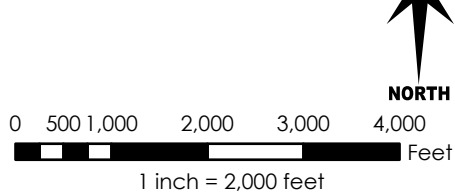
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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

	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

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 and the Critical Infrastructure symbols.

PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

MAP: A5

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022

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

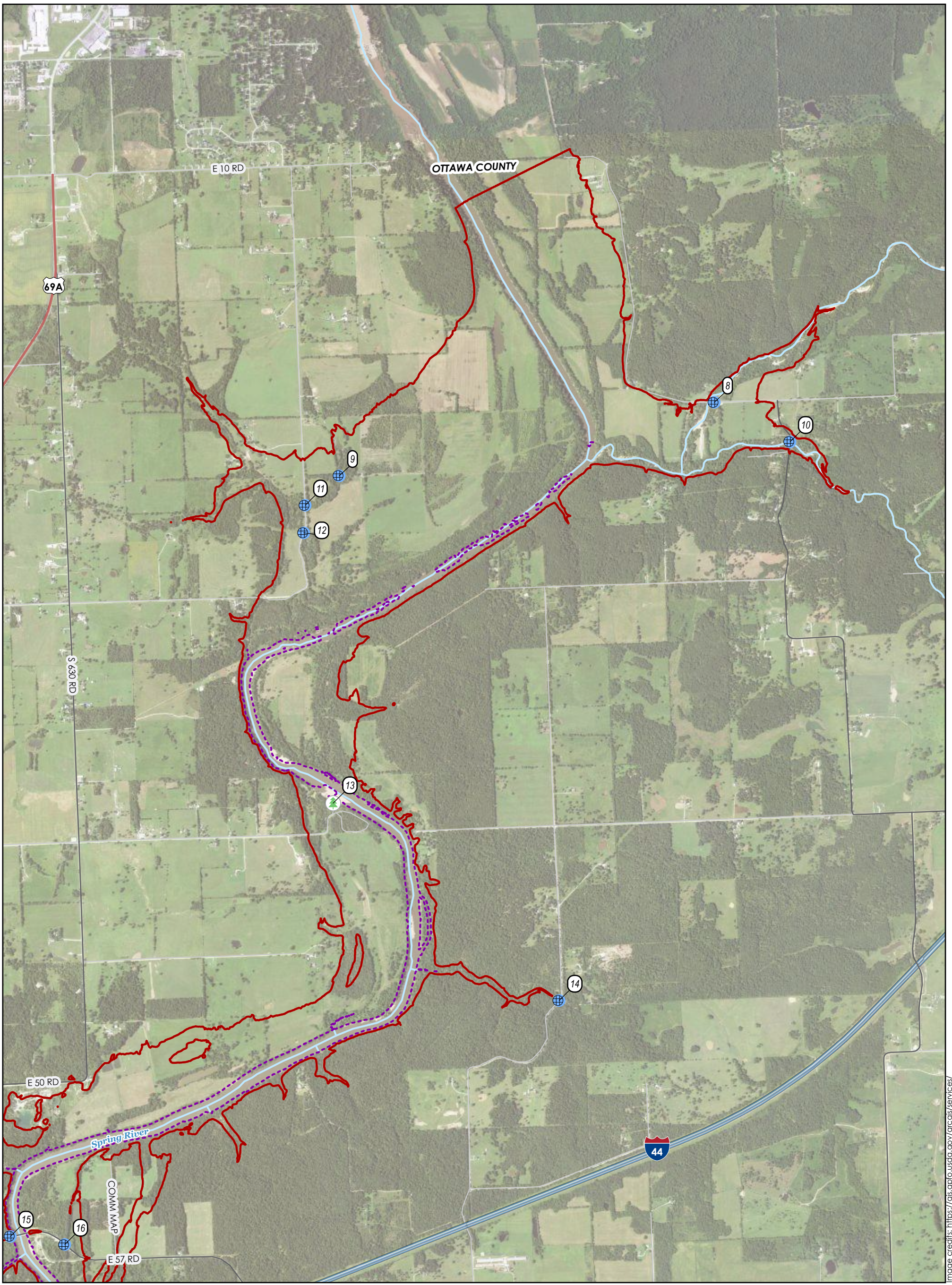
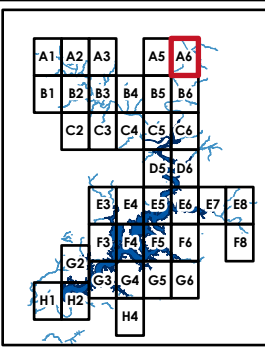
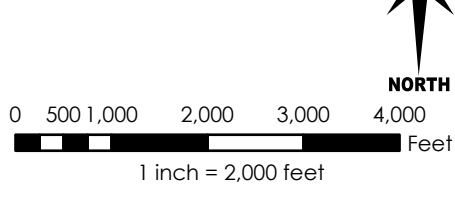


Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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
+	Railroad
—	Stream
- - -	Flowage Easements
- - -	Project Boundary
█	GRDA Ownership

MAP AND LEGEND NOTES

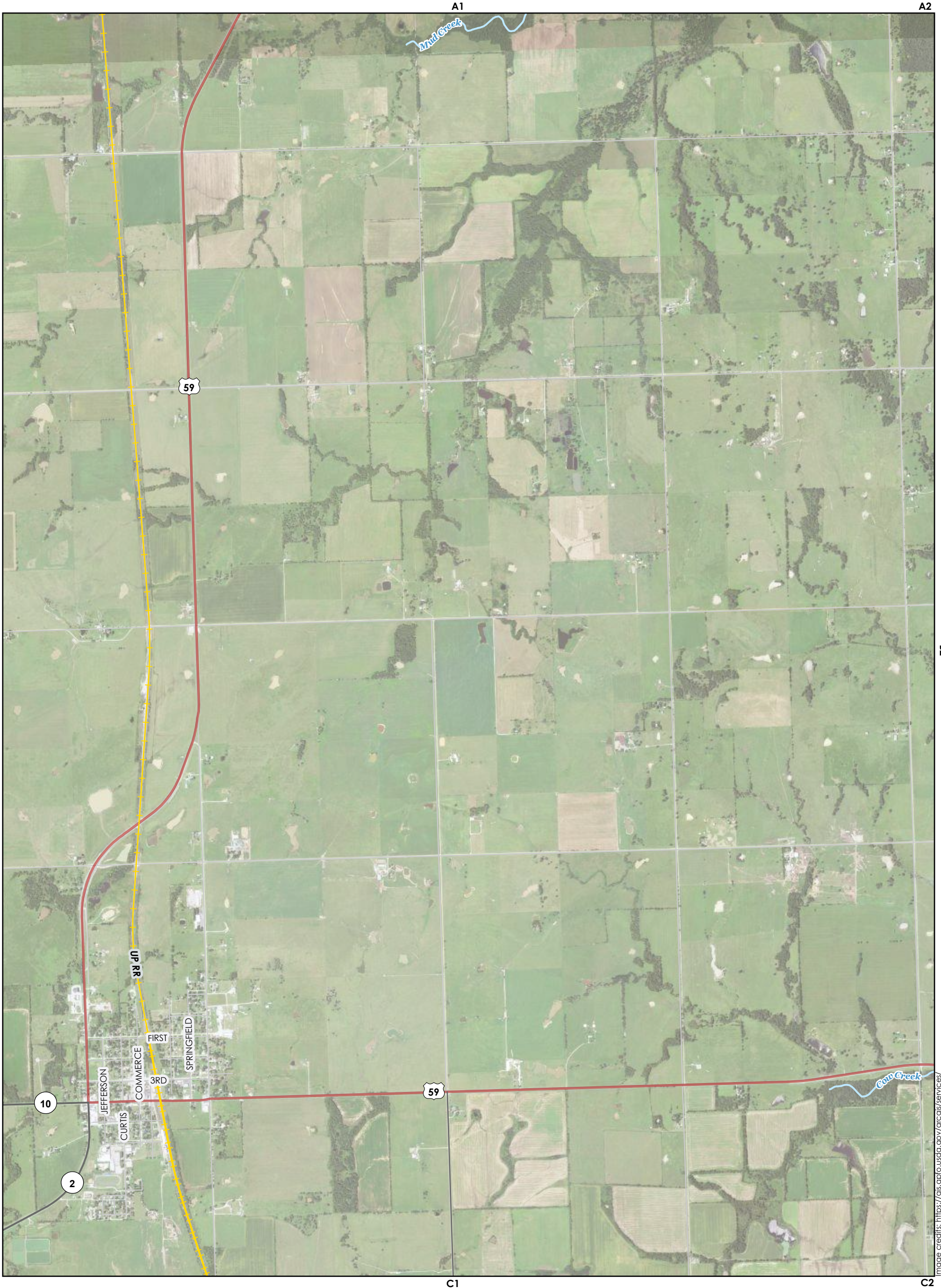
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

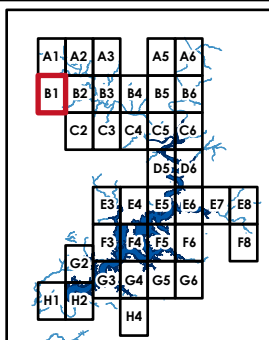
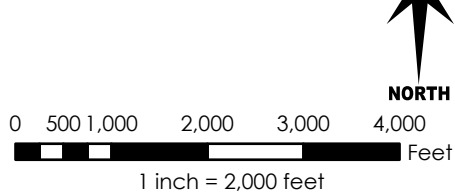
MAP: A6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	—	Railroad
State Highway	—	Stream
US Highway	—	Flowage Easements
Major Collector	—	Project Boundary
Local Road	—	GRDA Ownership

MAP AND LEGEND NOTES

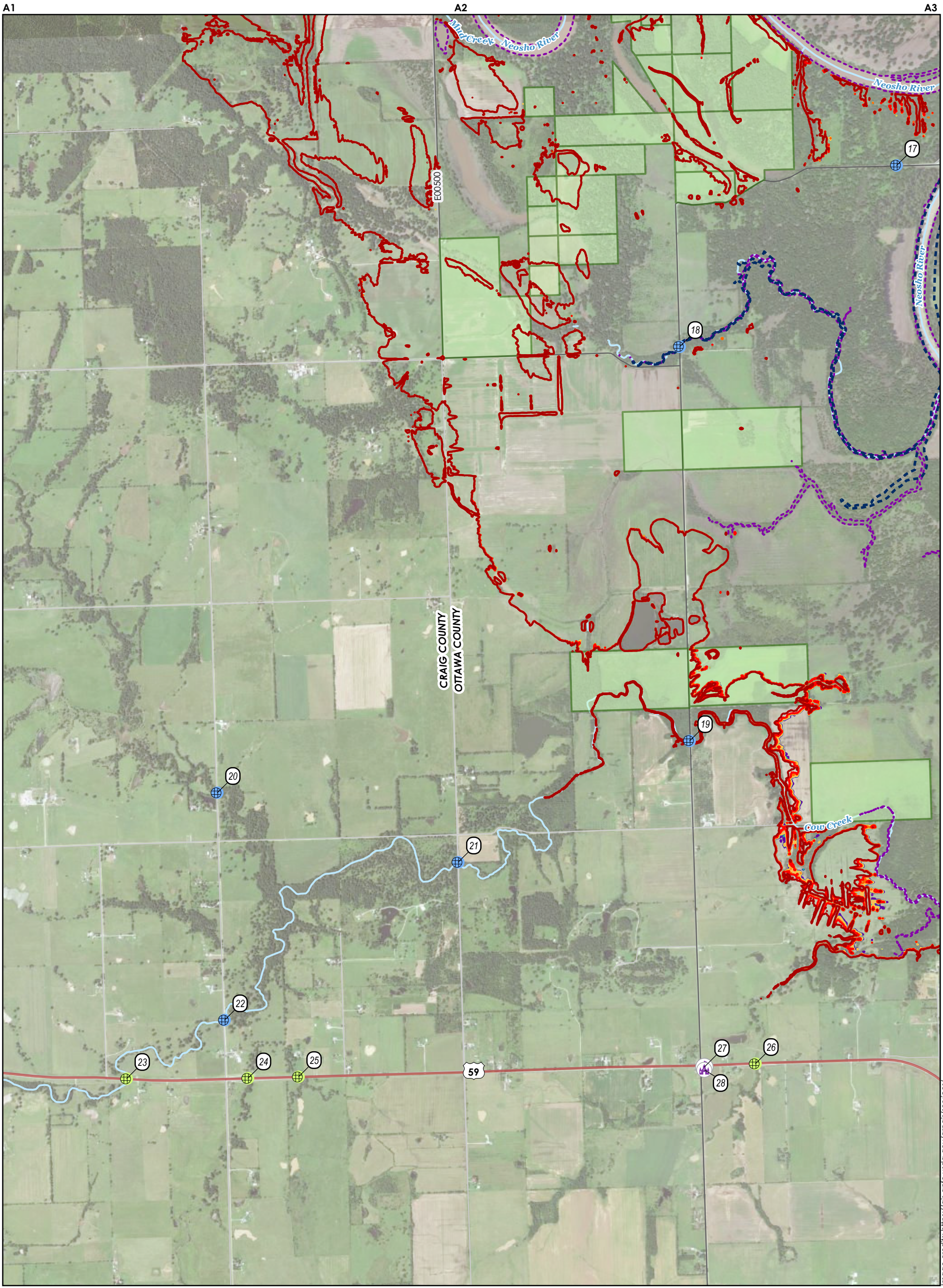
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: B1

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

A1 A2 B2 C1 C2
Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH ↑

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

1 inch = 2,000 feet

DEC 2015 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

- + Railroad
- Stream
- - - Flowage Easements
- - - Project Boundary
- █ GRDA Ownership

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: B2

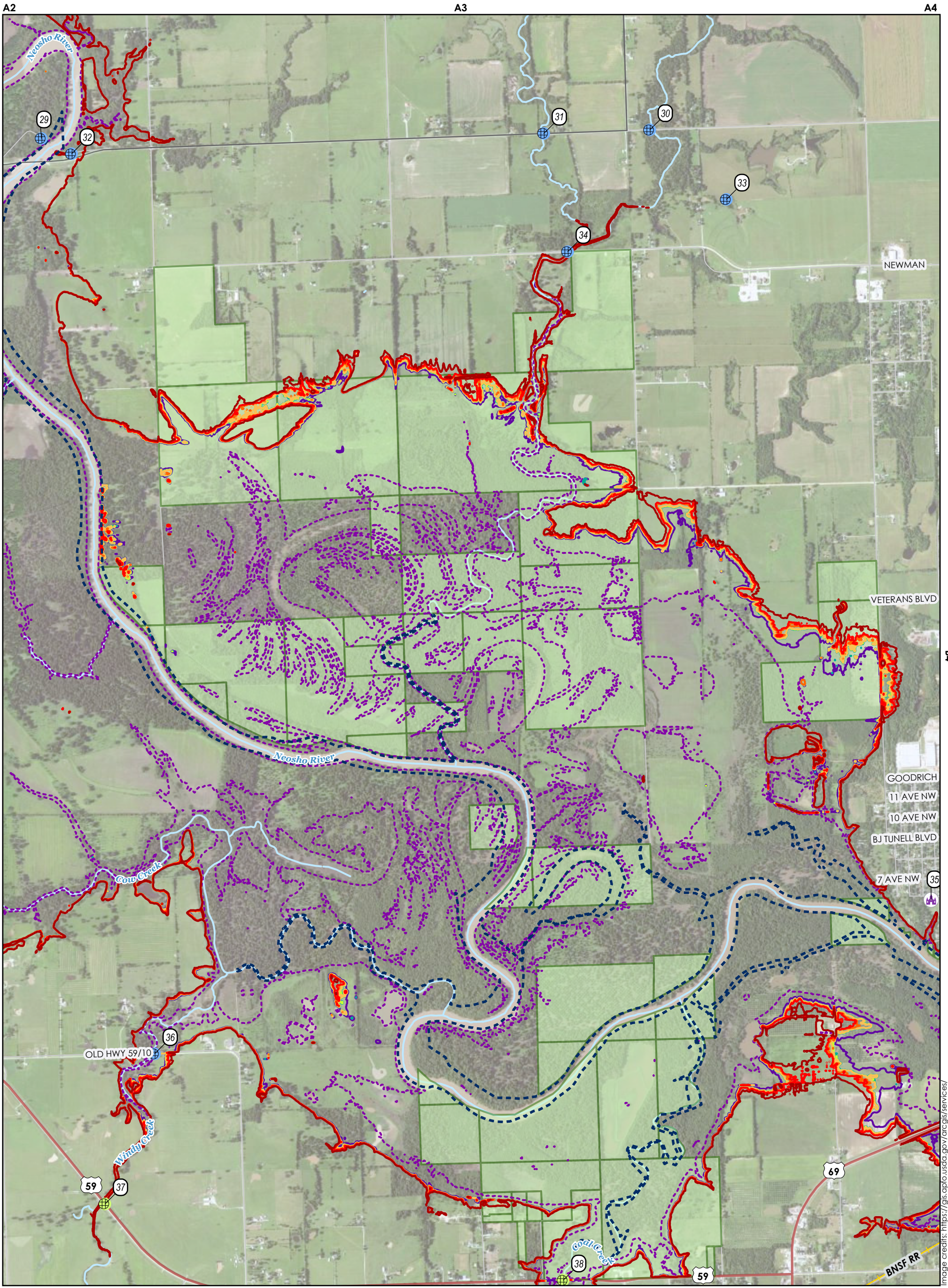
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

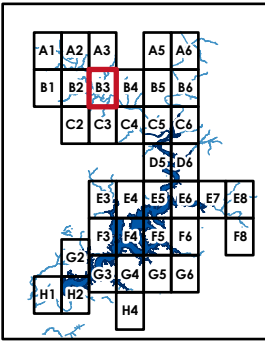
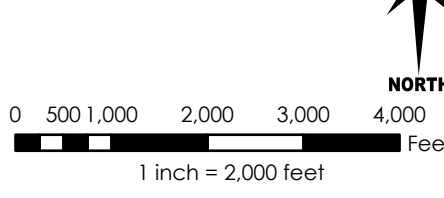
MAP AND LEGEND NOTES

- 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 and the Critical Infrastructure symbols.

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



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	

ROAD CLASS	
— Interstate	— Stream
— State Highway	- - - Flowage Easements
— US Highway	- - - Project Boundary
— Major Collector	█ GRDA Ownership
— Local Road	

+ Railroad
— Stream
- - - Flowage Easements
- - - Project Boundary
█ GRDA Ownership

MAP AND LEGEND NOTES

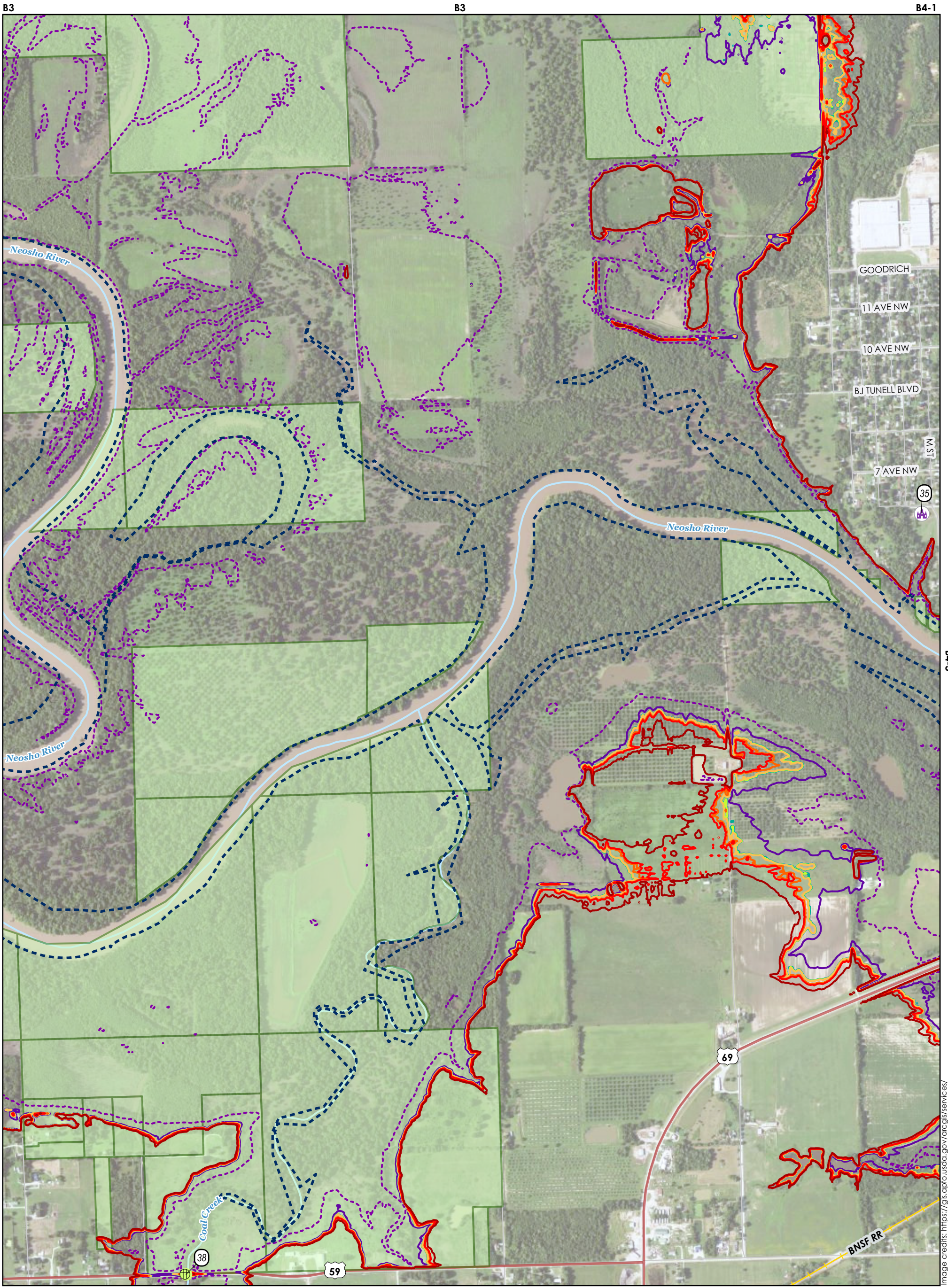
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: B3

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

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

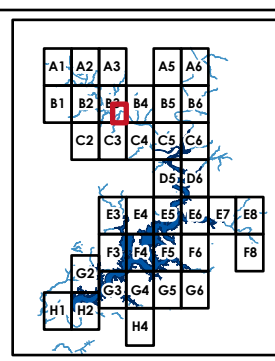


DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH

0 250 500 1,000 1,500 2,000 Feet

1 inch = 1,000 feet



DEC 2015 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

Interstate	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

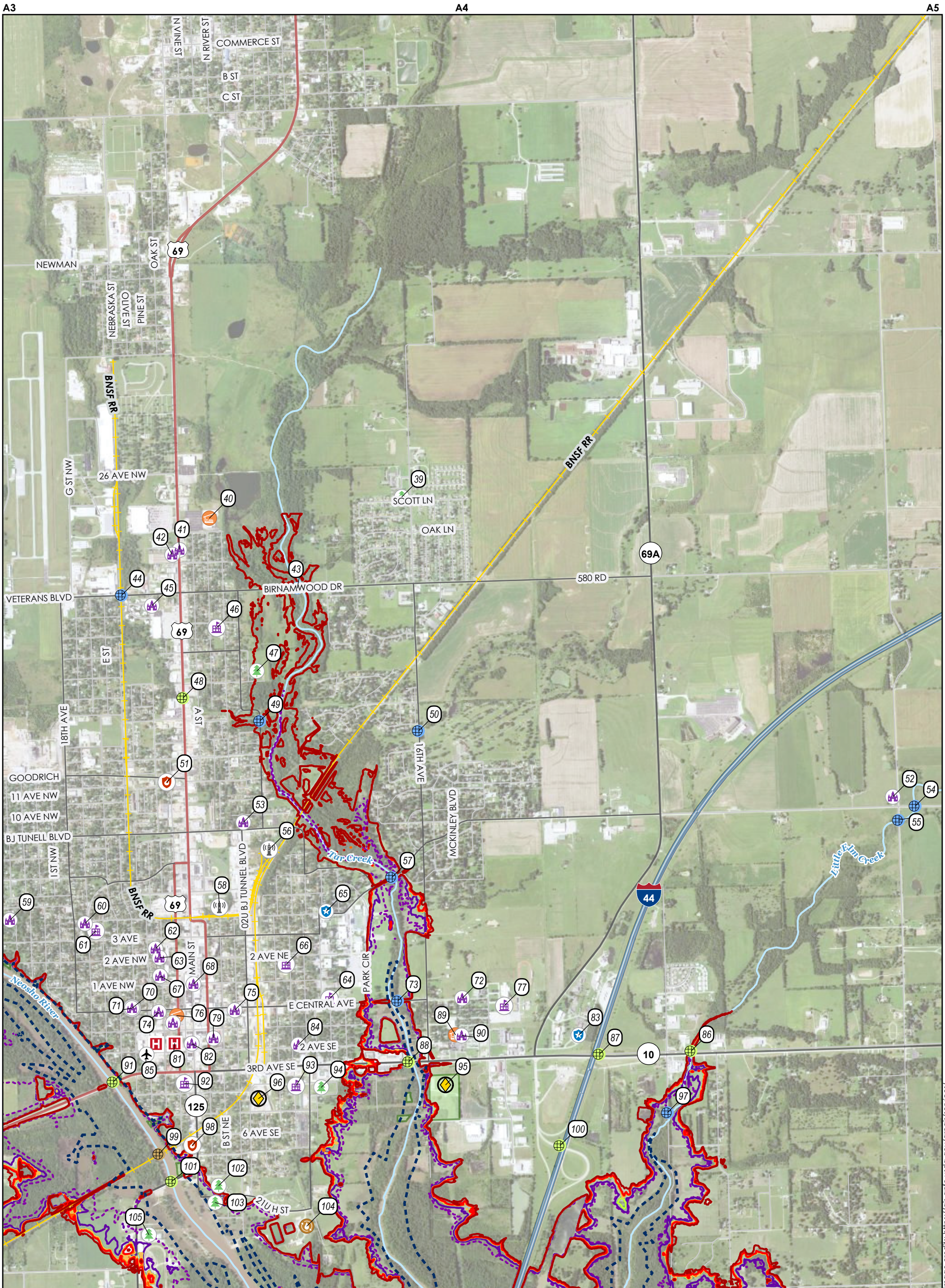
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: B3-4

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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

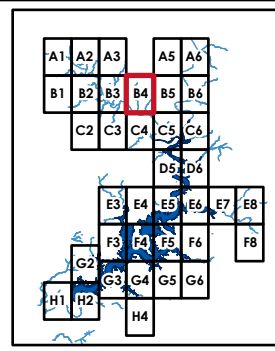


DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH

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

1 inch = 2,000 feet



DEC 2015 MAX INUNDATION		ROAD CLASS		Legend	
757.0 ft PD	743.5 ft PD	Interstate	Railroad	Stream	Flowage Easements
753.0 ft PD	743.0 ft PD	State Highway	Stream	Project Boundary	GRDA Ownership
749.0 ft PD	742.5 ft PD	US Highway	Project Boundary	GRDA Ownership	
745.0 ft PD	742.0 ft PD	Major Collector			
744.5 ft PD	734.0 ft PD	Local Road			
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 and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

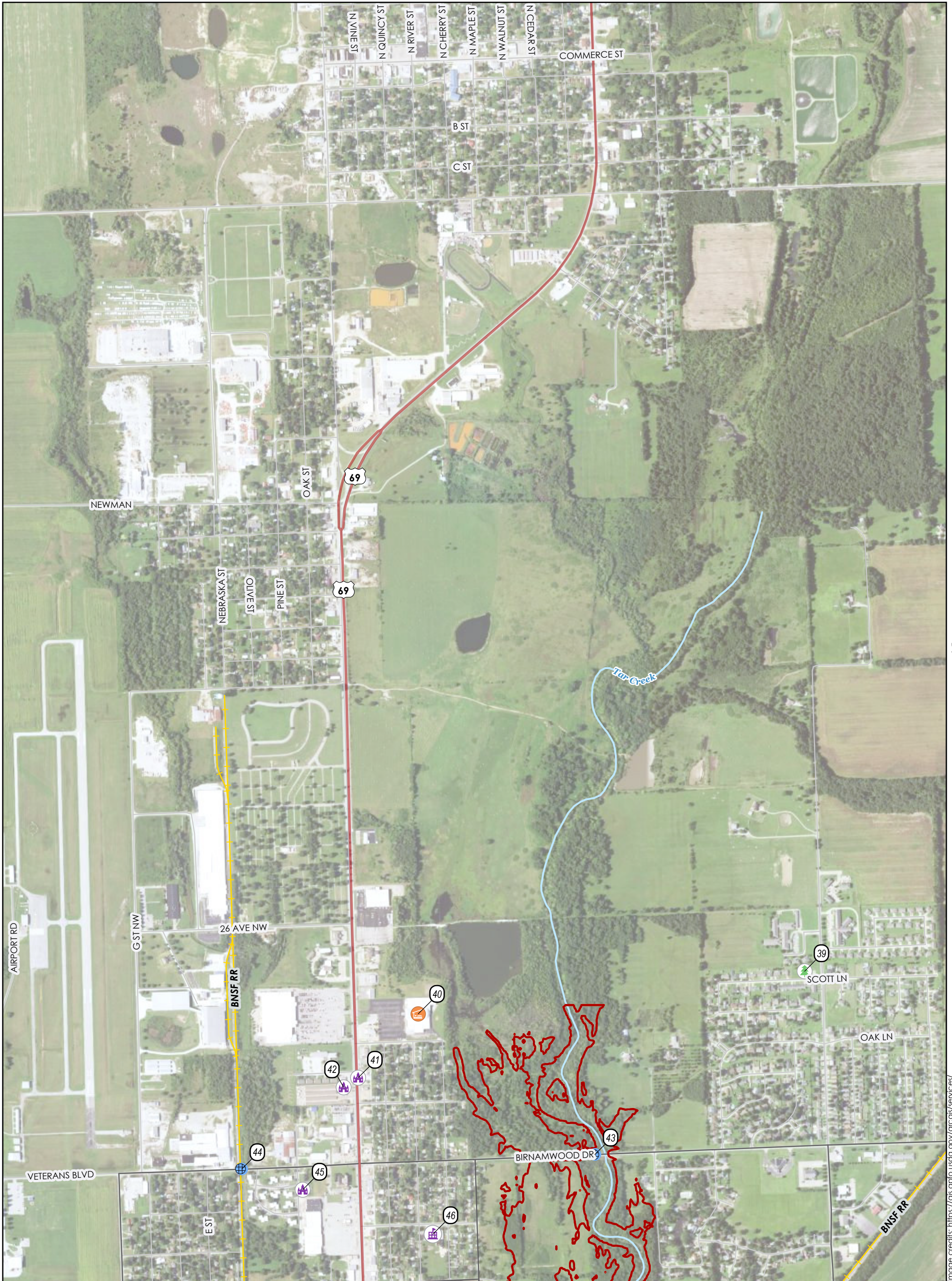
MAP: B4

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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

A3

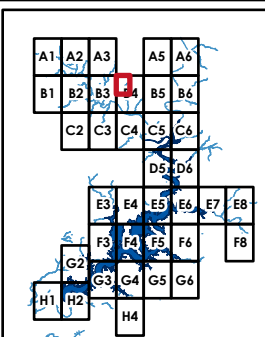
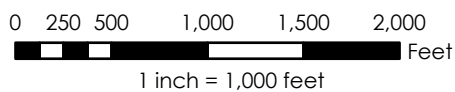


B3-4

B4-3

B4-4

DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

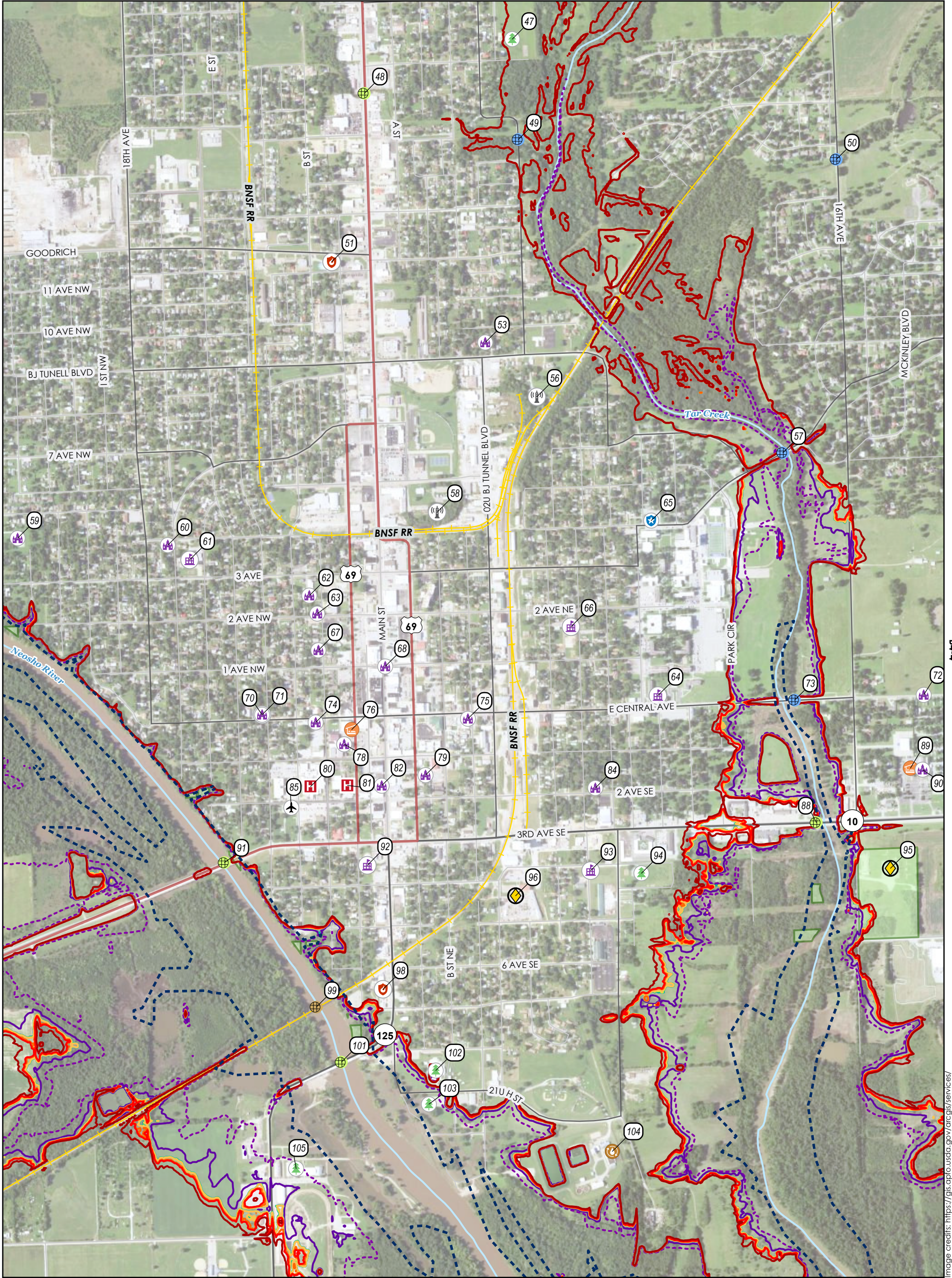
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: B4-1

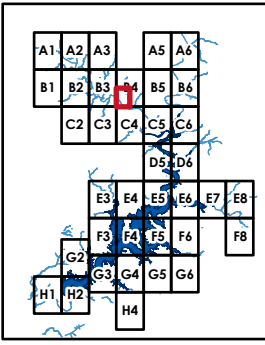
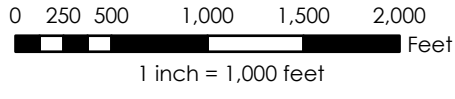
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	Flowage Easements
US Highway	Project Boundary
Major Collector	GRDA Ownership
Local Road	

- Railroad
- Stream
- Flowage Easements
- Project Boundary
- GRDA Ownership

MAP AND LEGEND NOTES

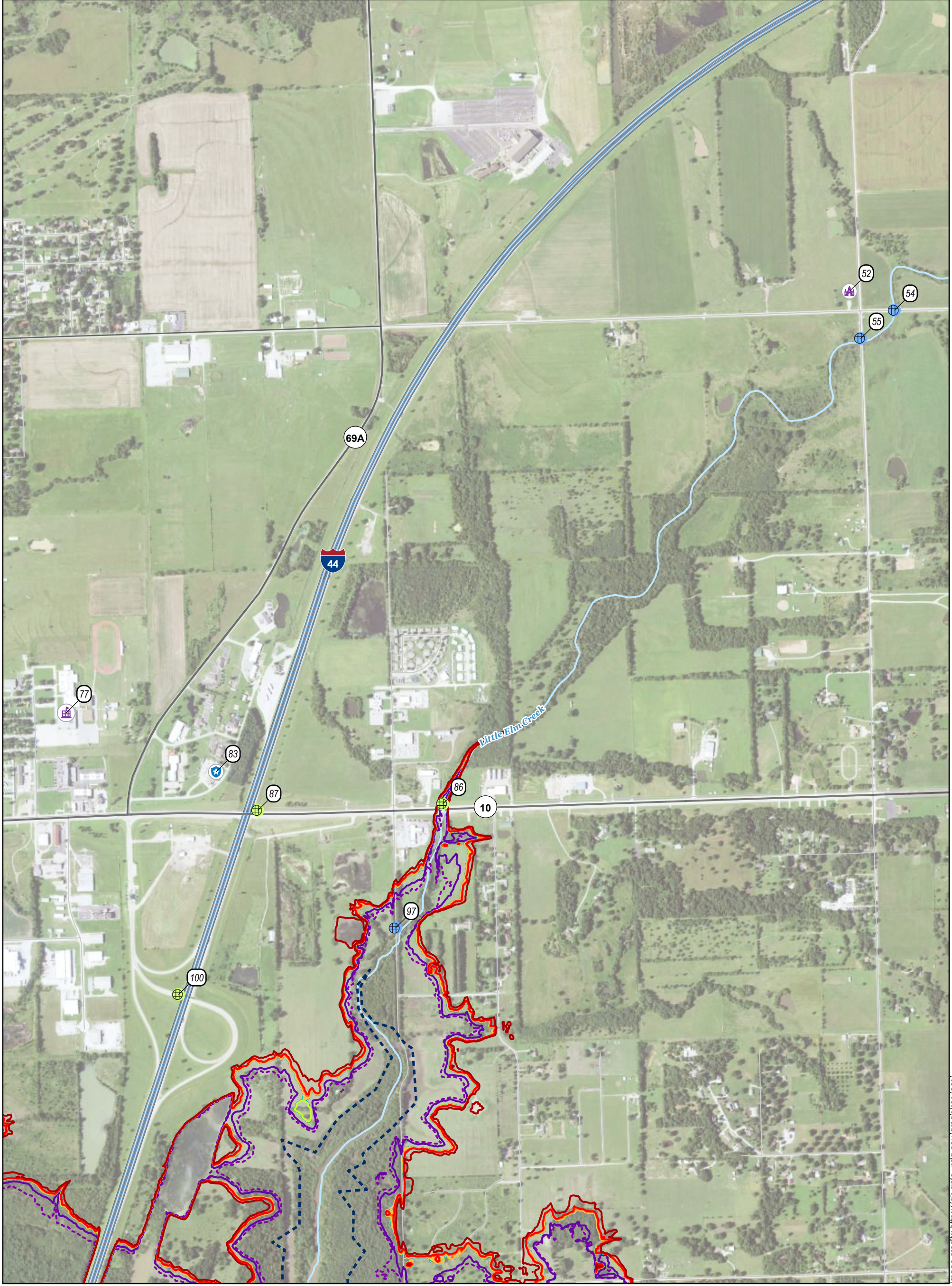
- For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
- See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

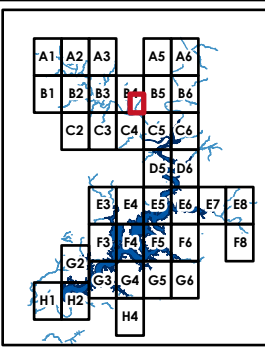
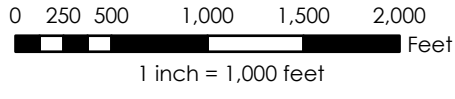
MAP: B4-3

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022



**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



DEC 2015 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	Blue double line	Railroad
State Highway	Grey line	Stream
US Highway	Red line	Flowage Easements
Major Collector	Black line	Project Boundary
Local Road	Thin grey line	GRDA Ownership

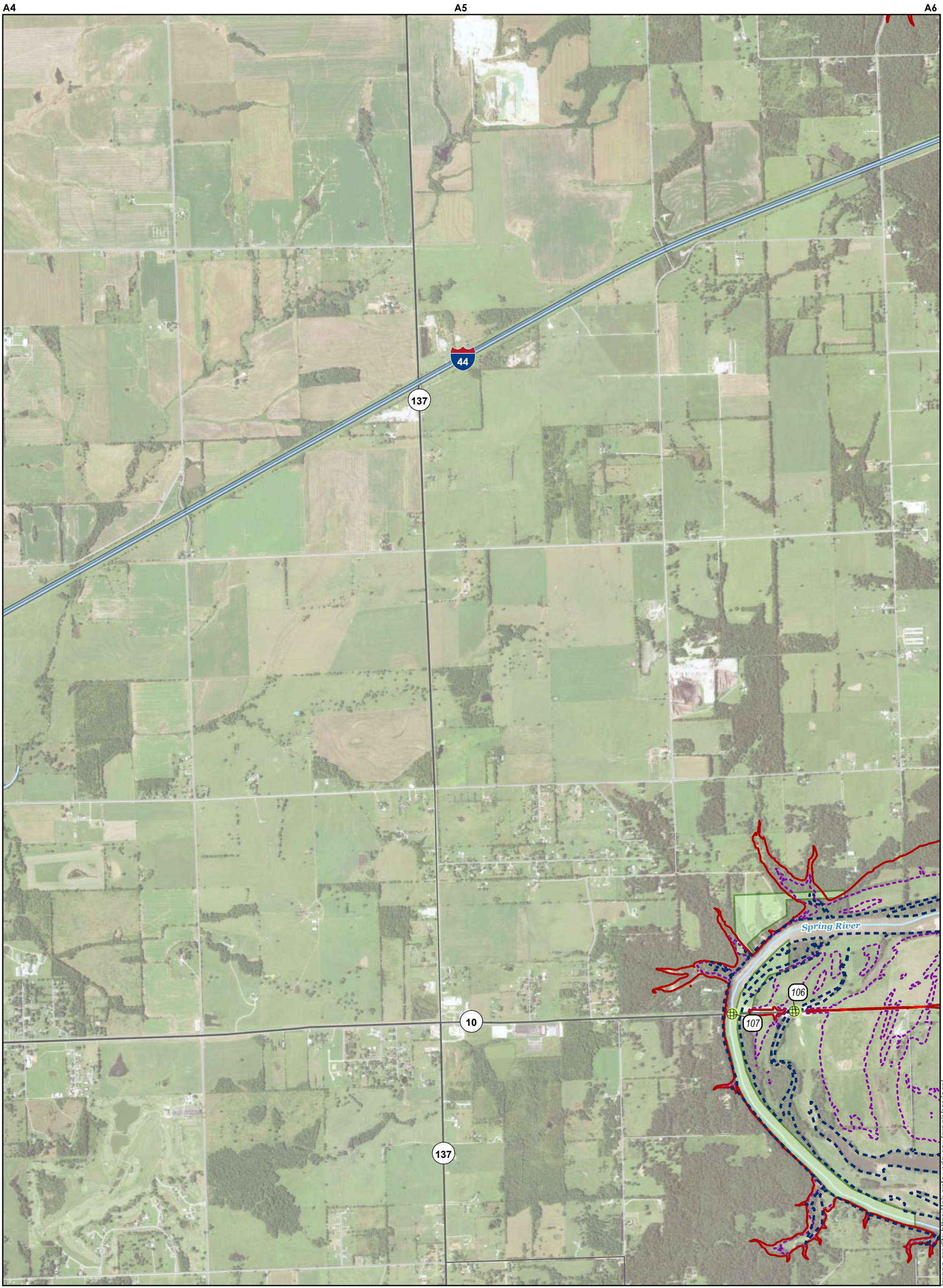
MAP AND LEGEND NOTES

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 and the Critical Infrastructure symbols.

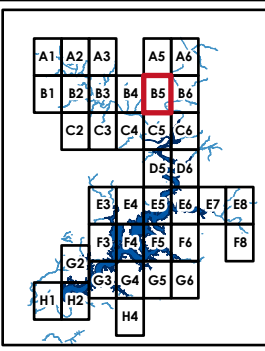
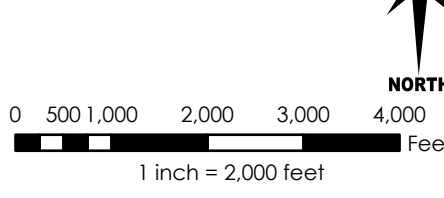
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: B4-4

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



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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
+	Railroad
—	Stream
---	Flowage Easements
---	Project Boundary
█	GRDA Ownership

MAP AND LEGEND NOTES

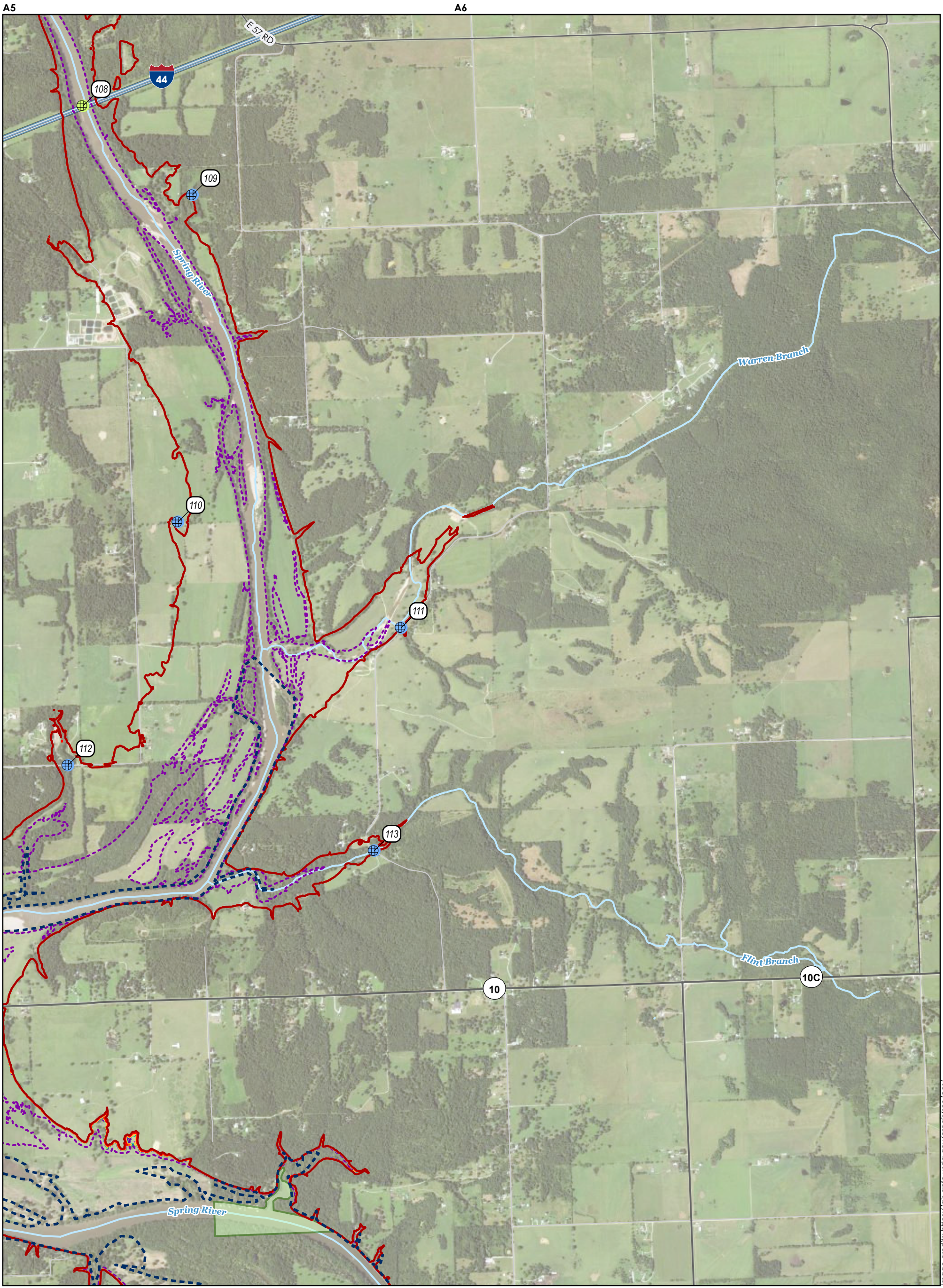
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: B5

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

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

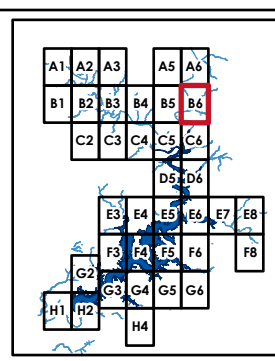


**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**

NORTH

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

1 inch = 2,000 feet



DEC 2015 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: B6

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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 and the Critical Infrastructure symbols.

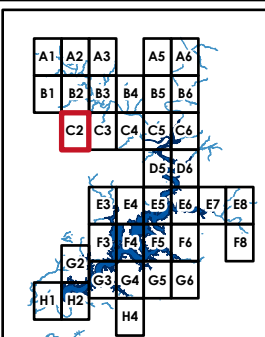
Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019



**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



0 500 1,000 2,000 3,000 4,000
Feet
1 inch = 2,000 feet



DEC 2015 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

Railroad
Stream
Flowage Easements
Project Boundary
GRDA Ownership

MAP AND LEGEND NOTES

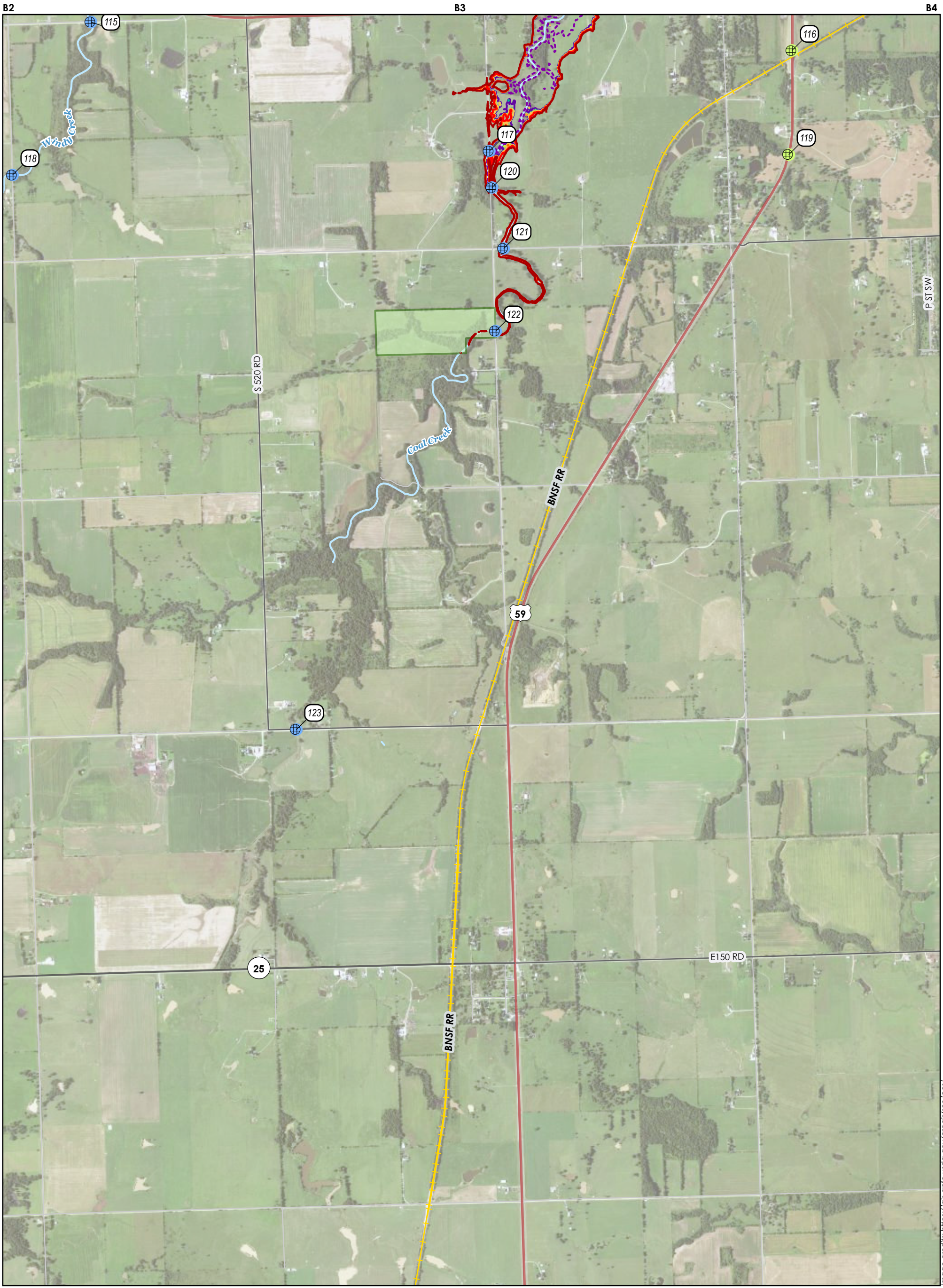
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

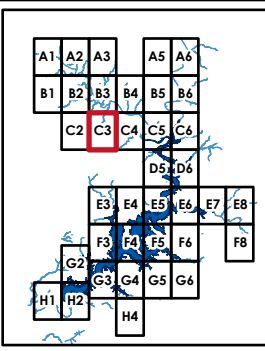
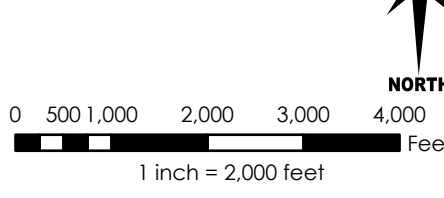
MAP: C2

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	—	Railroad
State Highway	—	Stream
US Highway	—	Flowage Easements
Major Collector	—	Project Boundary
Local Road	—	GRDA Ownership

MAP AND LEGEND NOTES

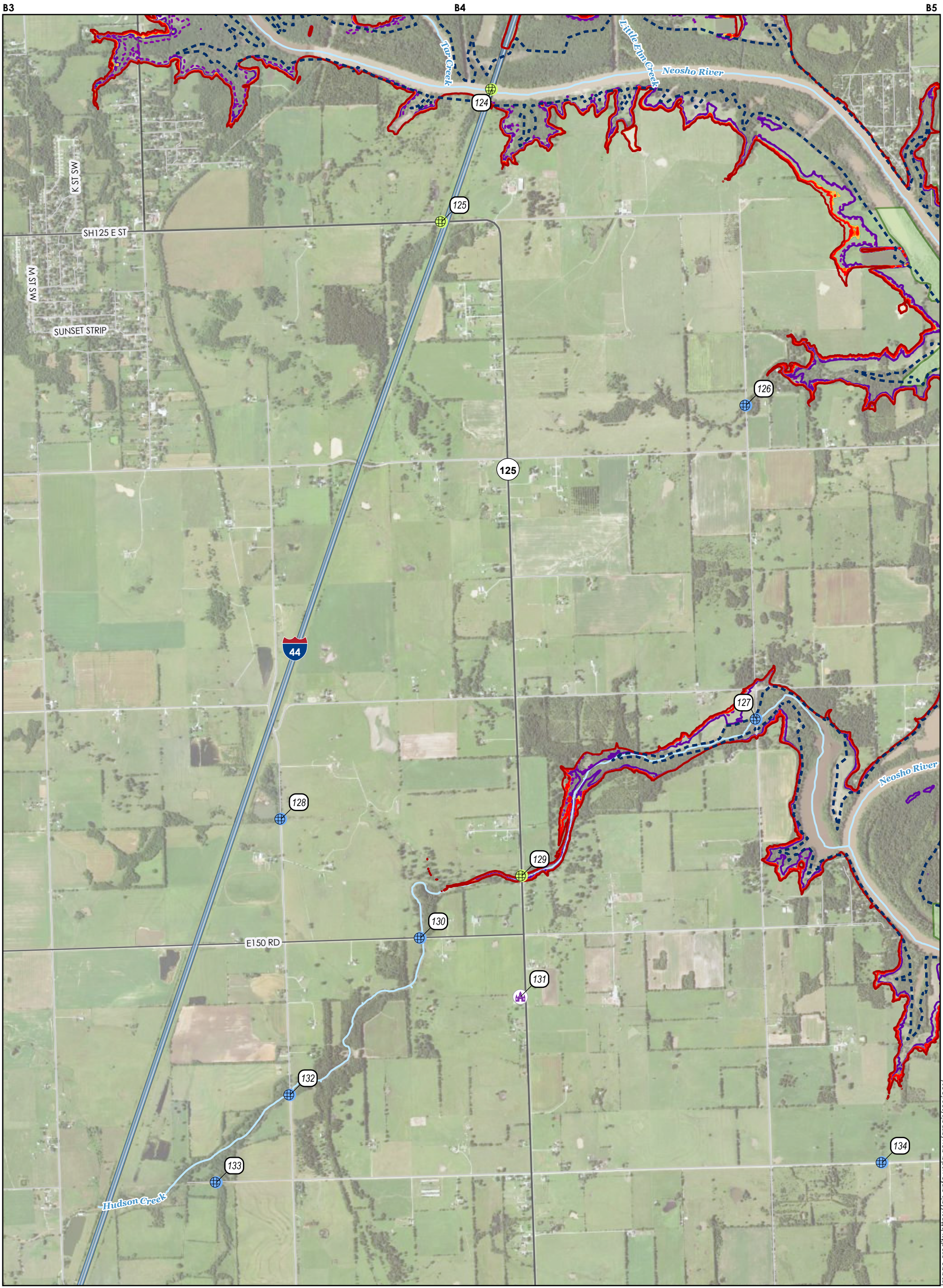
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

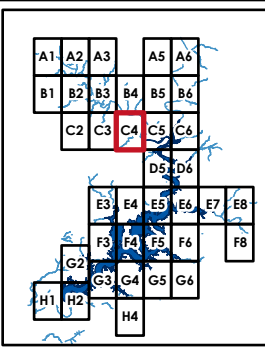
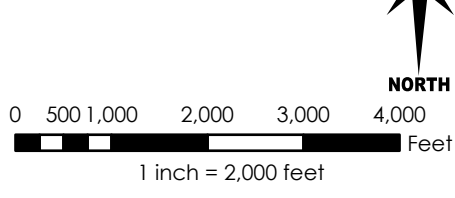
MAP: C3

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

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



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: C4

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

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

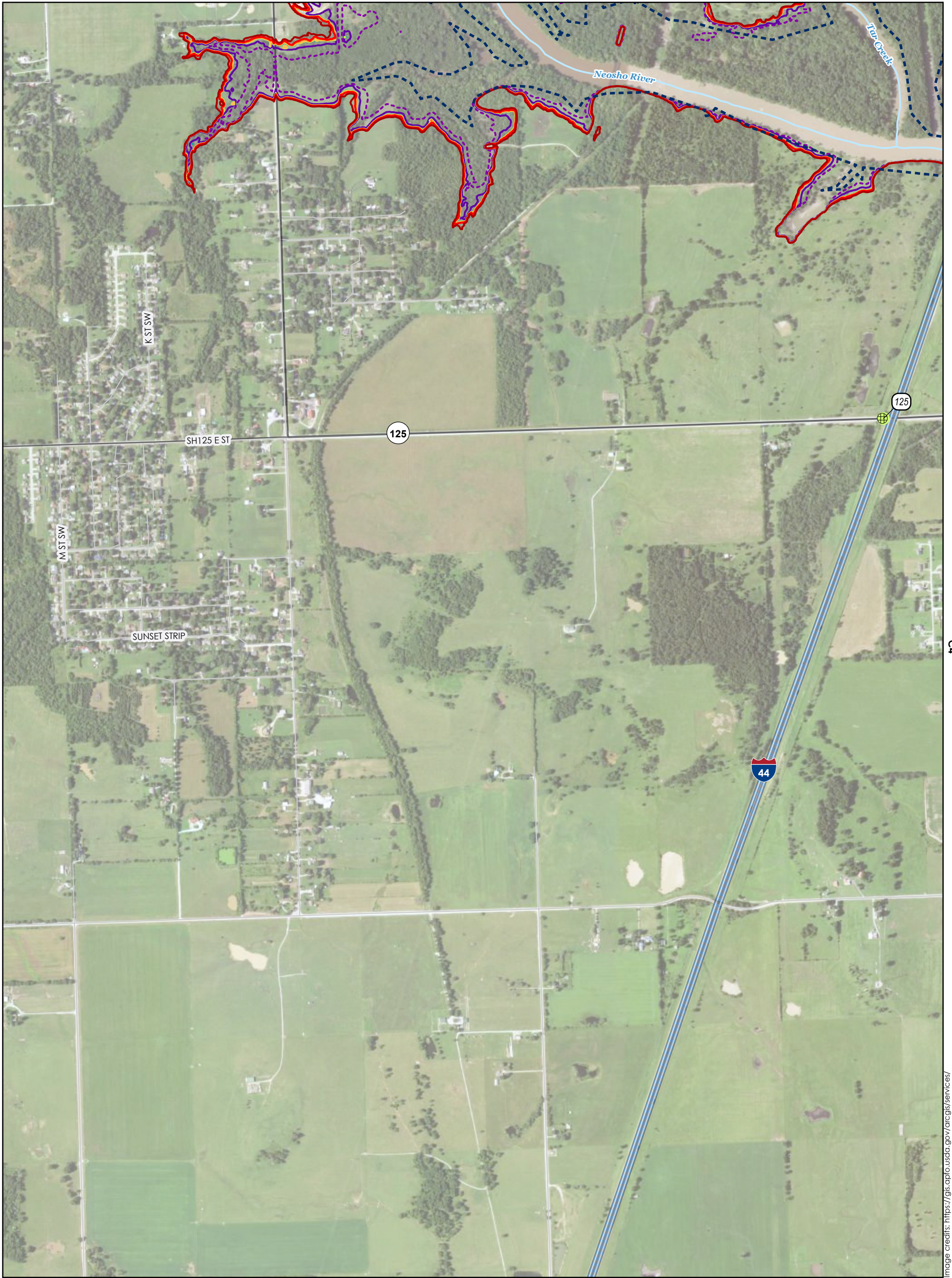
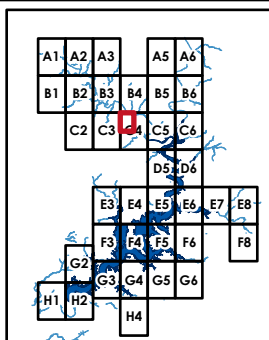
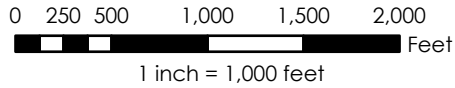


Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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

	Interstate		Railroad
	State Highway		Stream
	US Highway		Flowage Easements
	Major Collector		Project Boundary
	Local Road		GRDA Ownership

MAP AND LEGEND NOTES

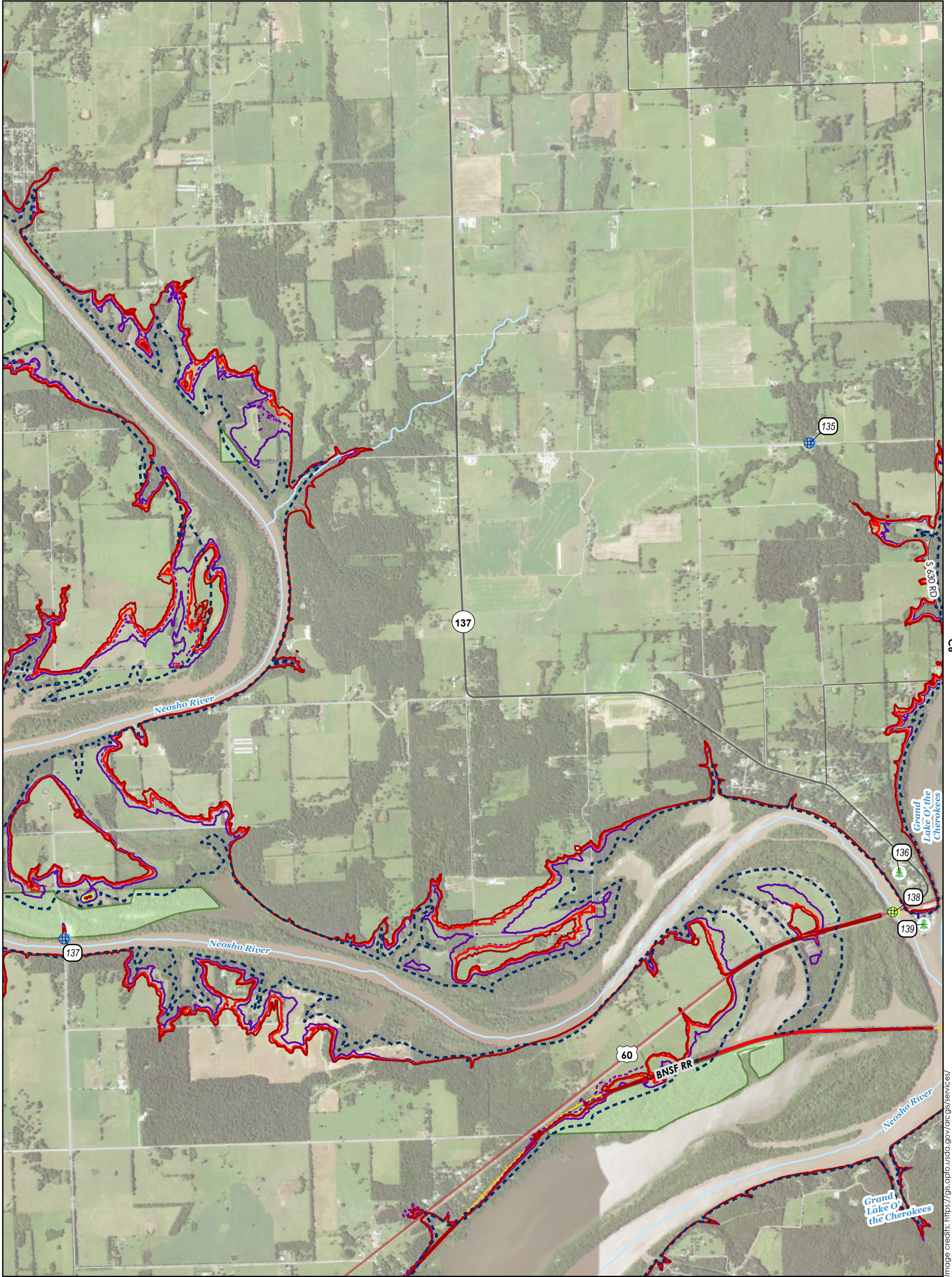
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

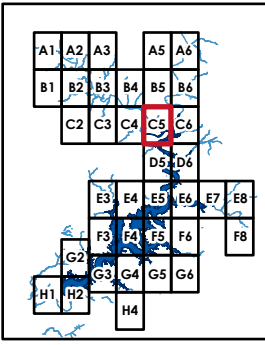
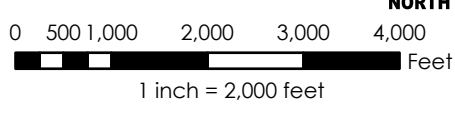
MAP: C4-1

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	— Railroad
— State Highway	— Stream
— US Highway	- - - Flowage Easements
— Major Collector	- - - Project Boundary
— Local Road	█ GRDA Ownership

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 and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: C5

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

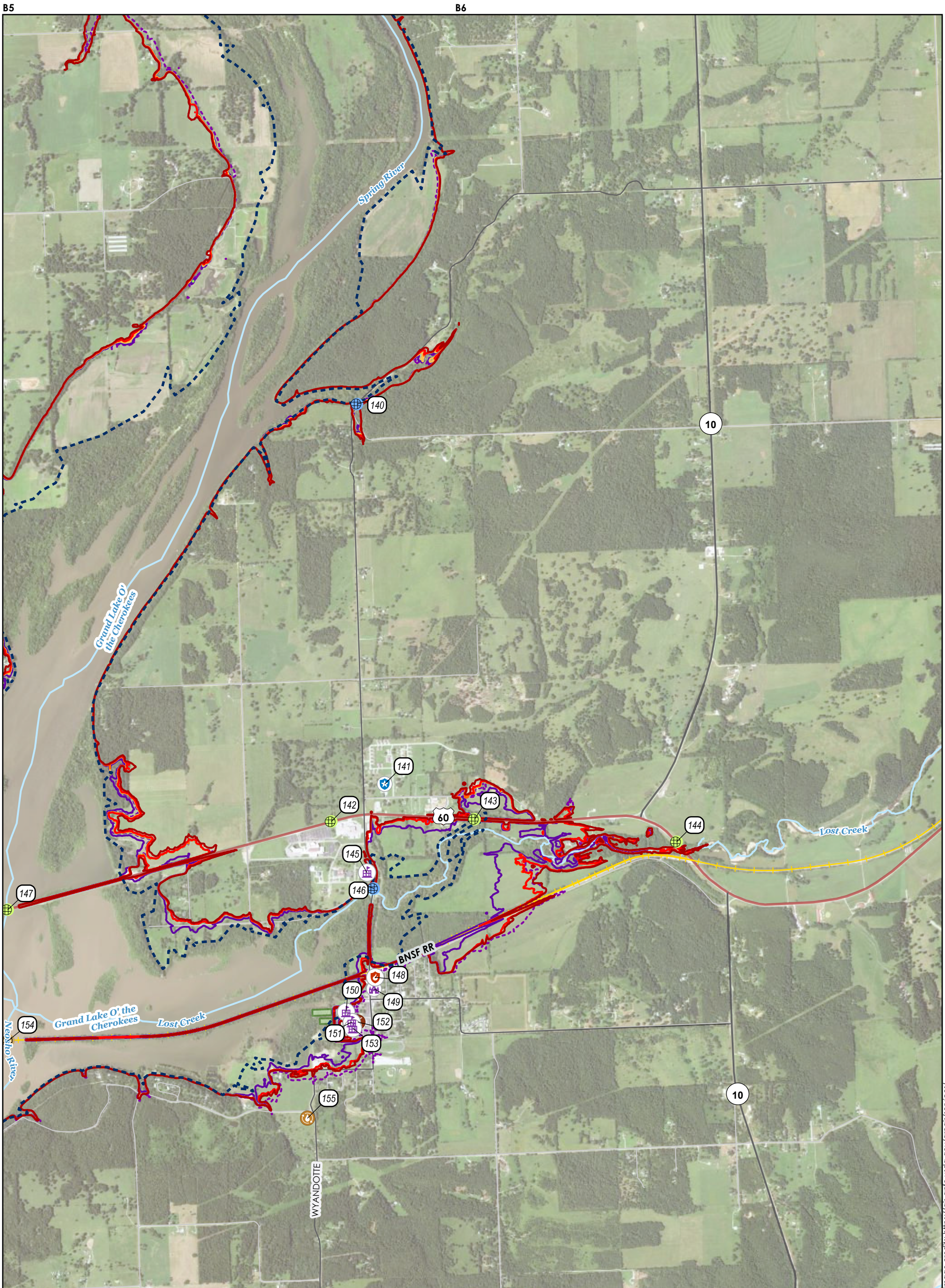


Image credits: https://gis.dplb.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH

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

1 inch = 2,000 feet

DEC 2015 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	Symbol
Interstate	Blue line with double red dashes
State Highway	Grey line with double red dashes
US Highway	Red line with double red dashes
Major Collector	Black line with double red dashes
Local Road	Thin grey line
Railroad	Yellow line with cross-ticks
Stream	Blue line
Flowage Easements	Dashed purple line
Project Boundary	Dashed blue line
GRDA Ownership	Green shaded area

PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

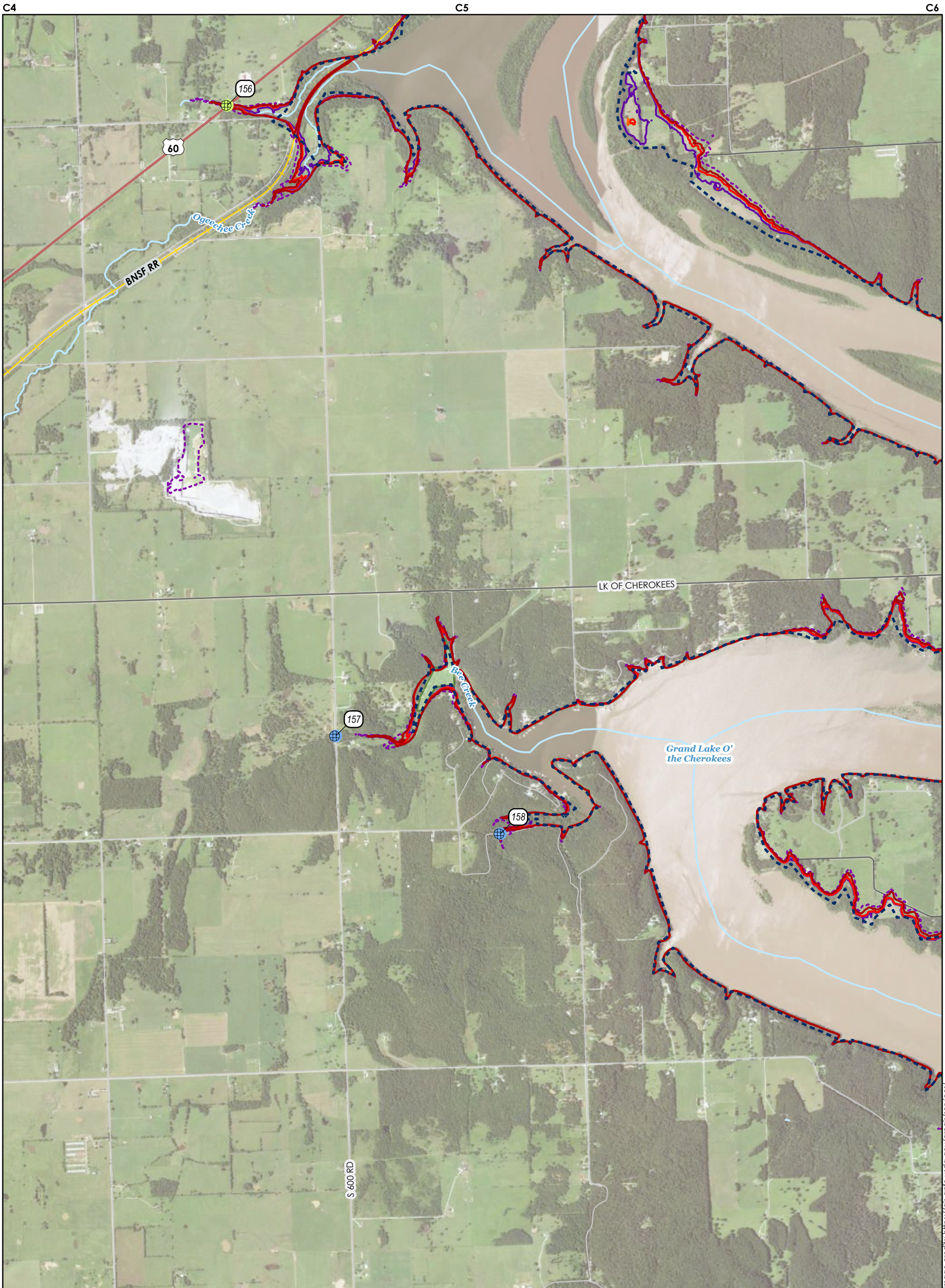
MAP: C6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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 and the Critical Infrastructure symbols.

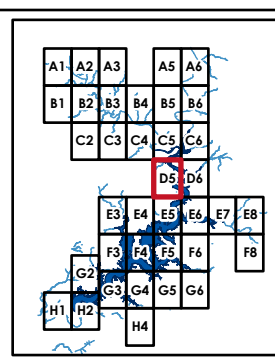


**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**

NORTH

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

1 inch = 2,000 feet



DEC 2015 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

Interstate	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: D5

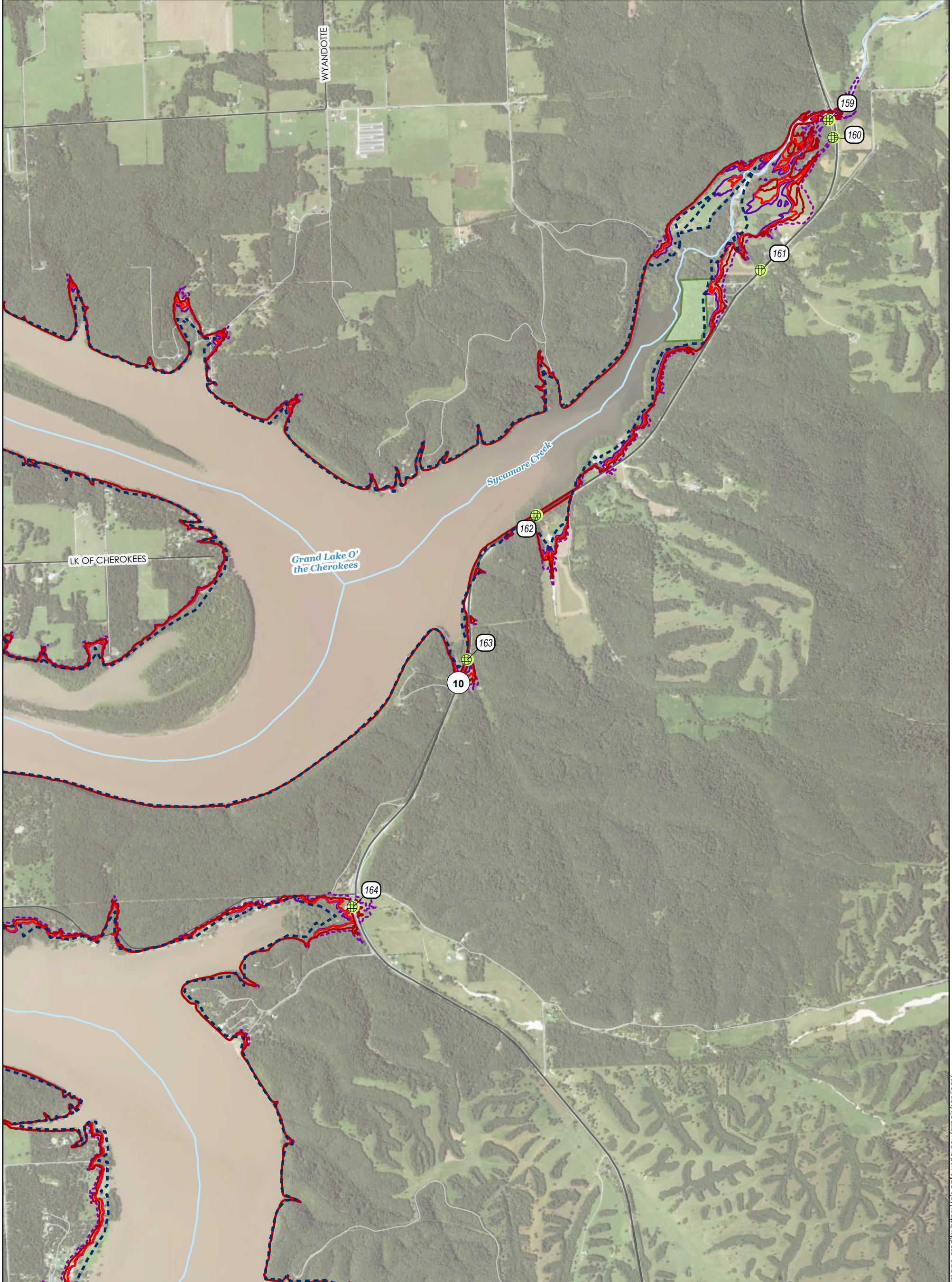
CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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

C5

C6

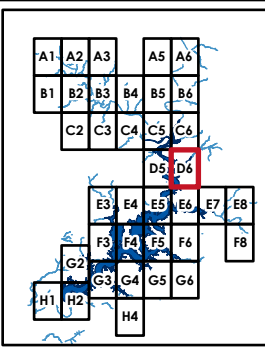
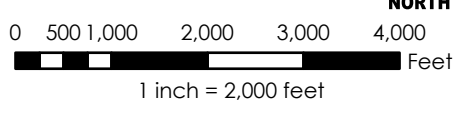


E5

E6

E7

**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



DEC 2015 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

	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

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 and the Critical Infrastructure symbols.

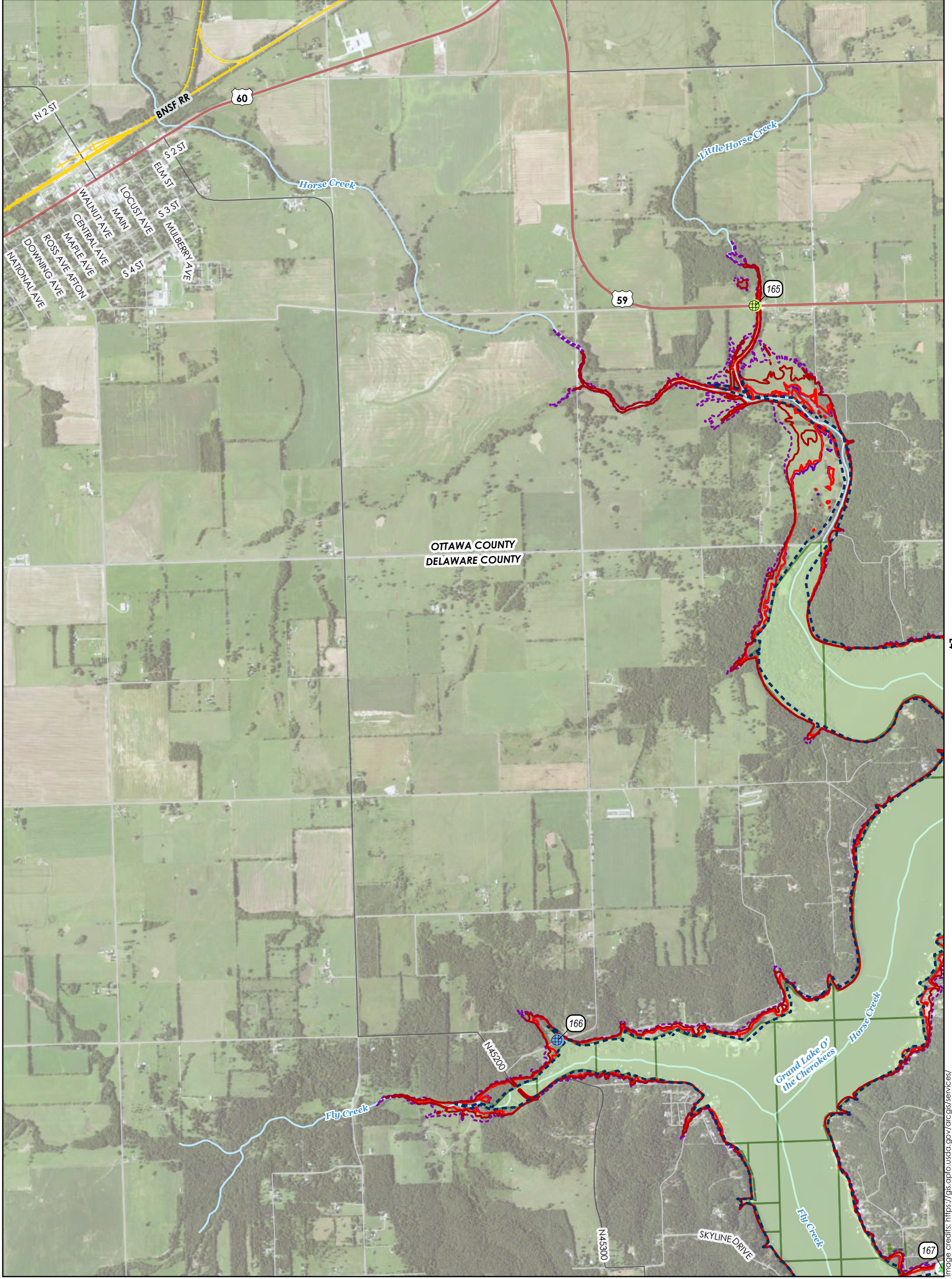
**PENSACOLA DAM
GRAND RIVER DAM AUTHORITY**

MAP: D6

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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



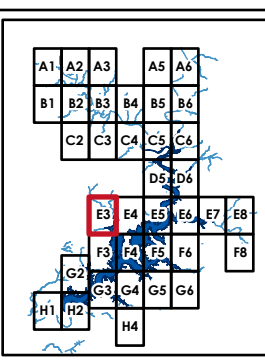
OTTAWA COUNTY
DELAWARE COUNTY

**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**

NORTH ↑

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

1 inch = 2,000 feet



DEC 2015 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

Interstate	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

MAP AND LEGEND NOTES

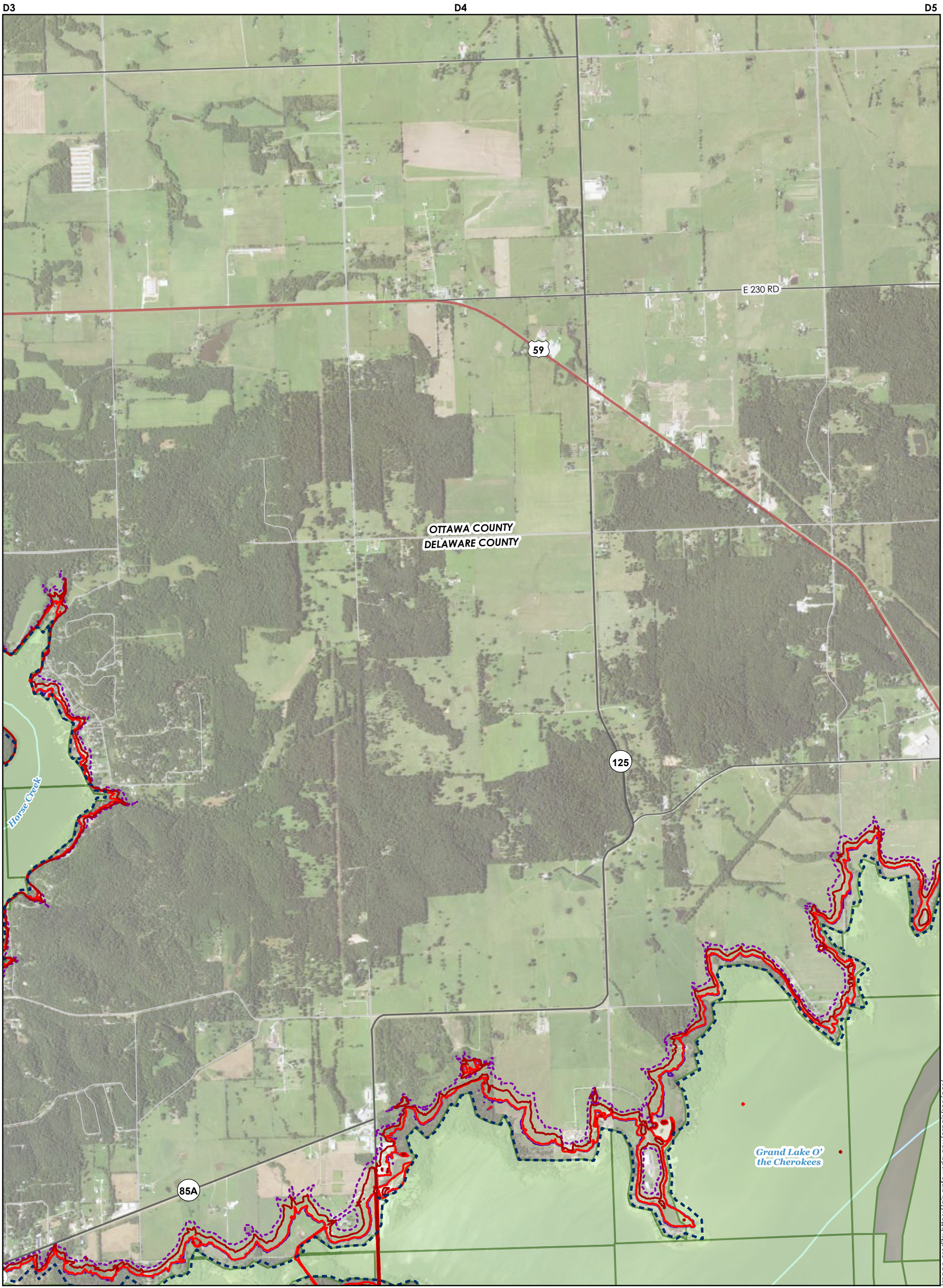
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PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

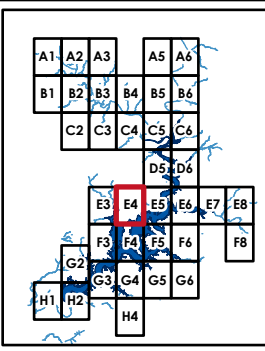
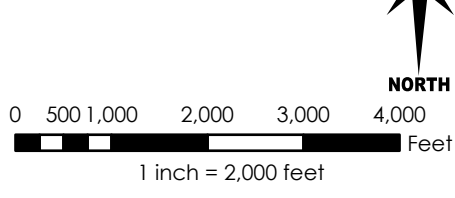
MAP: E3

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



DEC 2015 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

MAP AND LEGEND NOTES

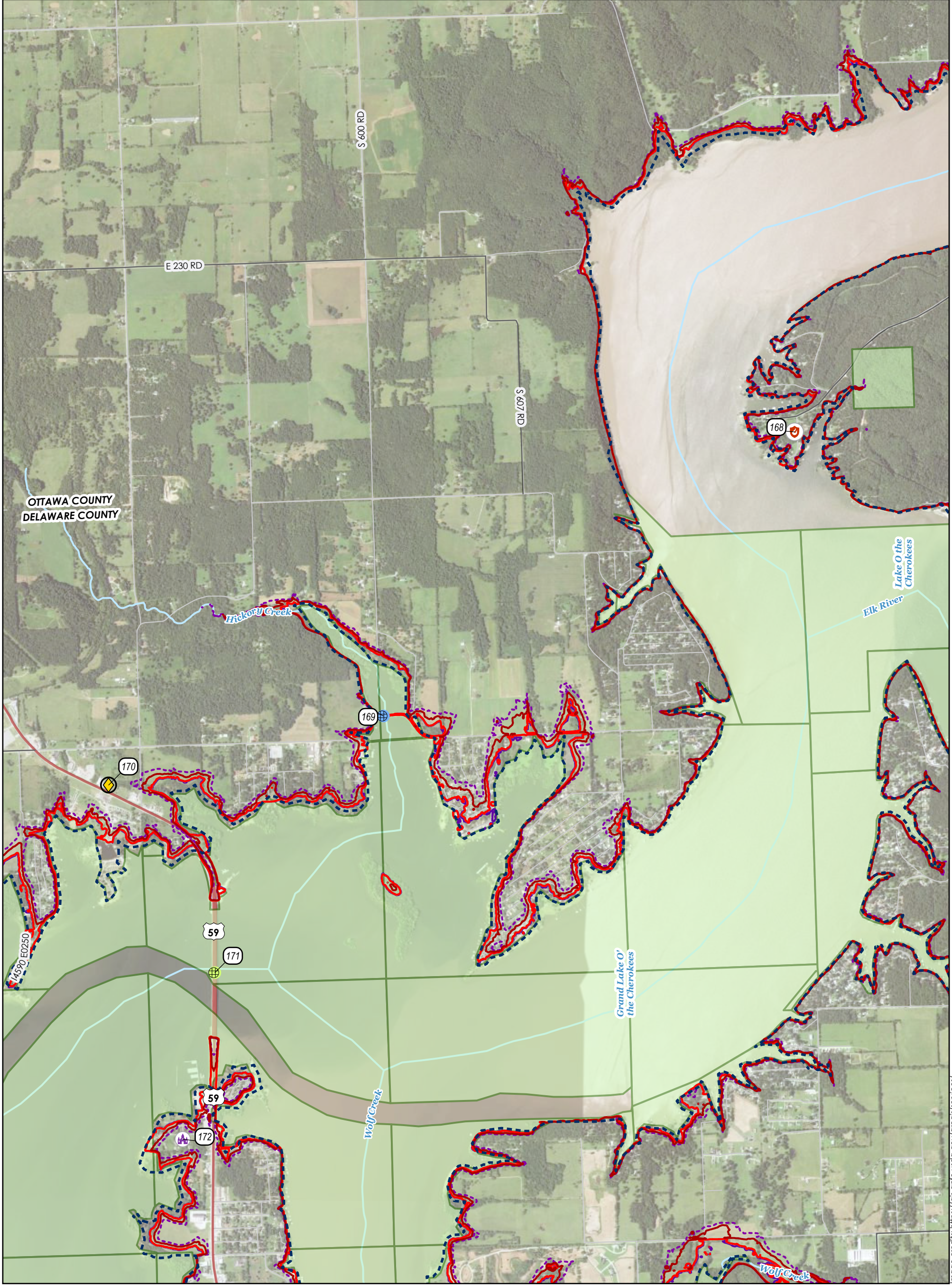
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2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

**PENSACOLA DAM
GRAND RIVER DAM AUTHORITY**

MAP: E4

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

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

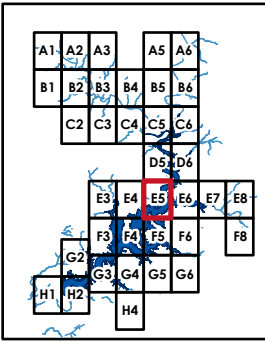


**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**

NORTH

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

1 inch = 2,000 feet



DEC 2015 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

Interstate	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

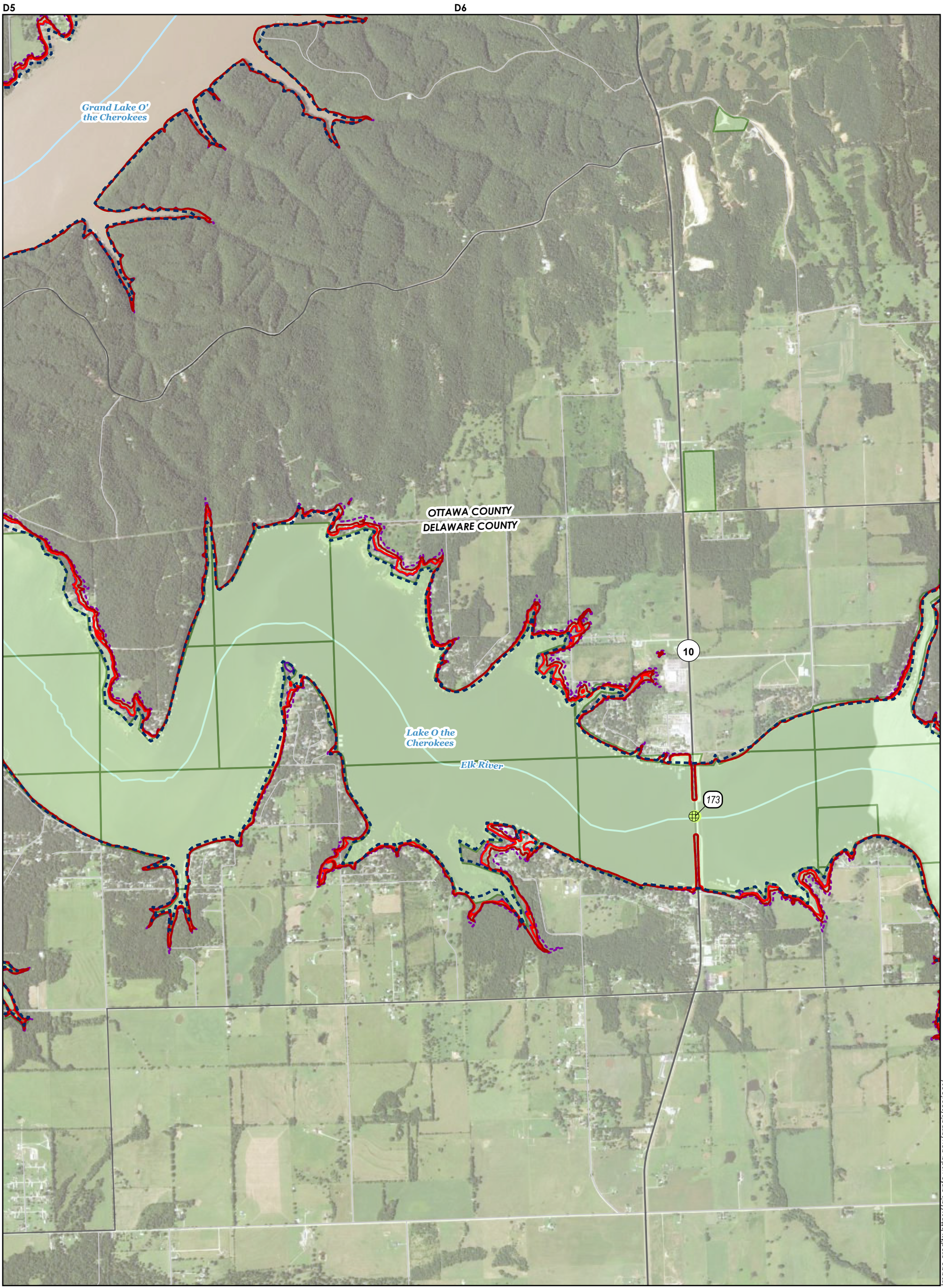
MAP: E5

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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 and the Critical Infrastructure symbols.

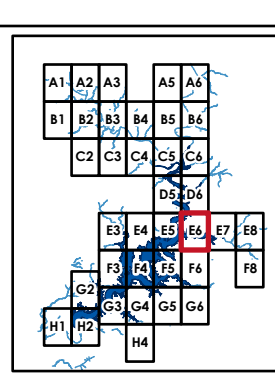


DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH

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

1 inch = 2,000 feet



DEC 2015 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: E6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

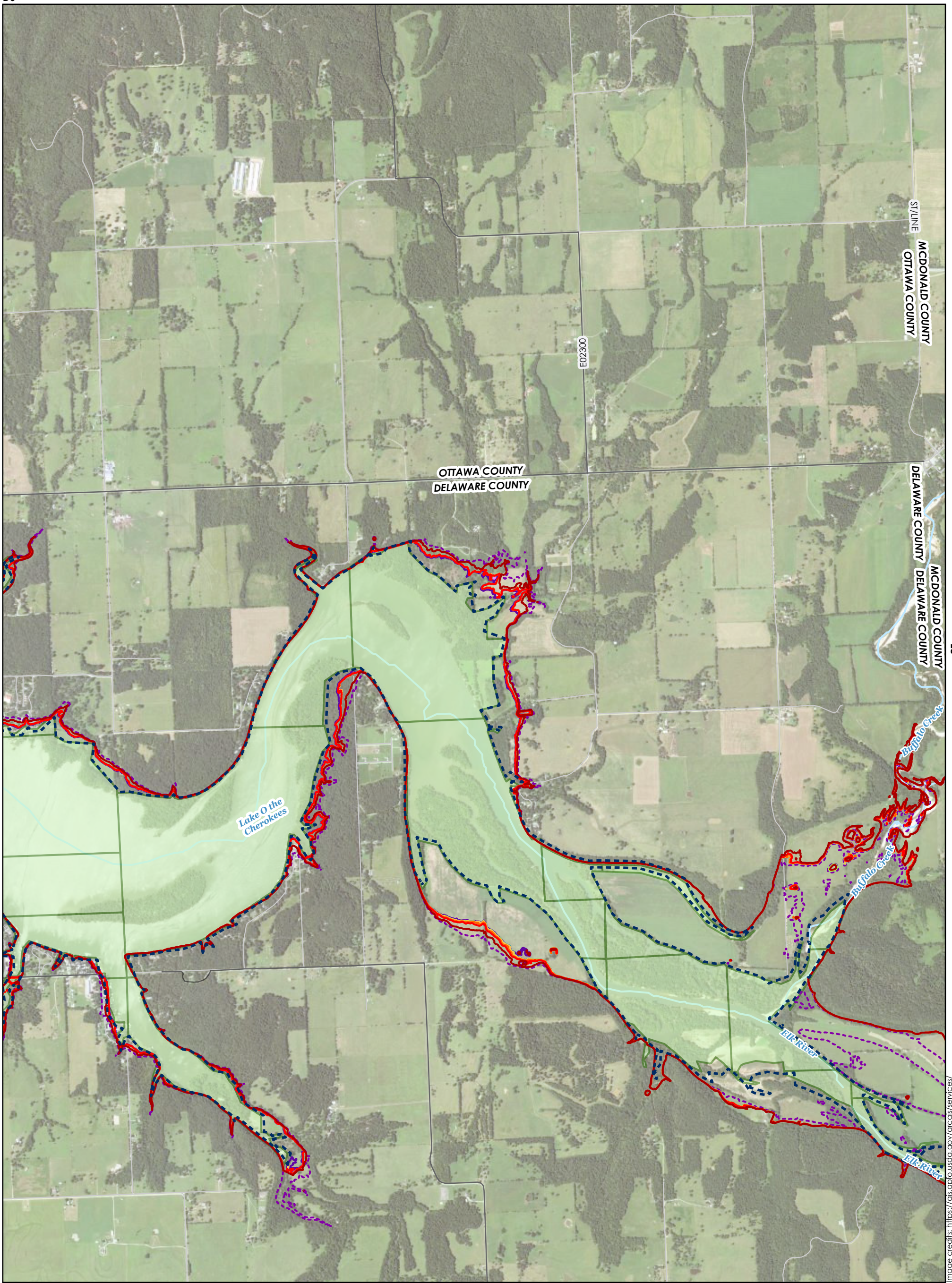
FERC No. 1494
 September 2022

MAP AND LEGEND NOTES

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2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

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

D6

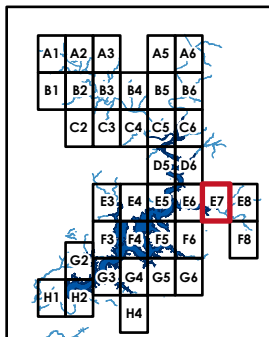
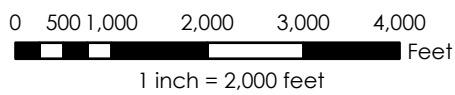


F6

F7

F8

**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



DEC 2015 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

Railroad
Stream
Flowage Easements
Project Boundary
GRDA Ownership

MAP AND LEGEND NOTES

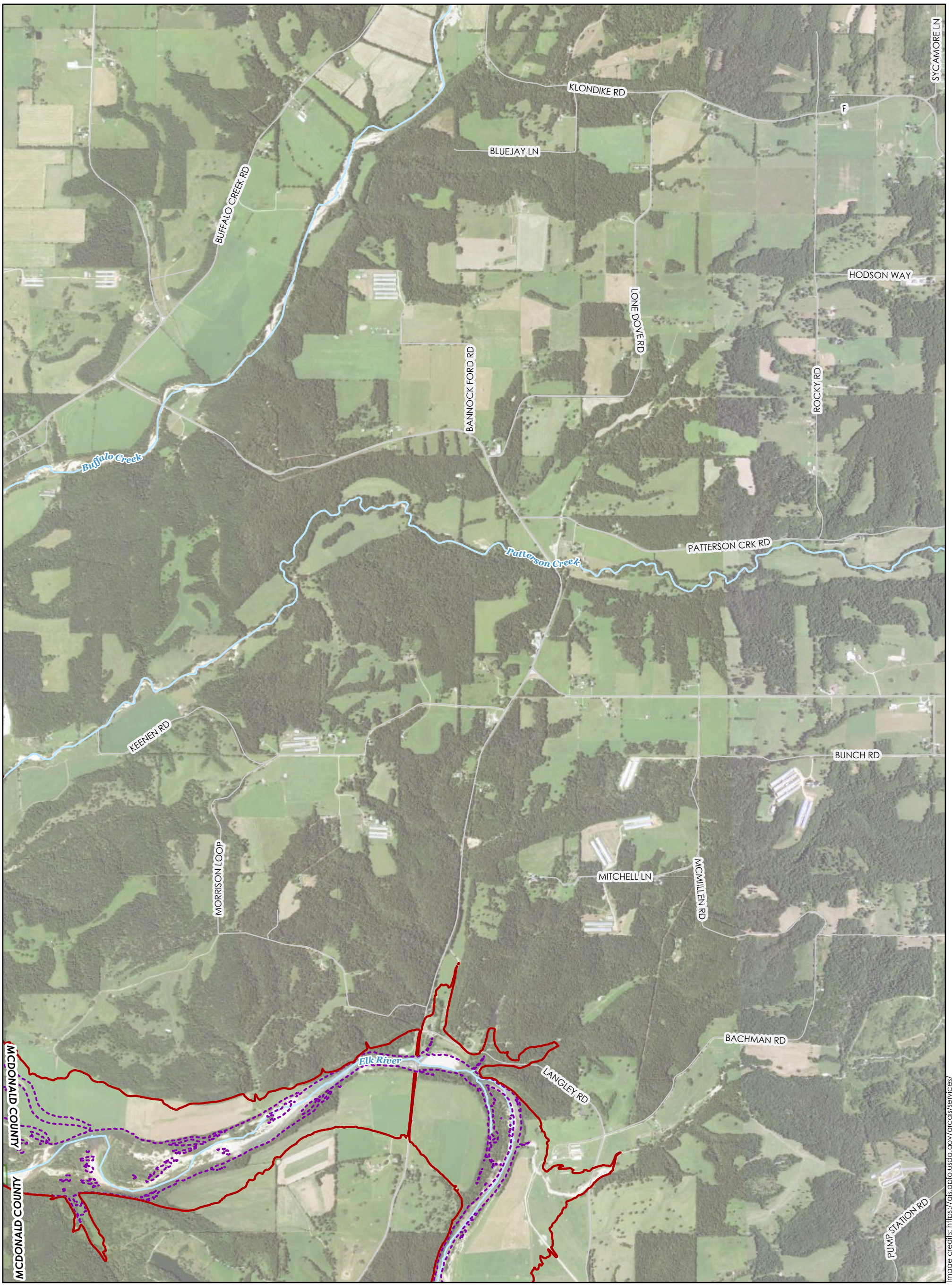
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

**PENSACOLA DAM
GRAND RIVER DAM AUTHORITY**

MAP: E7

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

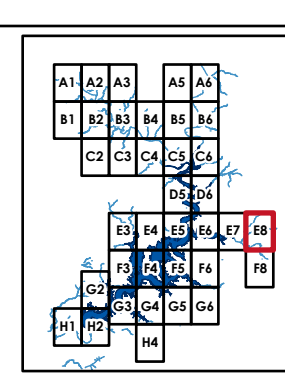


**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**

NORTH

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

1 inch = 2,000 feet



DEC 2015 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

Interstate	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

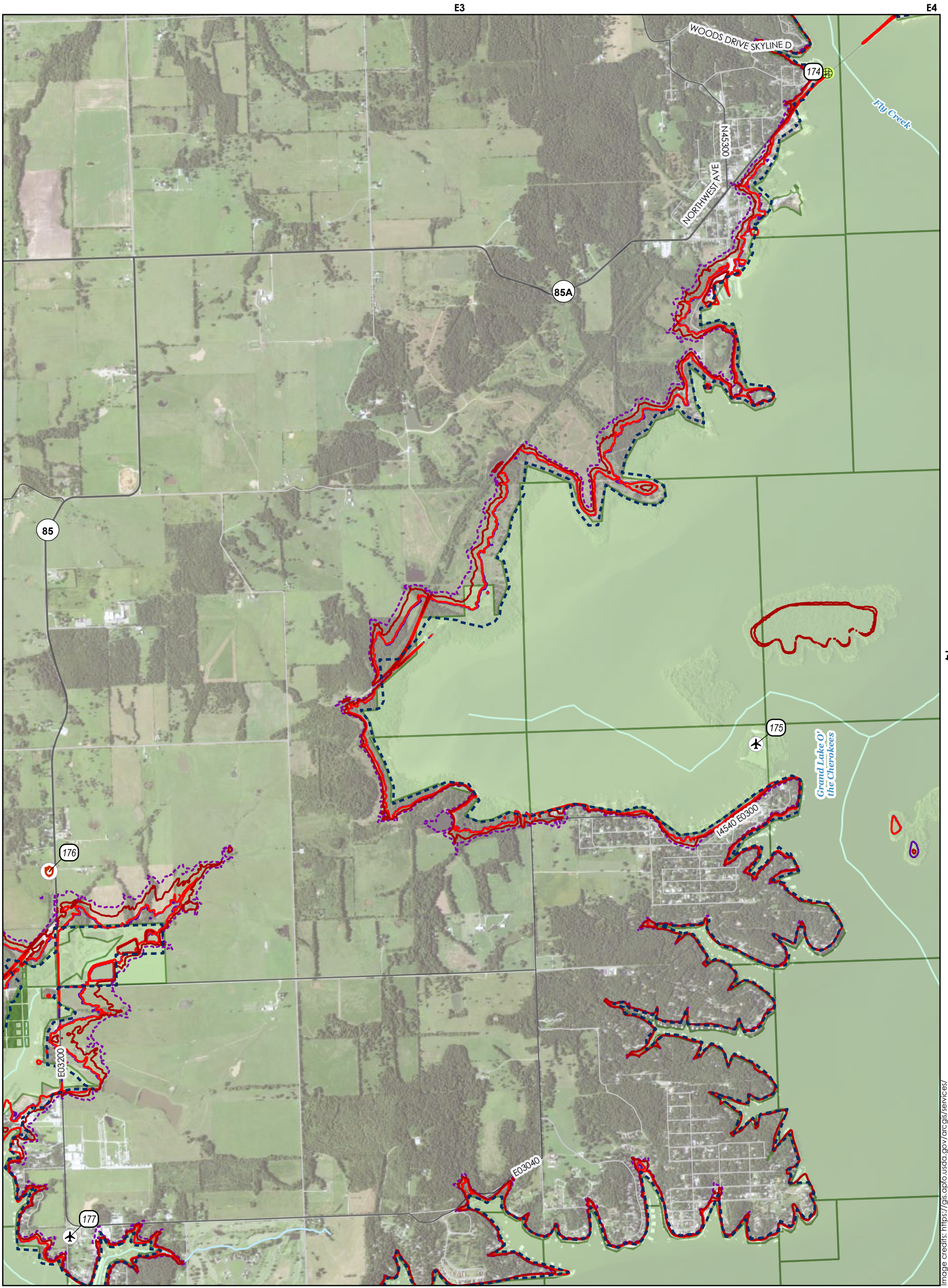
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: E8

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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

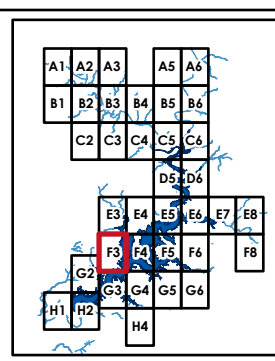


DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH

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

1 inch = 2,000 feet



DEC 2015 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

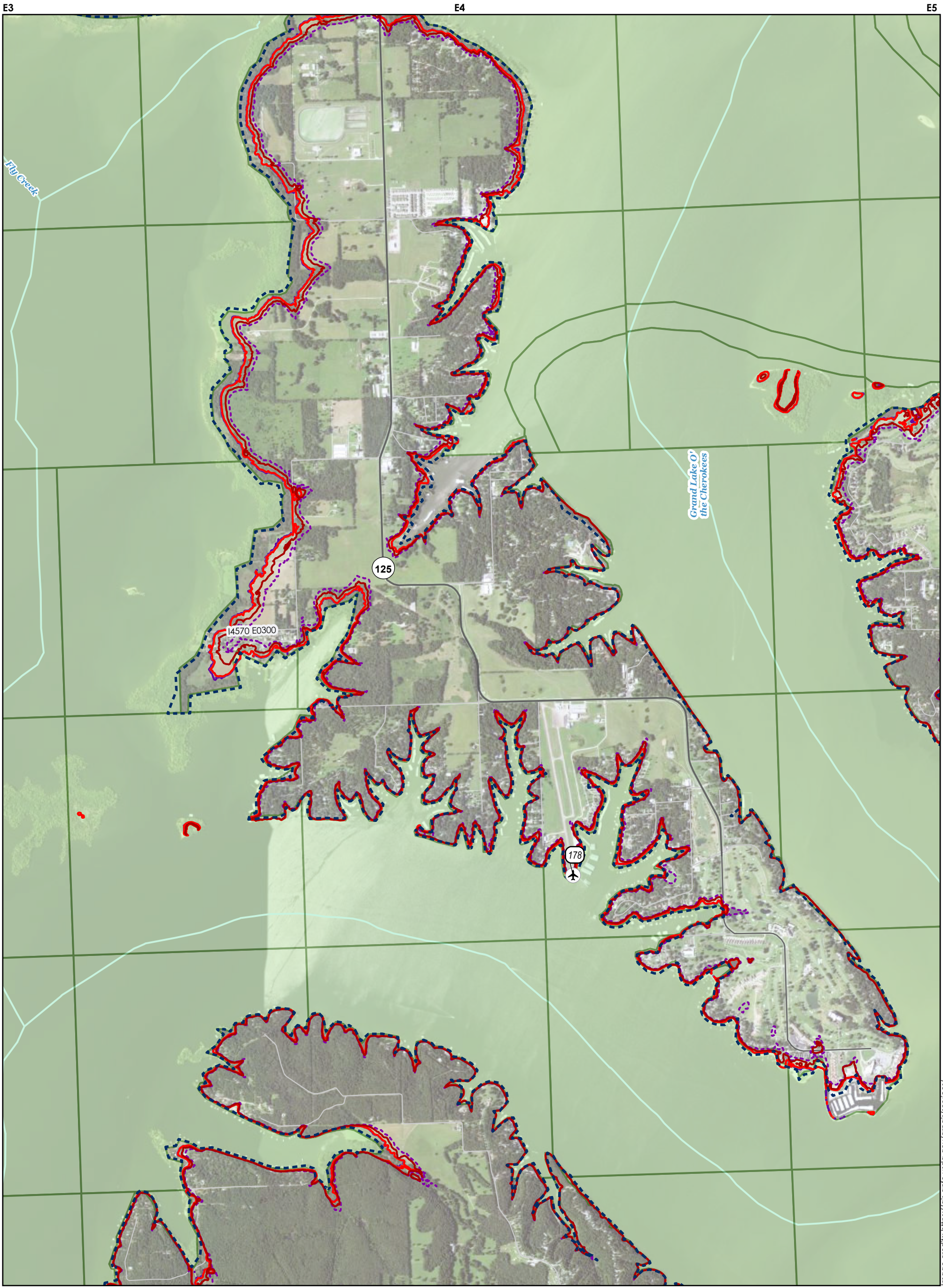
MAP: F3

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

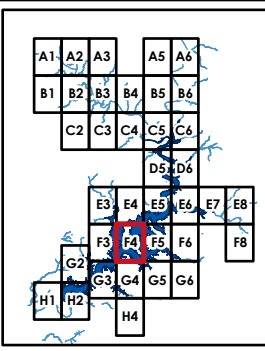
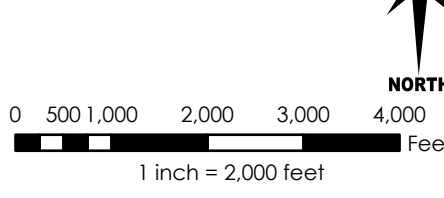
FERC No. 1494
 September 2022

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 and the Critical Infrastructure symbols.



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	+ Railroad
— State Highway	— Stream
— US Highway	- - - Flowage Easements
— Major Collector	- - - Project Boundary
— Local Road	█ GRDA Ownership

MAP AND LEGEND NOTES

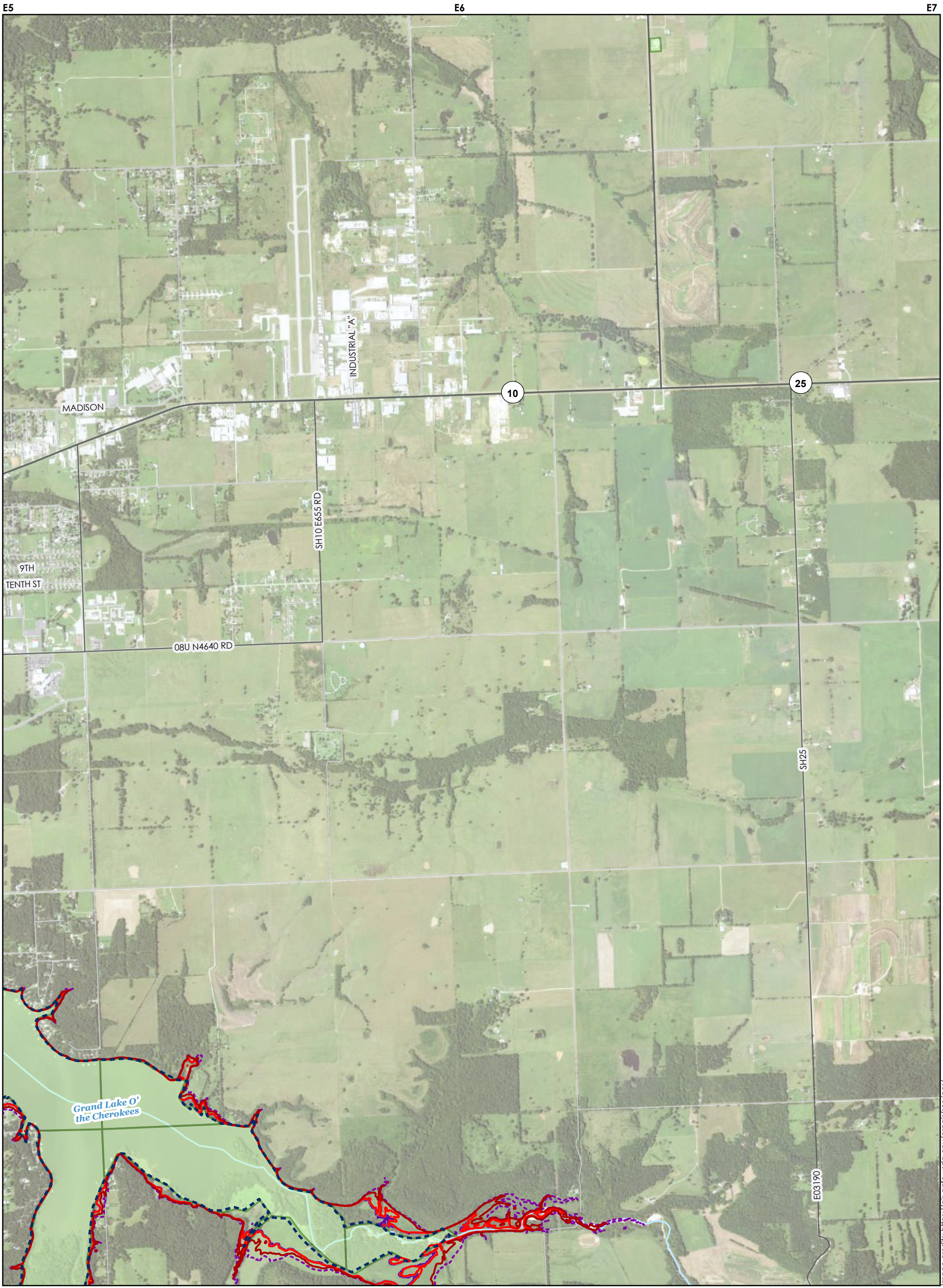
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

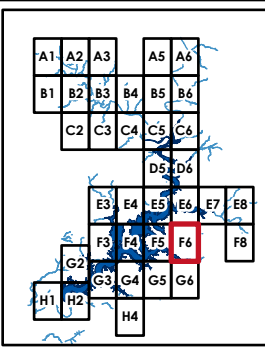
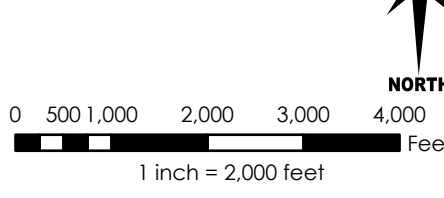
MAP: F4

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

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



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	

ROAD CLASS

Interstate
State Highway
US Highway
Major Collector
Local Road

Railroad
Stream
Flowage Easements
Project Boundary
GRDA Ownership

MAP AND LEGEND NOTES

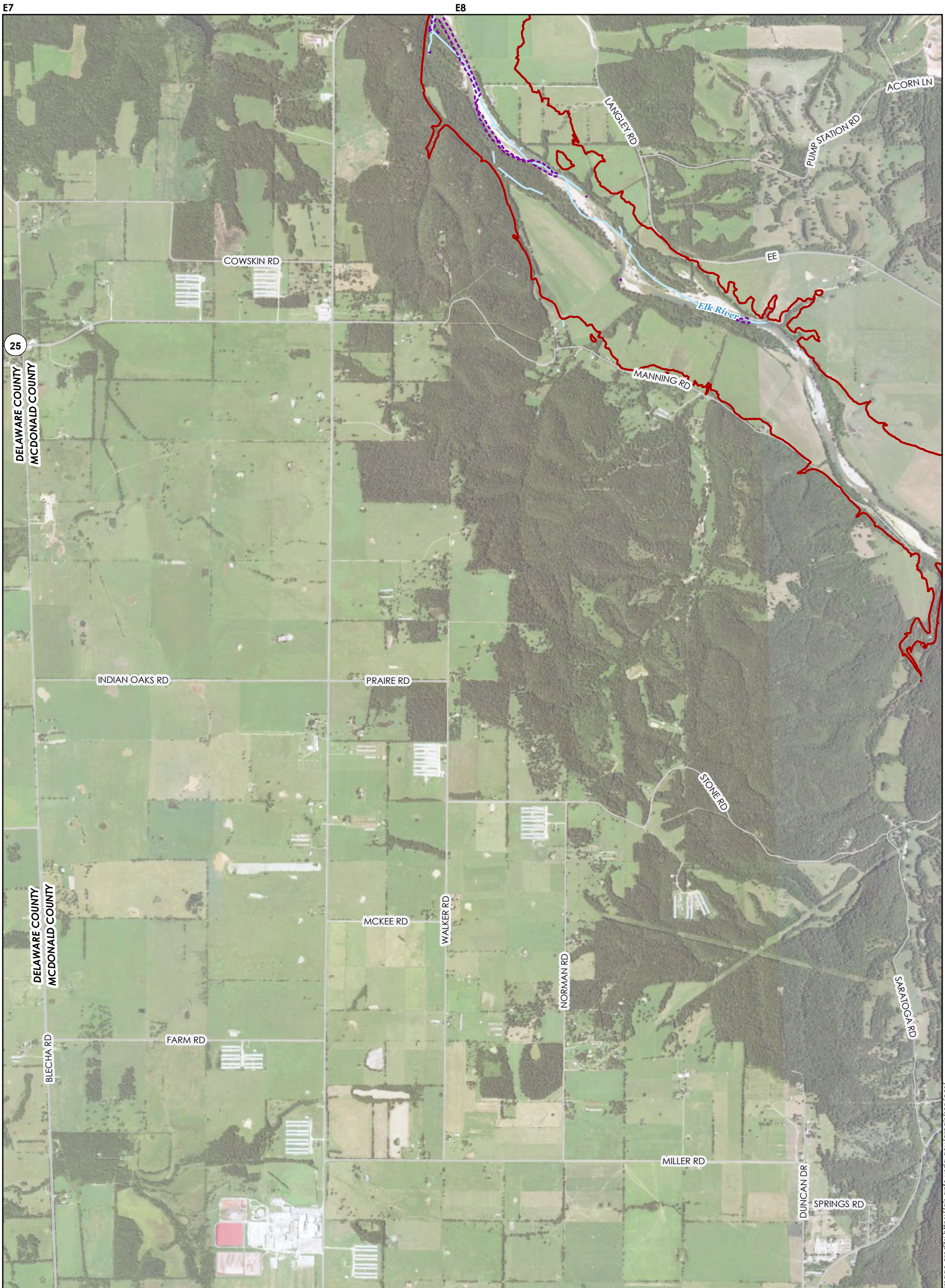
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: F6

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

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

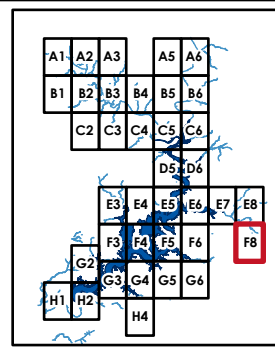


DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH

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

1 inch = 2,000 feet



DEC 2015 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	Symbol
Interstate	Blue line with red border
State Highway	Red line
US Highway	Orange line
Major Collector	Grey line
Local Road	Thin grey line
Railroad	Yellow cross-ticks
Stream	Blue line
Flowage Easements	Dashed purple line
Project Boundary	Blue dashed line
GRDA Ownership	Green shaded area

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 and the Critical Infrastructure symbols.

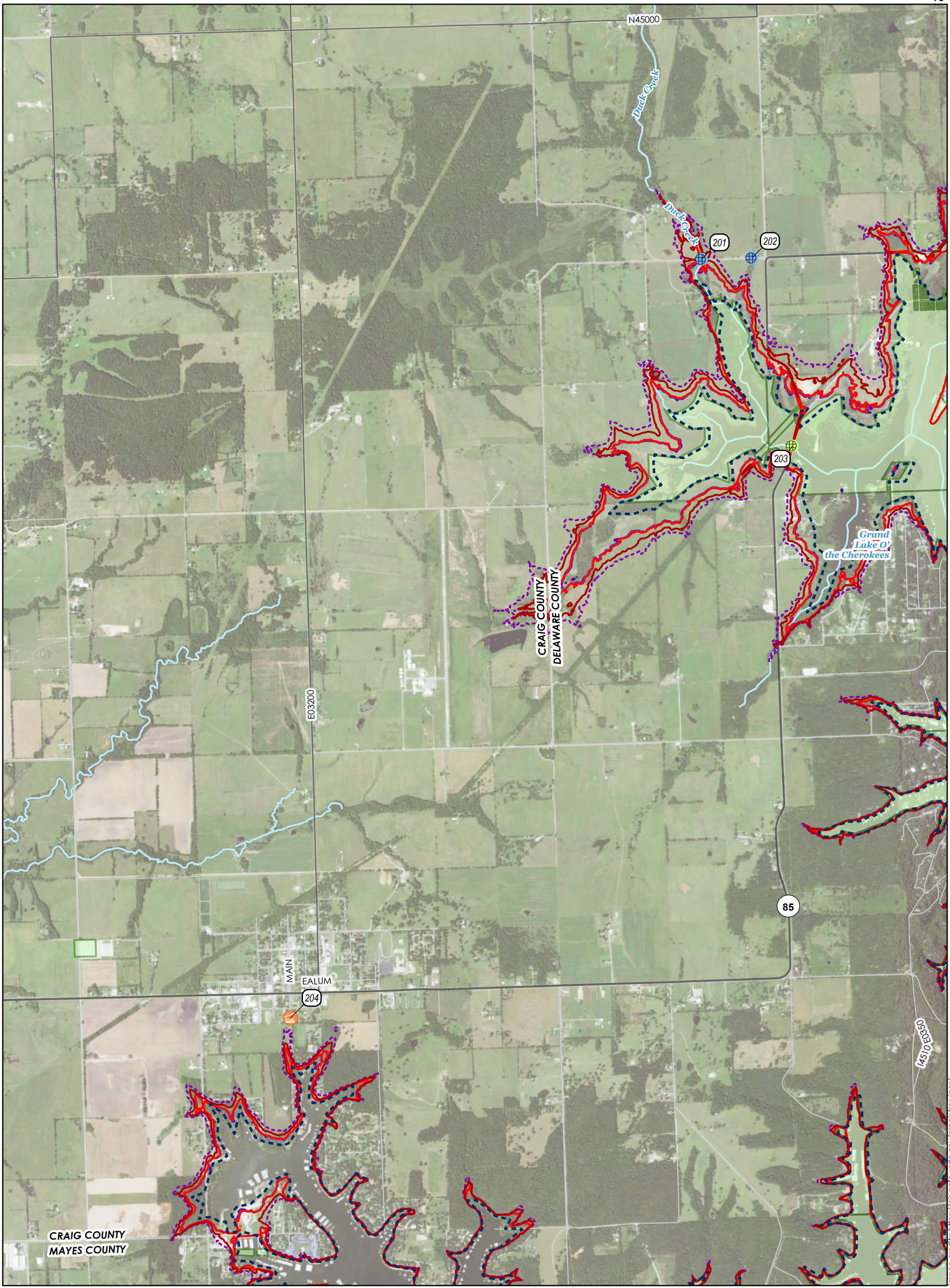
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: F8

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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



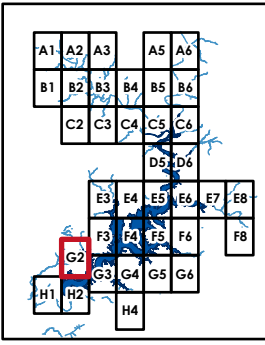
H1 H2 H3 G1 G2 G3

DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH ↑

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

1 inch = 2,000 feet



DEC 2015 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	742.0 ft PD
744.0 ft PD	734.0 ft PD

Legend

Interstate	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

MAP AND LEGEND NOTES

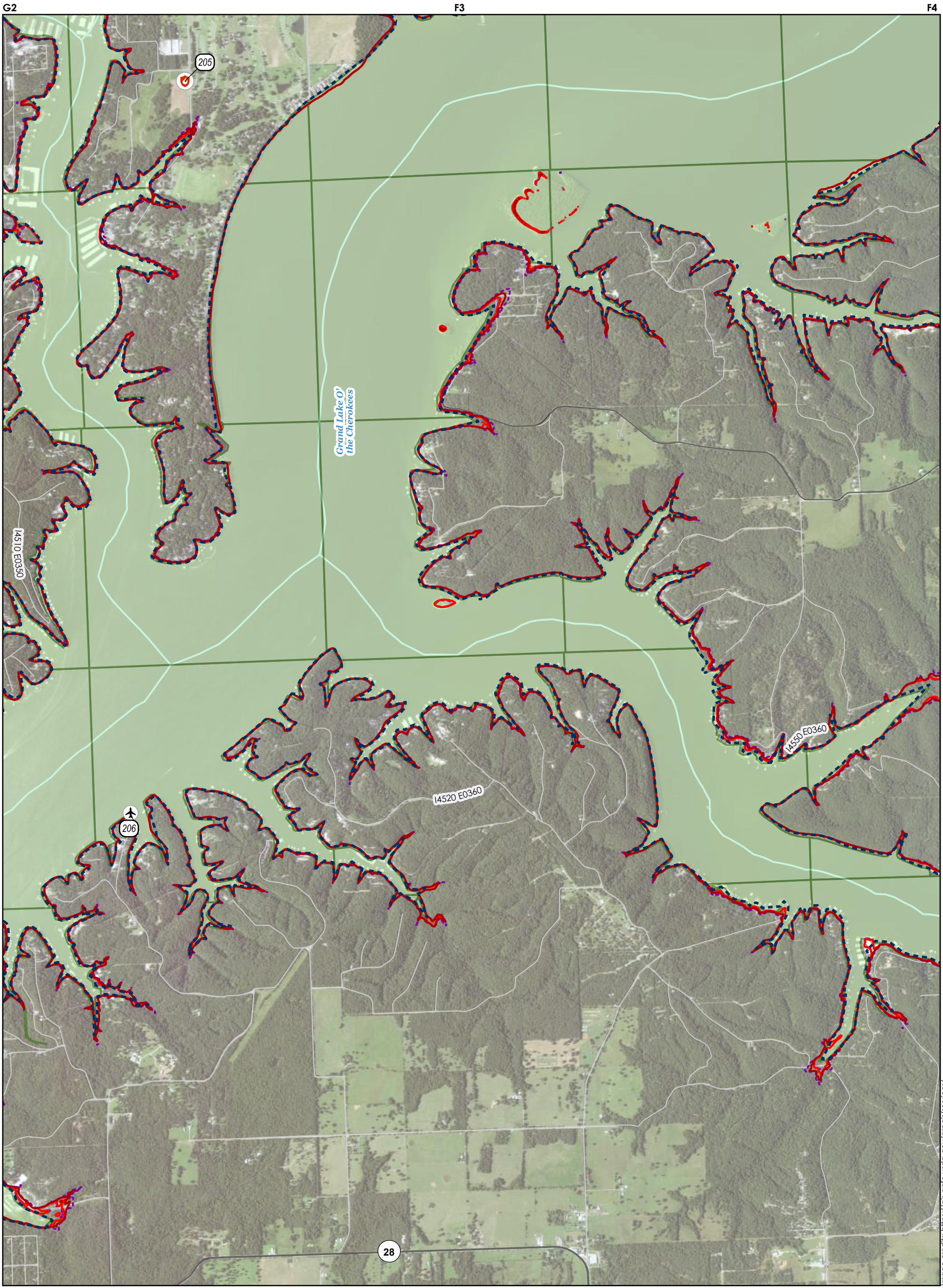
- For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
- See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: G2

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

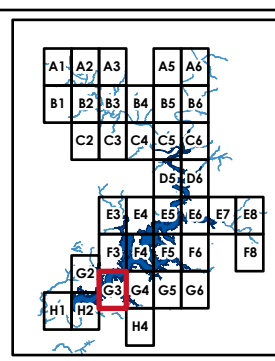


DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH ↑

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

1 inch = 2,000 feet



DEC 2015 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

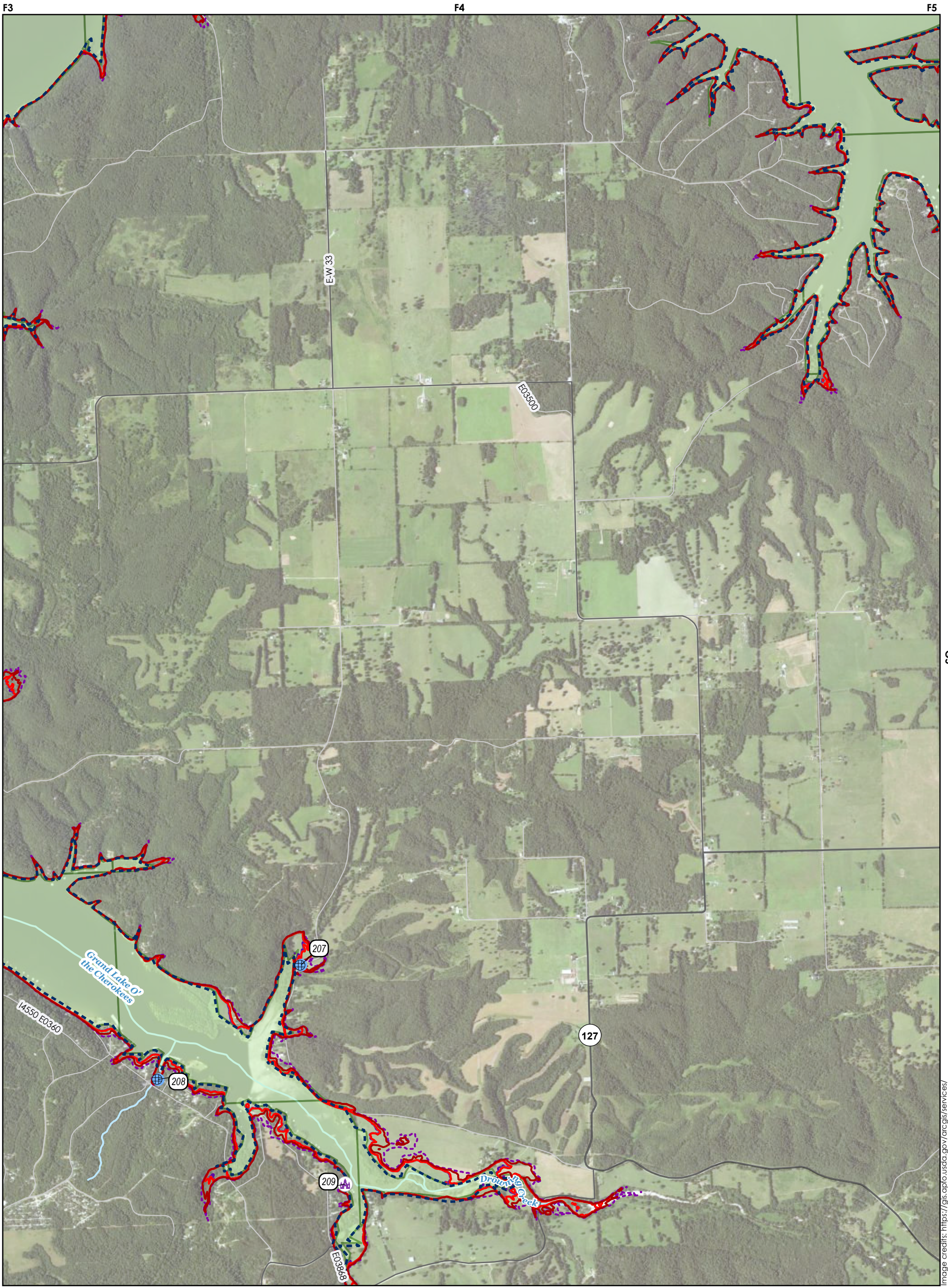
PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

MAP: G3

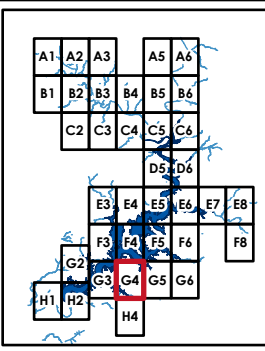
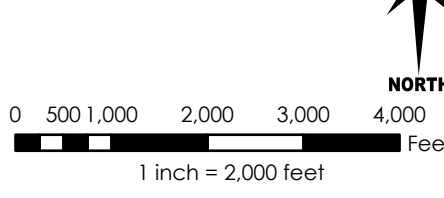
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022

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



DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)



DEC 2015 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	

ROAD CLASS	
Interstate	US Highway
State Highway	Major Collector
Local Road	

Railroad	Stream
Flowage Easements	Project Boundary
GRDA Ownership	

MAP AND LEGEND NOTES

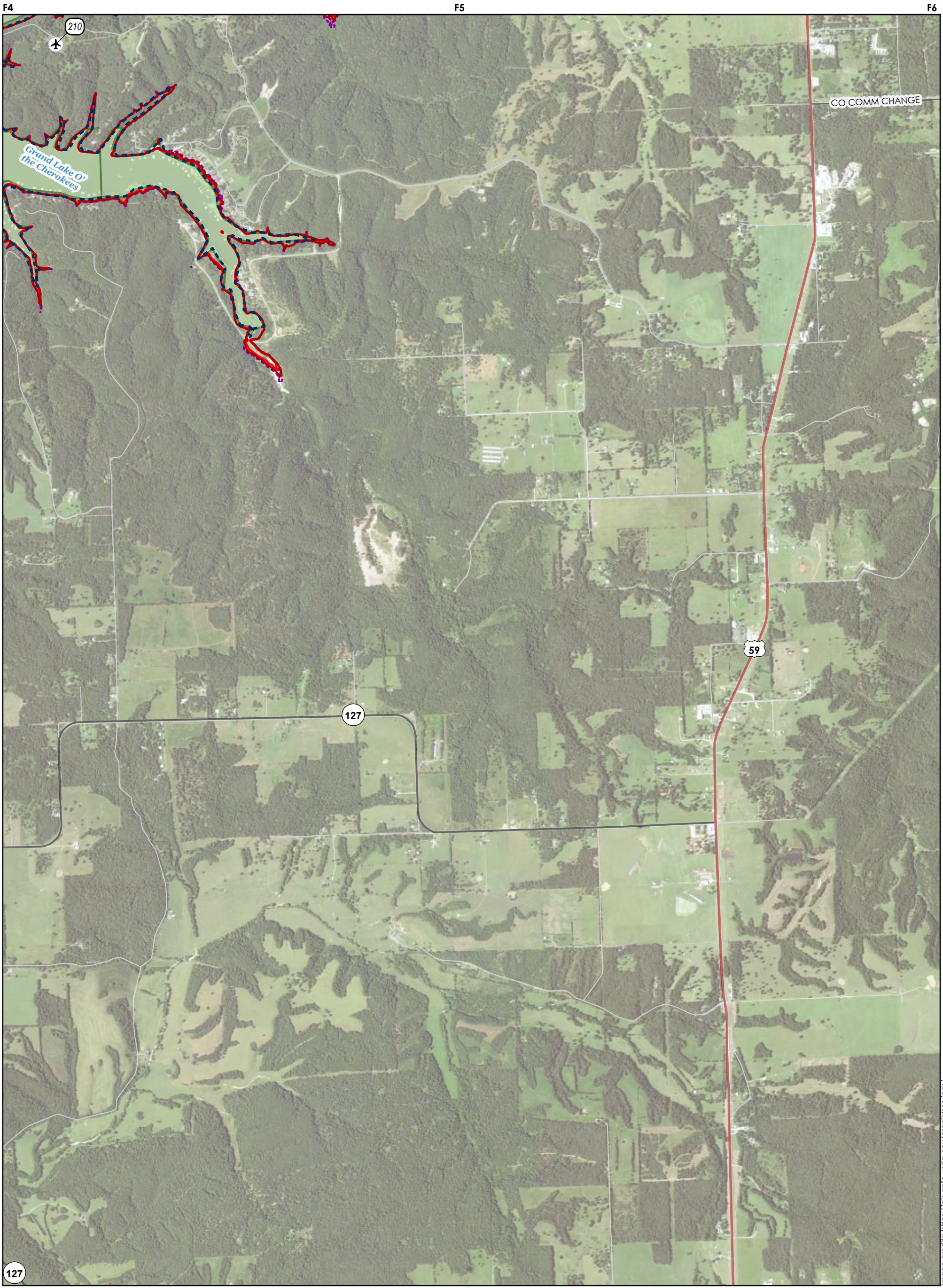
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources and the Critical Infrastructure symbols.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: G4

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

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

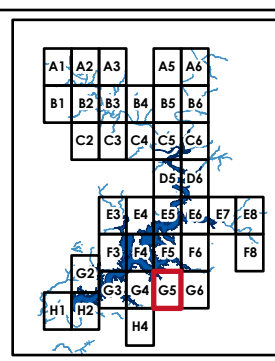


DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH ↑

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

1 inch = 2,000 feet



DEC 2015 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

Interstate	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: G5

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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

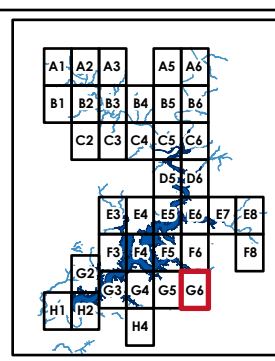


DECEMBER 2015 INUNDATION SCENARIO (15-YEAR EVENT)

NORTH ↑

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

1 inch = 2,000 feet



DEC 2015 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	—	Railroad
State Highway	—	Stream
US Highway	—	Flowage Easements
Major Collector	—	Project Boundary
Local Road	—	GRDA Ownership

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 and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: G6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

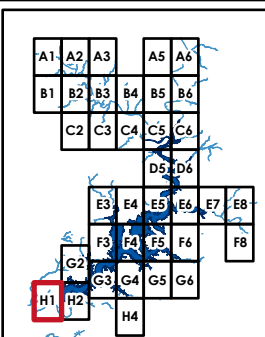
Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer_2014



**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



0 500 1,000 2,000 3,000 4,000
Feet
1 inch = 2,000 feet



DEC 2015 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 and the Critical Infrastructure symbols.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

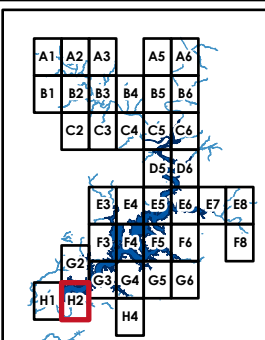
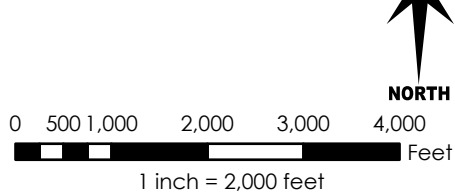
MAP: H1

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



DEC 2015 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	Railroad
State Highway	Flowage Easements	Stream
US Highway	Project Boundary	Flowage Easements
Major Collector	GRDA Ownership	Project Boundary
Local Road		GRDA Ownership

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 and the Critical Infrastructure symbols.

**PENSACOLA DAM
GRAND RIVER DAM AUTHORITY**

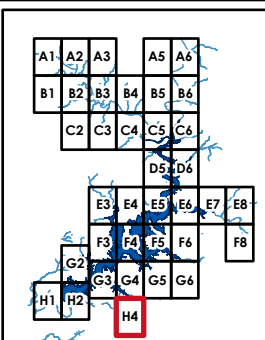
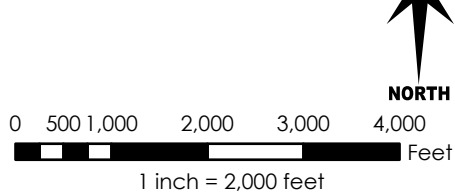
MAP: H2

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

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



**DECEMBER 2015
INUNDATION SCENARIO
(15-YEAR EVENT)**



DEC 2015 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
	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

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 and the Critical Infrastructure symbols.

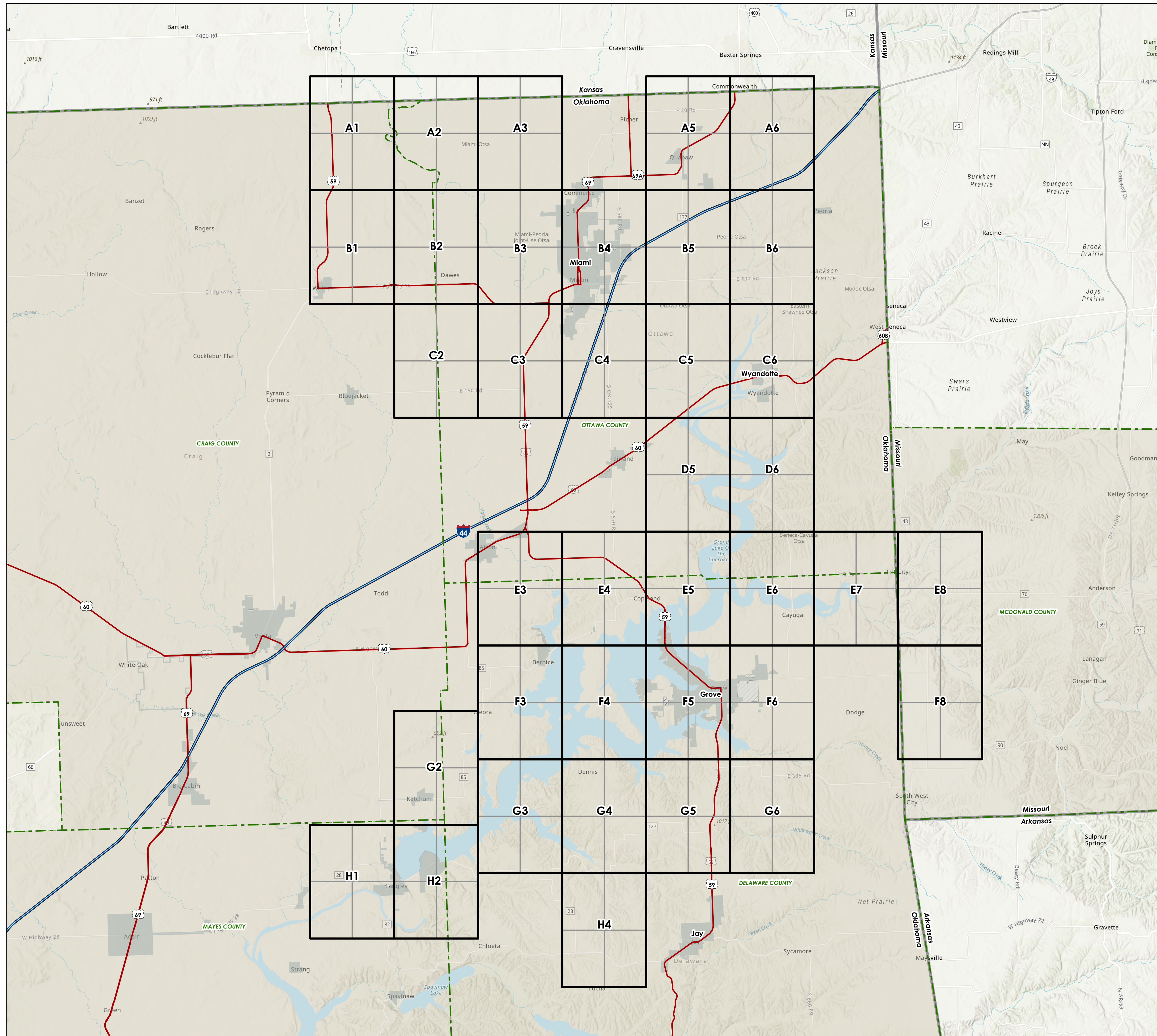
**PENSACOLA DAM
GRAND RIVER DAM AUTHORITY**

MAP: H4

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

Upstream Model Results Overview Map

Pensacola Dam
GRAND RIVER DAM AUTHORITY
September 2022

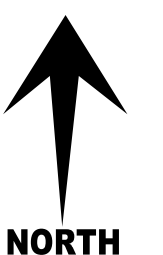
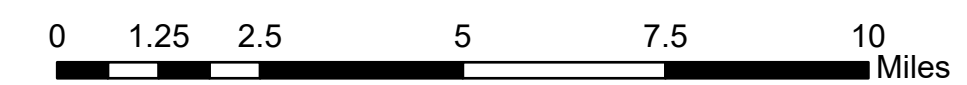
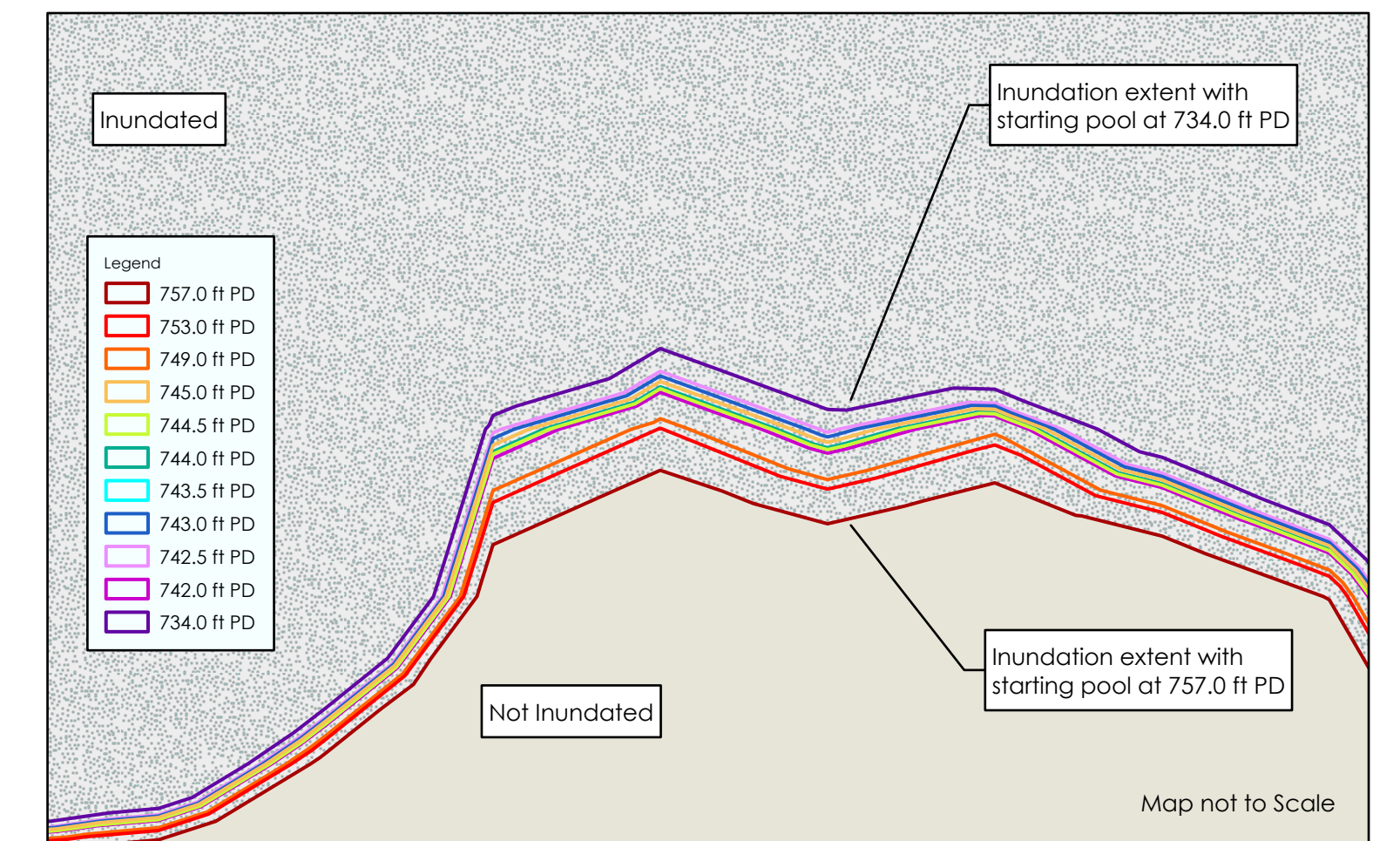


Overview Map Legend

- 1:24,000-scale Map Sheet
- State Boundary
- 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: 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:

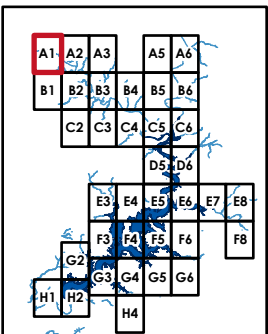
1. Base map images from https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019
2. Transportation network (major roads, local roads, and railroads) and county boundaries obtained from the Oklahoma Office of Geographic Information (<http://okmaps.org/cgi/search.aspx>).
3. Parcels owned by GRDA are from GIS parcel data provided by County Assessor's Offices (2020).
4. The displayed Flowage Easement is equal to the 760-foot NGVD29 elevation contour, extracted from 2011 Dewberry LIDAR.



100-YEAR INUNDATION SCENARIO



0 500 1,000 2,000 3,000 4,000 Feet
1 inch = 2,000 feet



100-YEAR 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

Legend

- █ ROAD CLASS
 - █ Interstate
 - █ State Highway
 - █ US Highway
 - █ Major Collector
 - █ Local Road
- + Railroad
- Stream
- - - Flowage Easements
- █ Project Boundary
- █ GRDA Ownership

MAP AND LEGEND NOTES

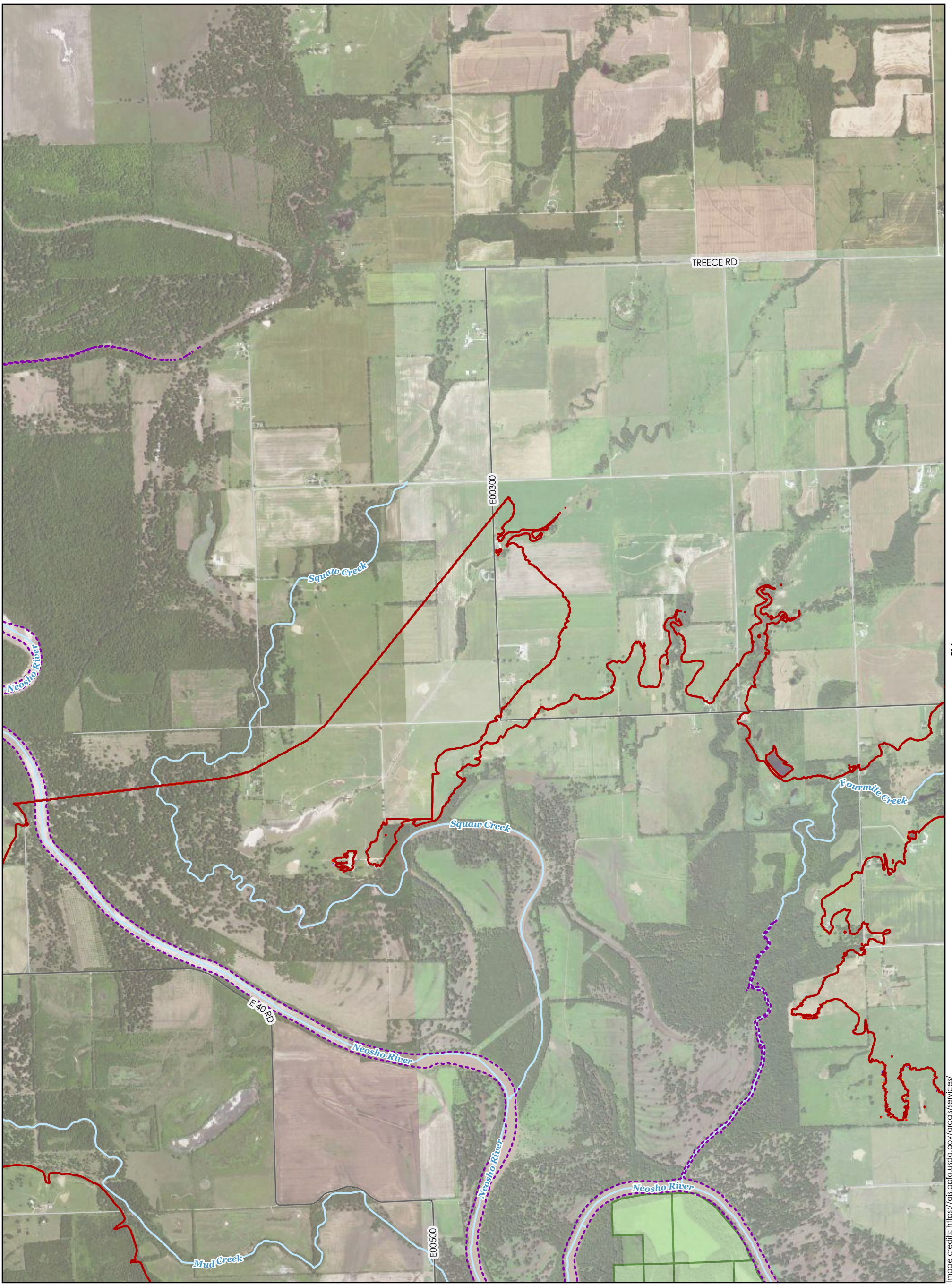
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

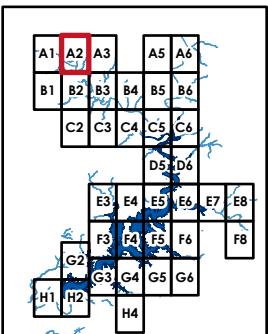
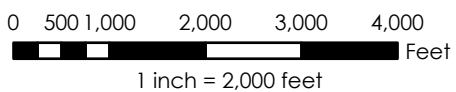
MAP: A1

CRAIG, DELAWARE, MAYES, AND OTTAWA 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
	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

MAP AND LEGEND NOTES

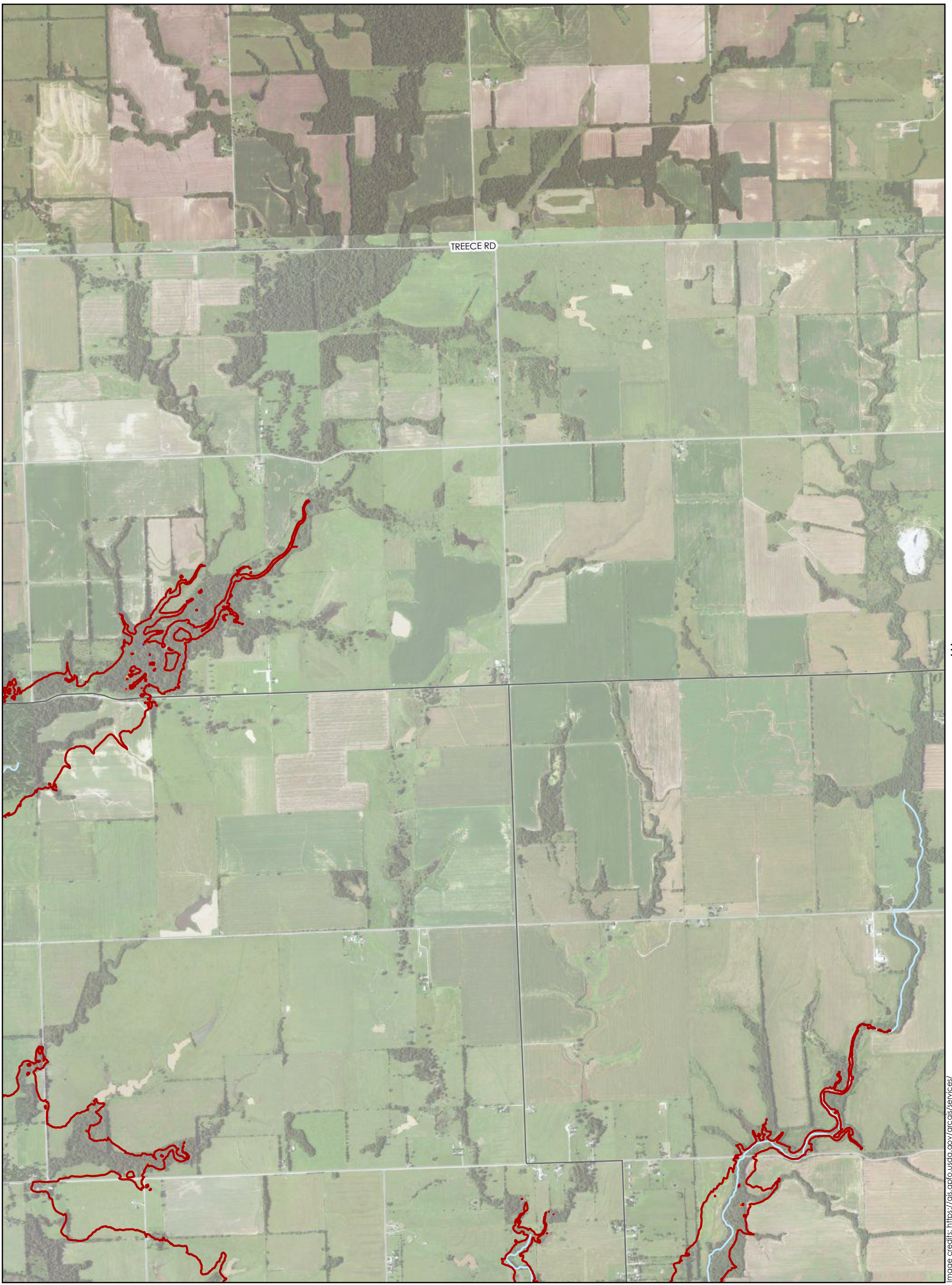
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

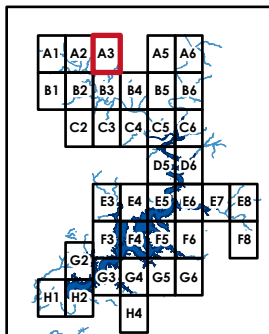
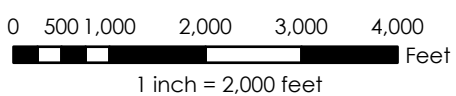
MAP: A2

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

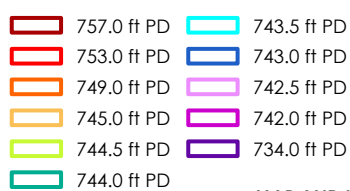
FERC No. 1494
September 2022



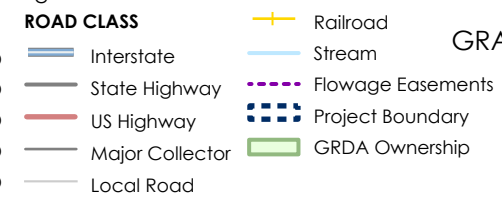
100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION



Legend



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 GRAND RIVER DAM AUTHORITY

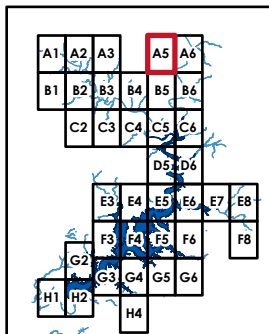
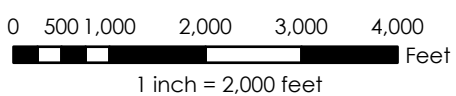
MAP: A3

CRAIG, DELAWARE, MAYES, AND OTTAWA 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

Railroad
Stream
Flowage Easements
Project Boundary
GRDA Ownership

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 GRAND RIVER DAM AUTHORITY

MAP: A5

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

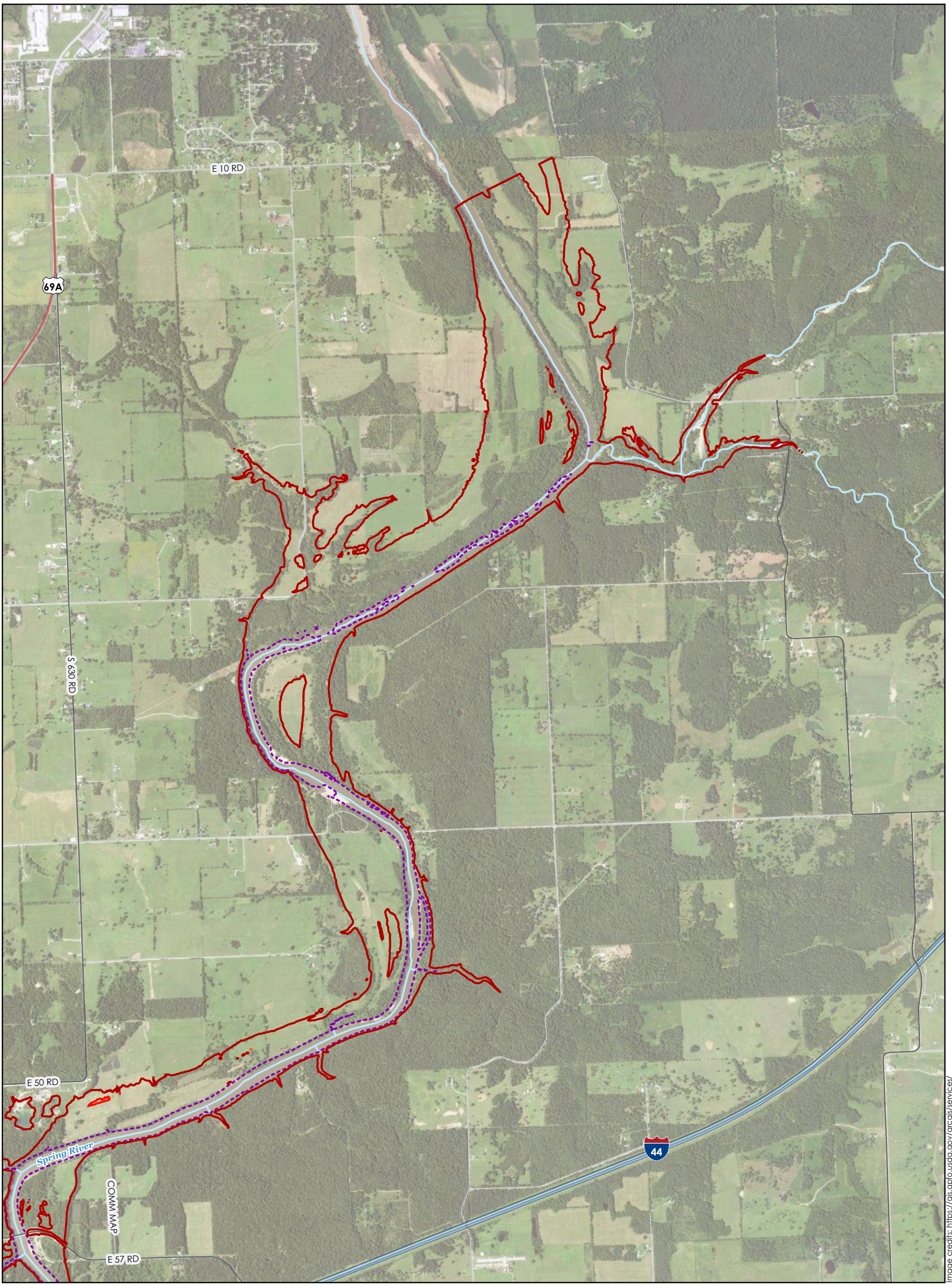


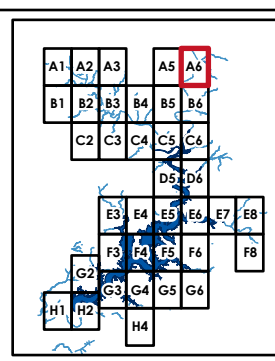
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

100-YEAR INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



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

- Railroad
- Stream
- Flowage Easements
- Project Boundary
- GRDA Ownership

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.

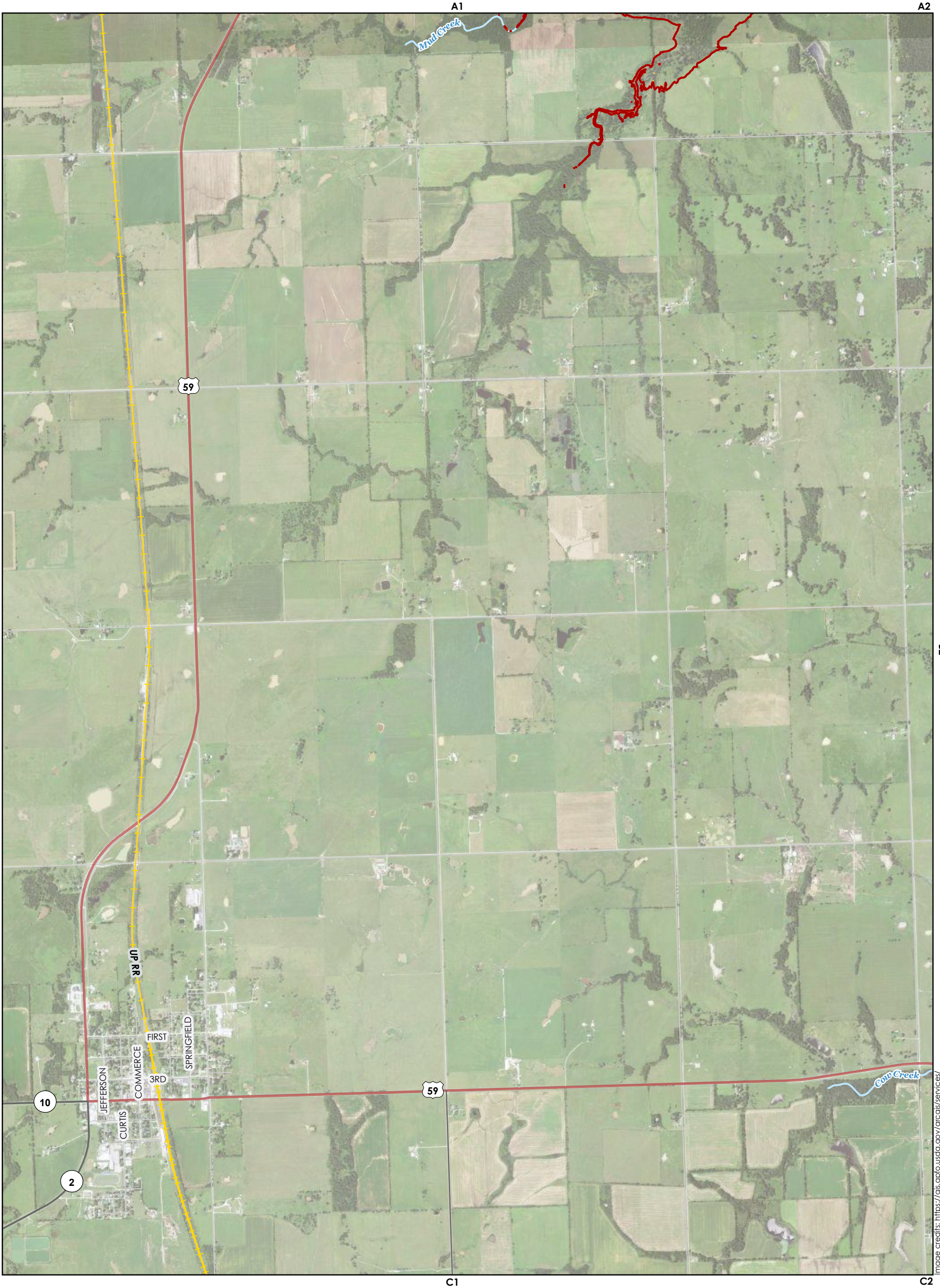
PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

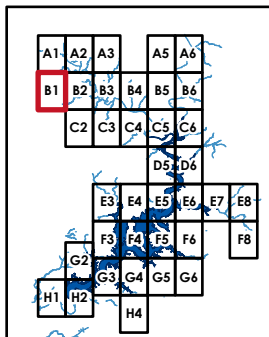
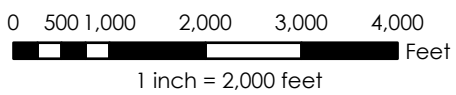
MAP: A6

CRAIG, DELAWARE, MAYES, AND OTTAWA 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
	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

MAP AND LEGEND NOTES

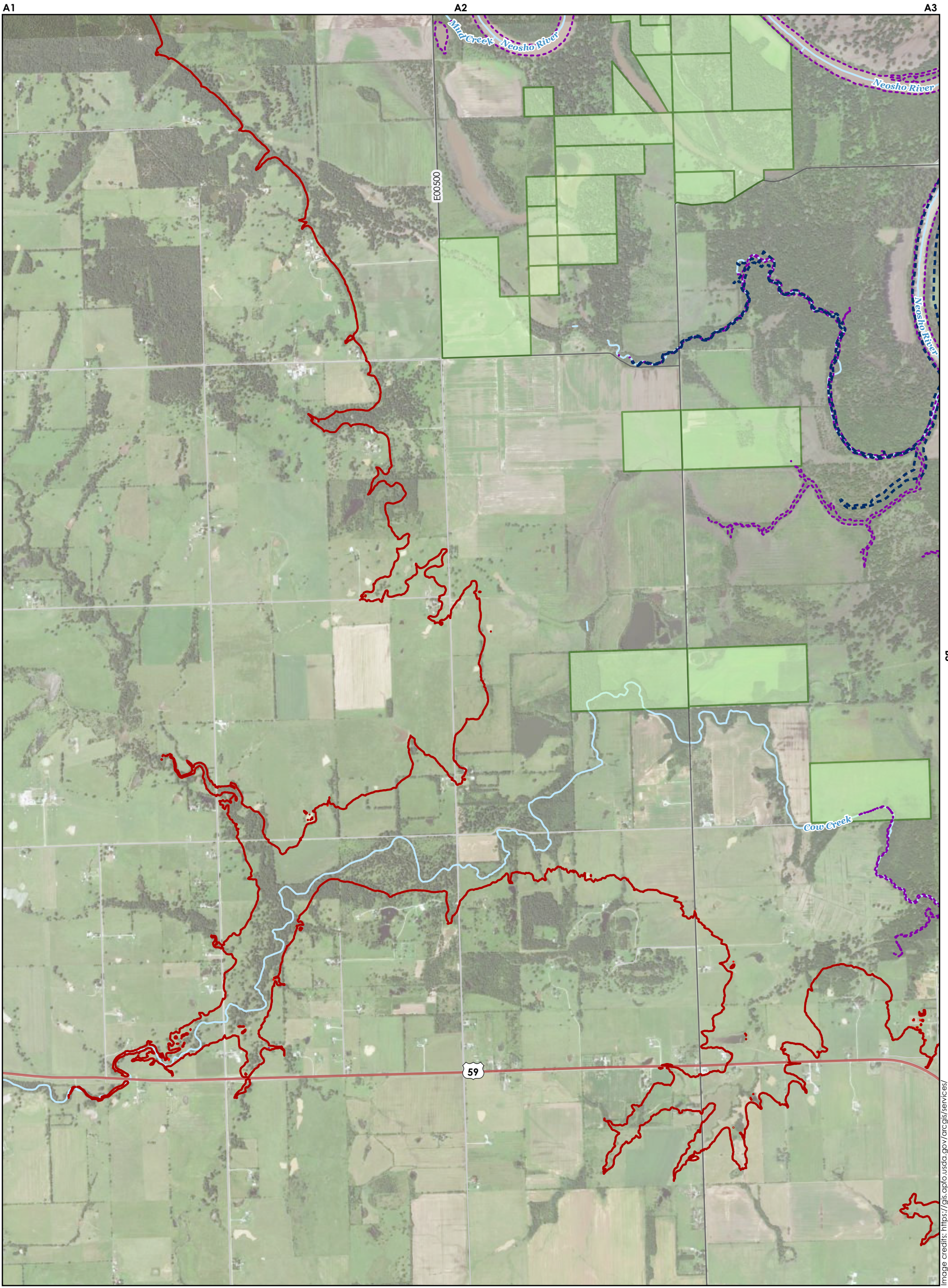
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: B1

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



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

 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

 Interstate	+ Railroad
 State Highway	— Stream
 US Highway	 Flowage Easements
 Major Collector	 Project Boundary
 Local Road	 GRDA Ownership

PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

MAP: B2

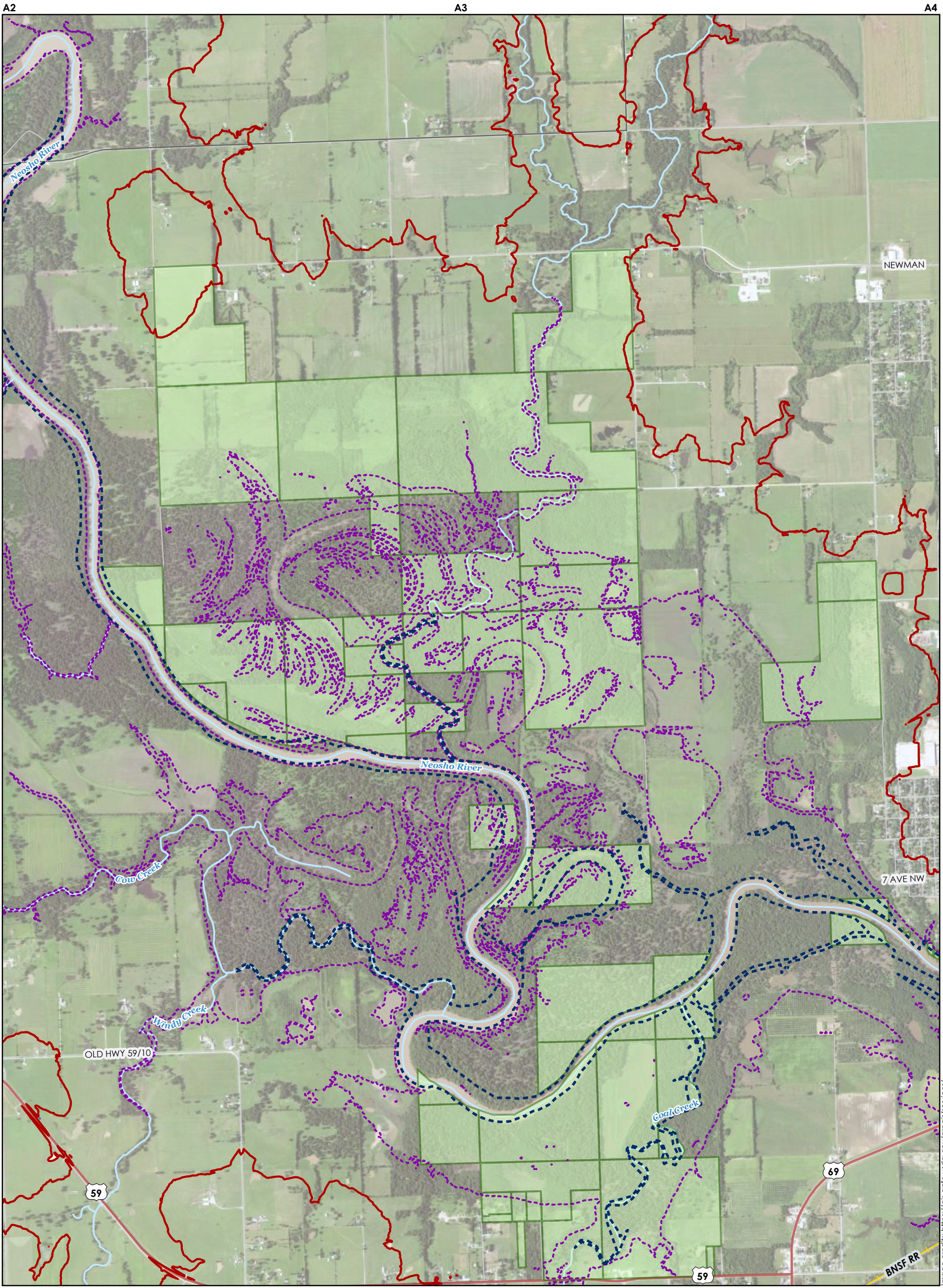
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

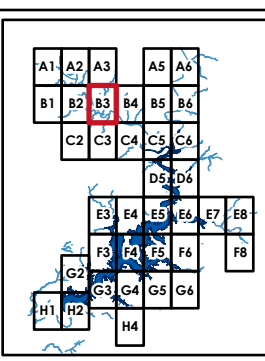
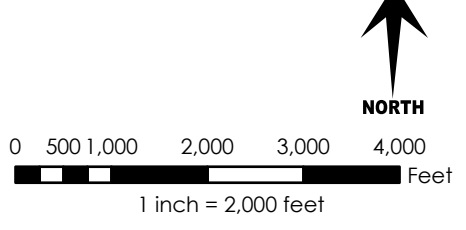
MAP AND LEGEND NOTES

- 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.

Image credits: https://gis.dplbo.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	

ROAD CLASS	
— Interstate	— Stream
— State Highway	— Flowage Easements
— US Highway	- - - Project Boundary
— Major Collector	— GRDA Ownership
— Local Road	

+ Railroad
— Stream
— Flowage Easements
- - - Project Boundary
— GRDA Ownership

MAP AND LEGEND NOTES

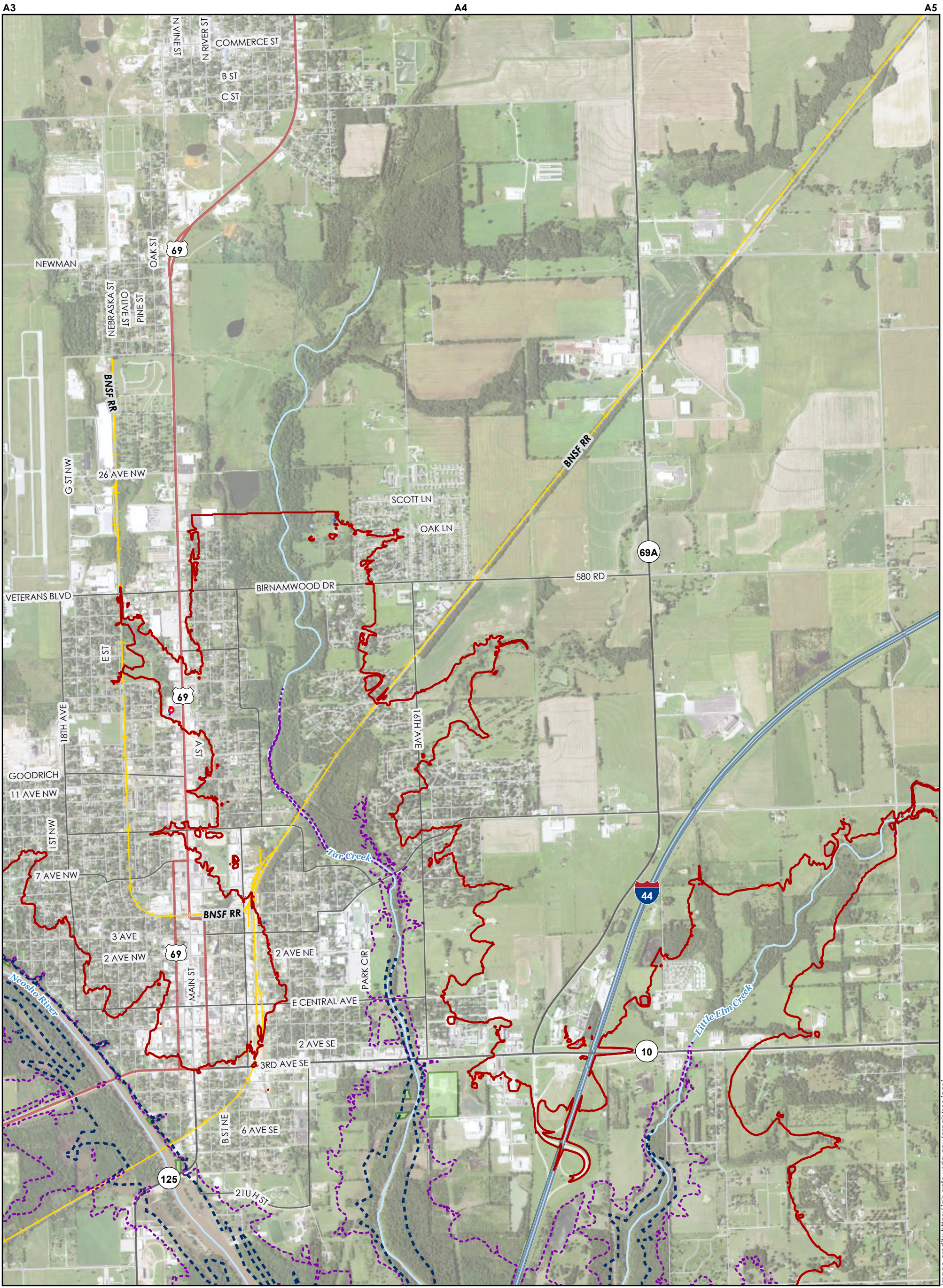
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

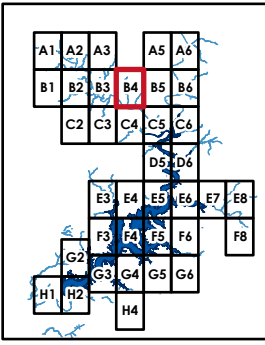
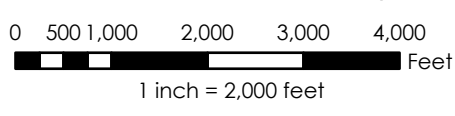
MAP: B3

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

Image credits: https://gis.dplfo.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	— Railroad
— State Highway	— Stream
— US Highway	— Flowage Easements
— Major Collector	- - - Project Boundary
— Local Road	— GRDA Ownership

MAP AND LEGEND NOTES

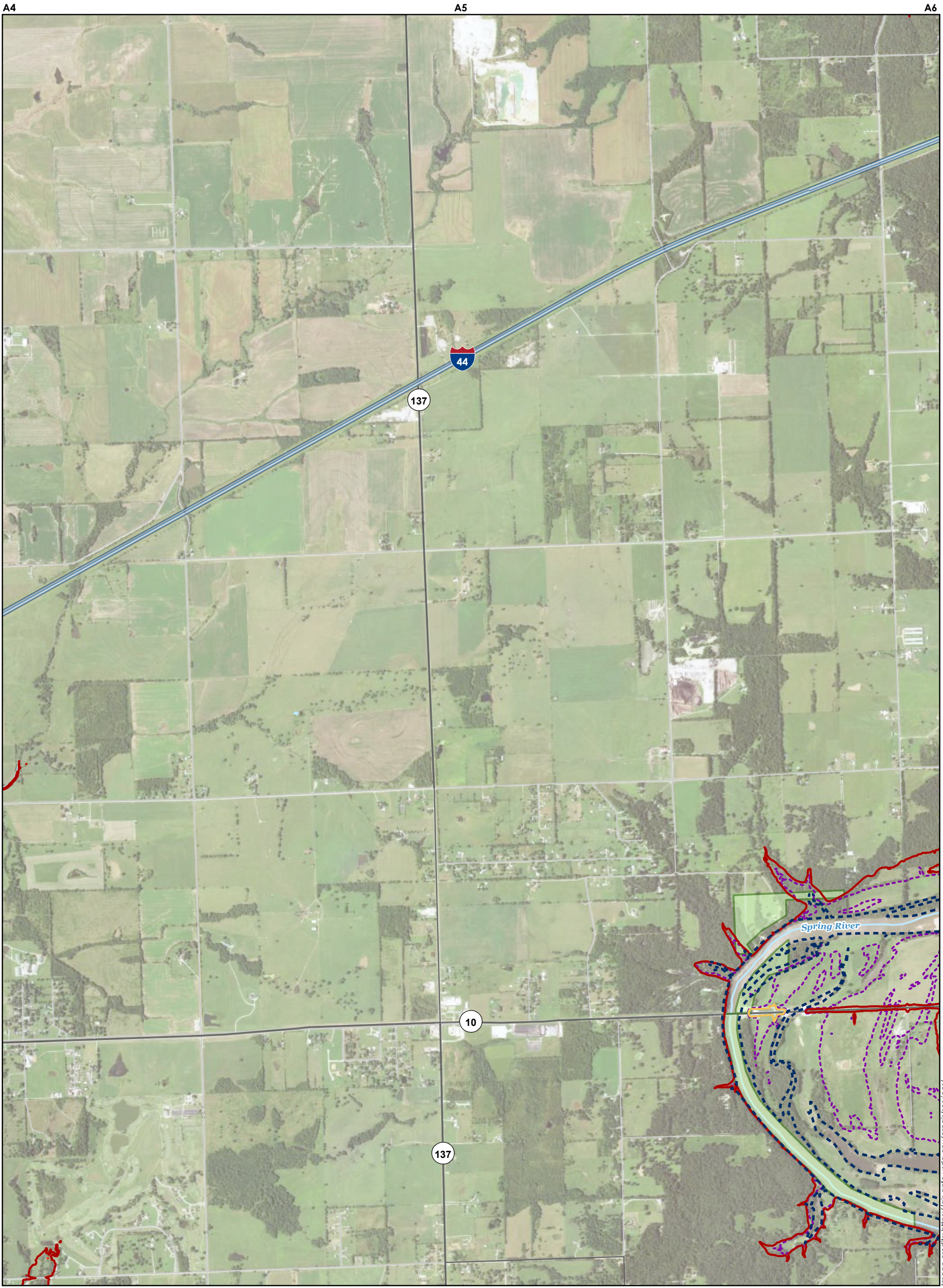
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

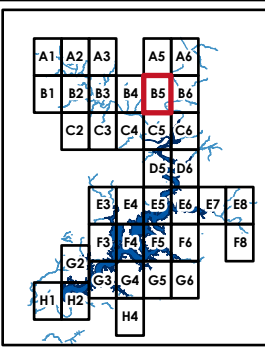
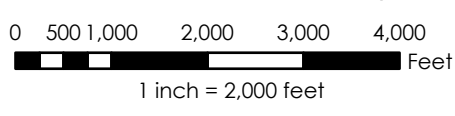
MAP: B4

CRAIG, DELAWARE, MAYES, AND OTTAWA 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

- Railroad
- Stream
- Flowage Easements
- Project Boundary
- GRDA Ownership

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: B5

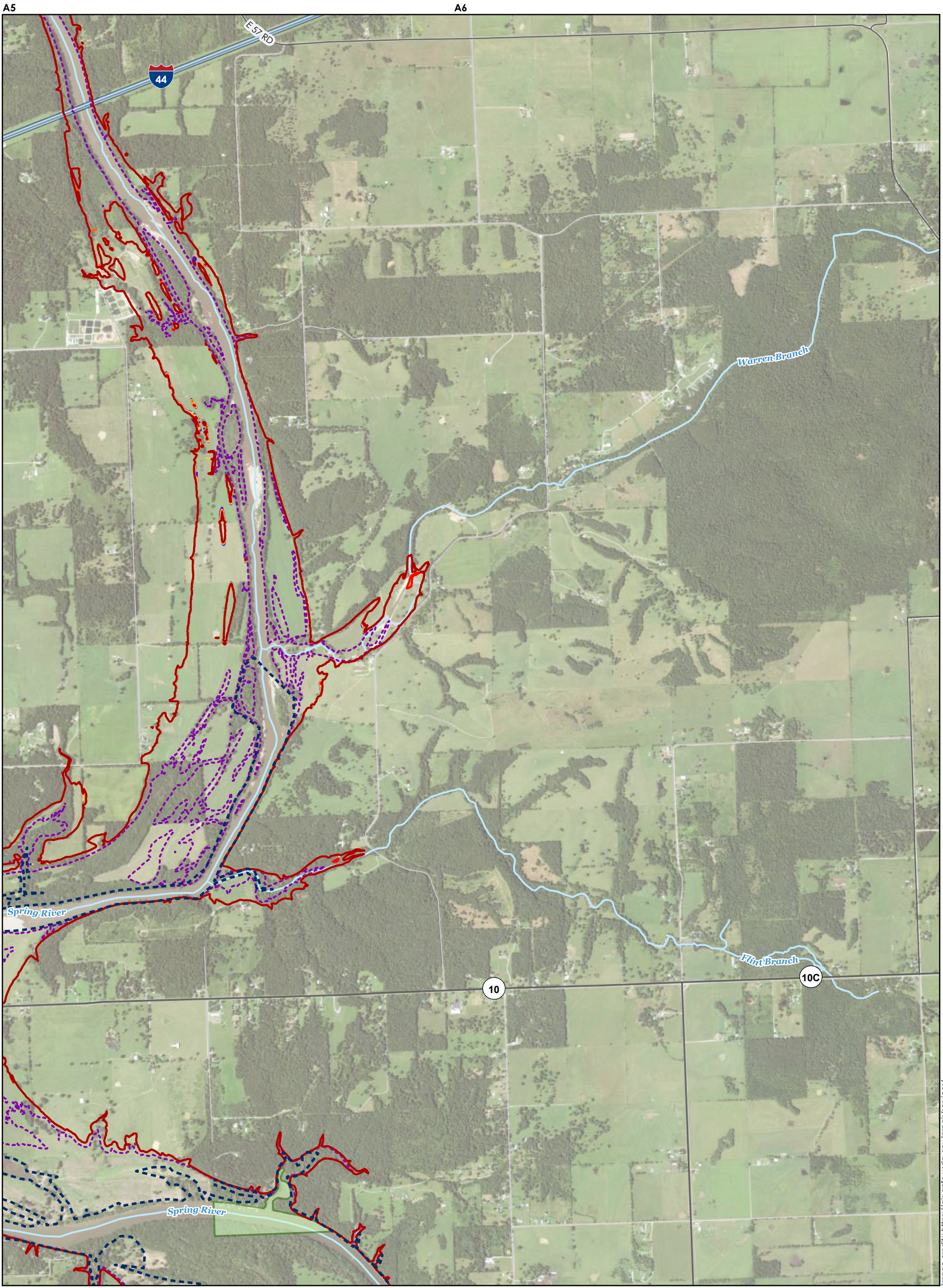
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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

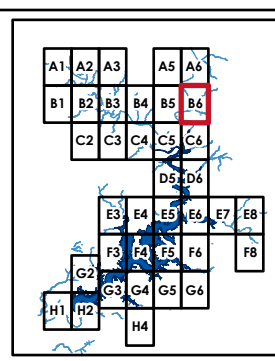


100-YEAR INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



100-YEAR MAX INUNDATION

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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

+	Railroad
—	Stream
- - -	Flowage Easements
- - -	Project Boundary
■	GRDA Ownership

PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

MAP: B6

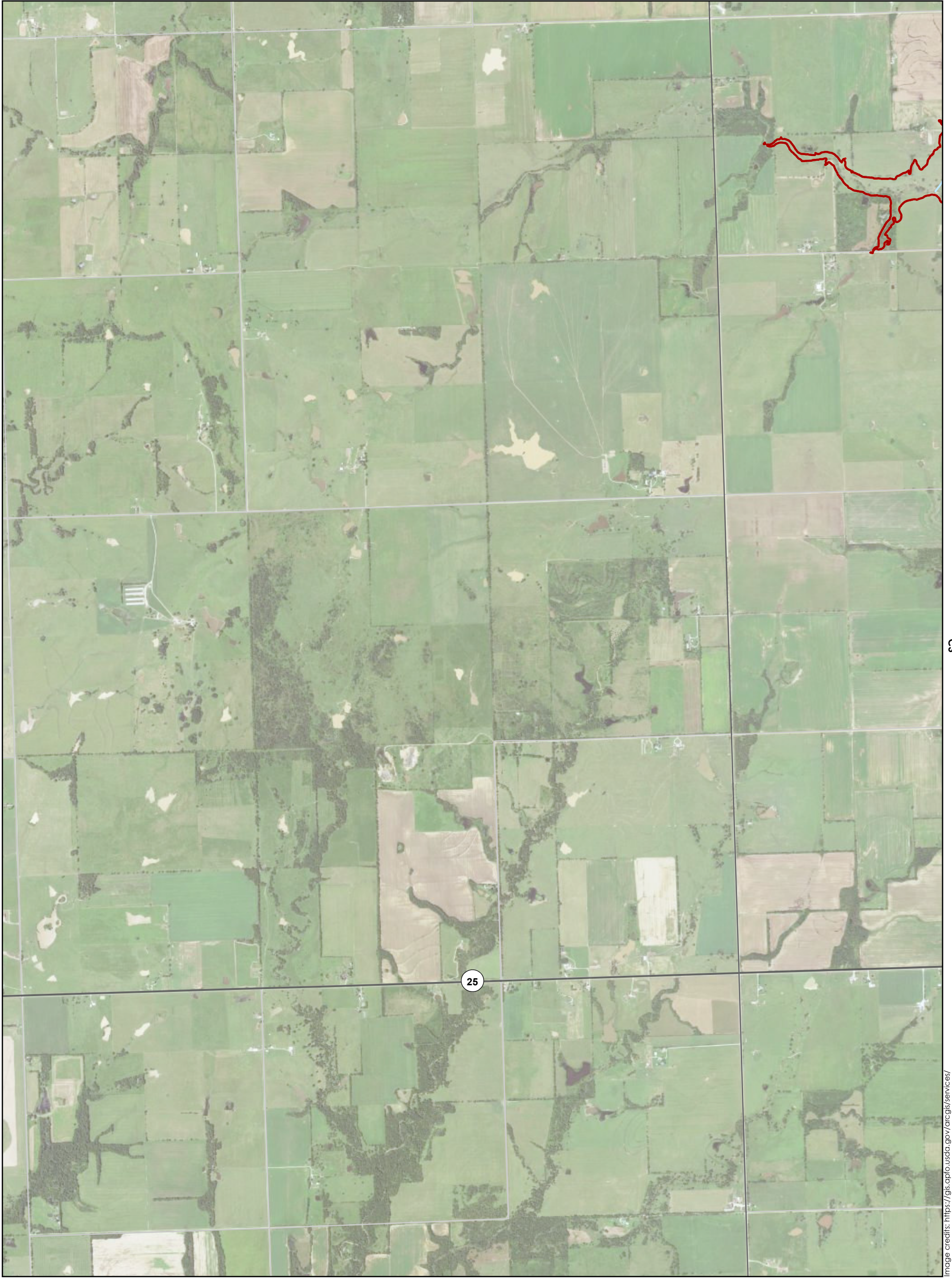
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022

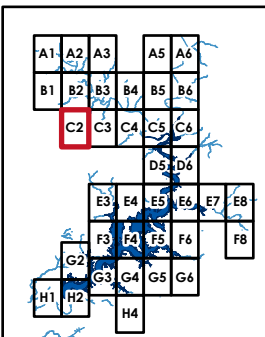
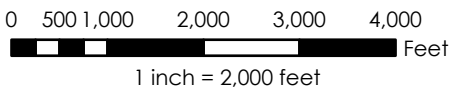
MAP AND LEGEND NOTES

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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	Major Collector
State Highway	Local Road
US Highway	

Railroad	Stream
Flowage Easements	Project Boundary
GRDA Ownership	

MAP AND LEGEND NOTES

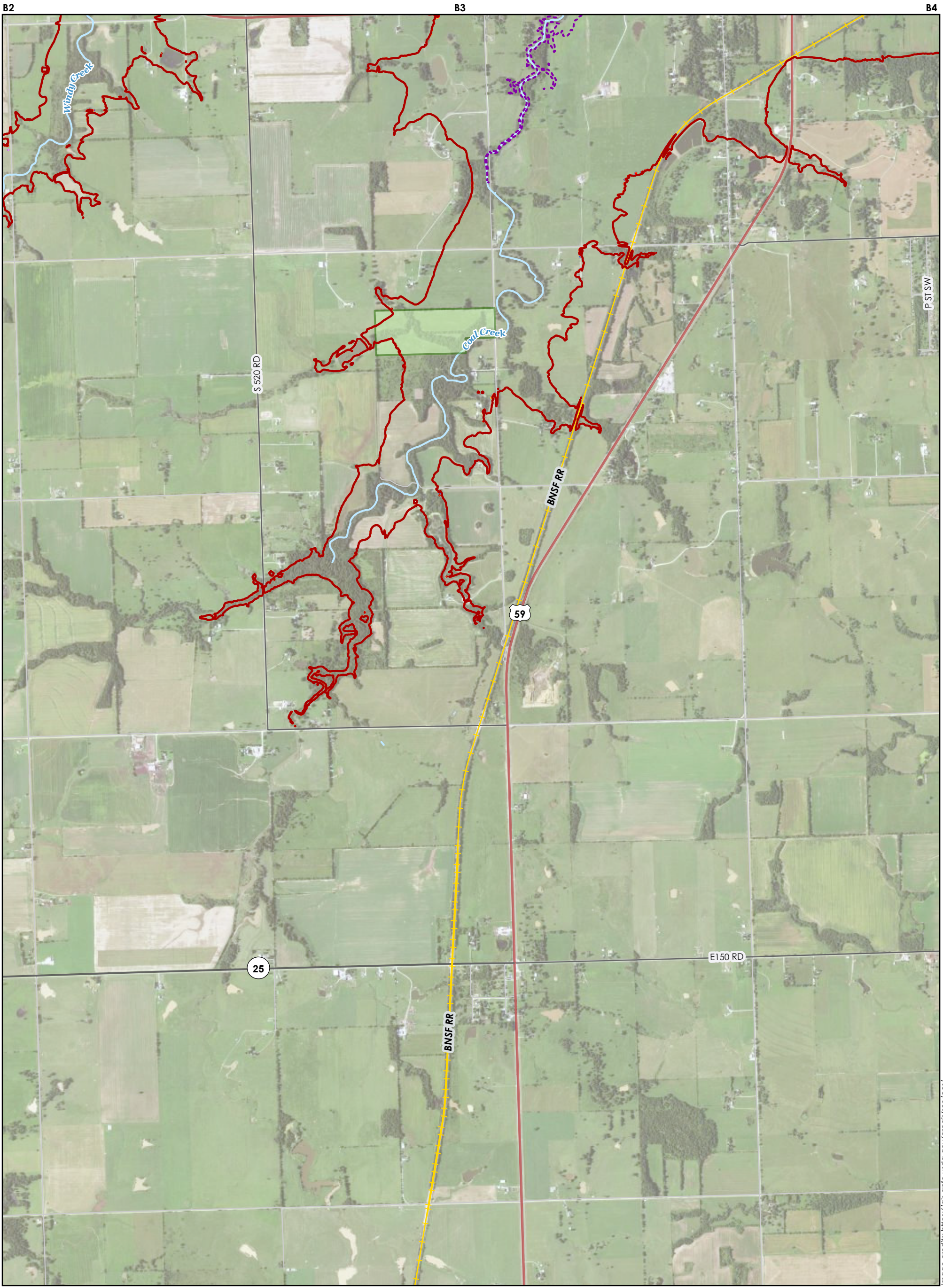
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

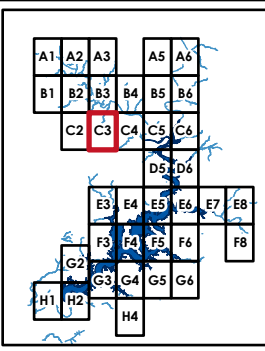
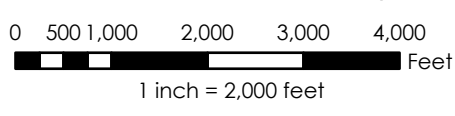
MAP: C2

CRAIG, DELAWARE, MAYES, AND
OTTAWA 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	
	Railroad
	Stream
	Interstate
	State Highway
	US Highway
	Major Collector
	Local Road
	Flowage Easements
	Project Boundary
	GRDA Ownership

MAP AND LEGEND NOTES

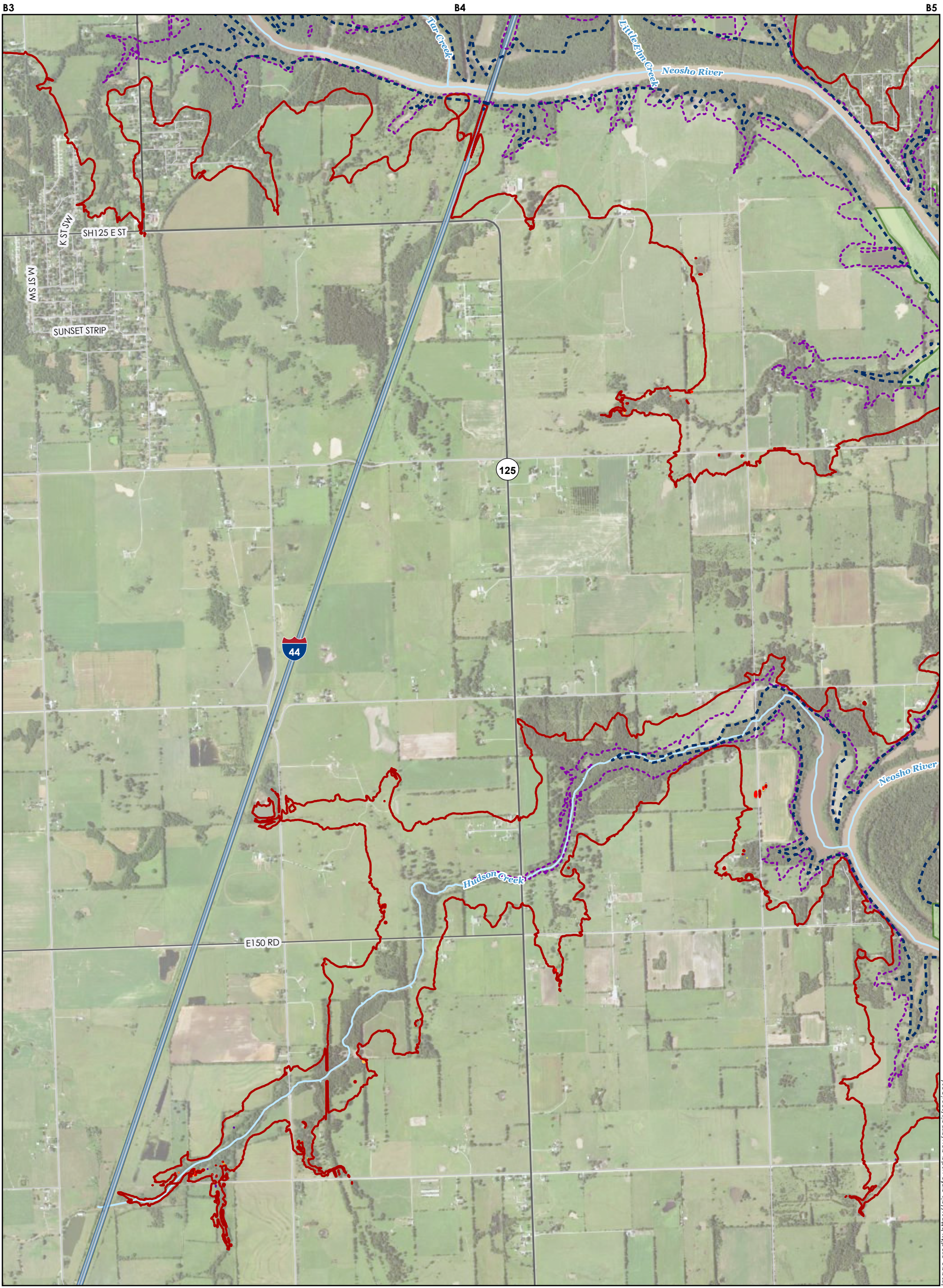
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
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PENSACOLA DAM GRAND RIVER DAM AUTHORITY

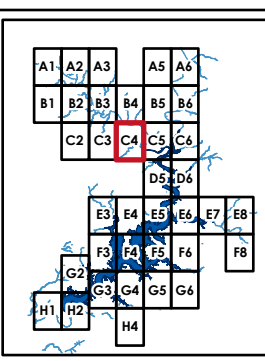
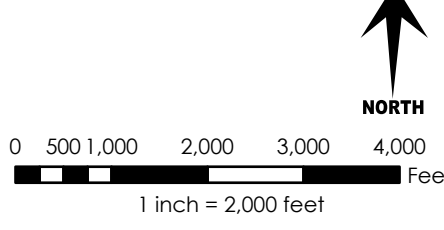
MAP: C3

CRAIG, DELAWARE, MAYES, AND OTTAWA 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	

ROAD CLASS	
Interstate	State Highway
US Highway	Major Collector
Local Road	

Railroad	Stream
Flowage Easements	Project Boundary
GRDA Ownership	

MAP AND LEGEND NOTES

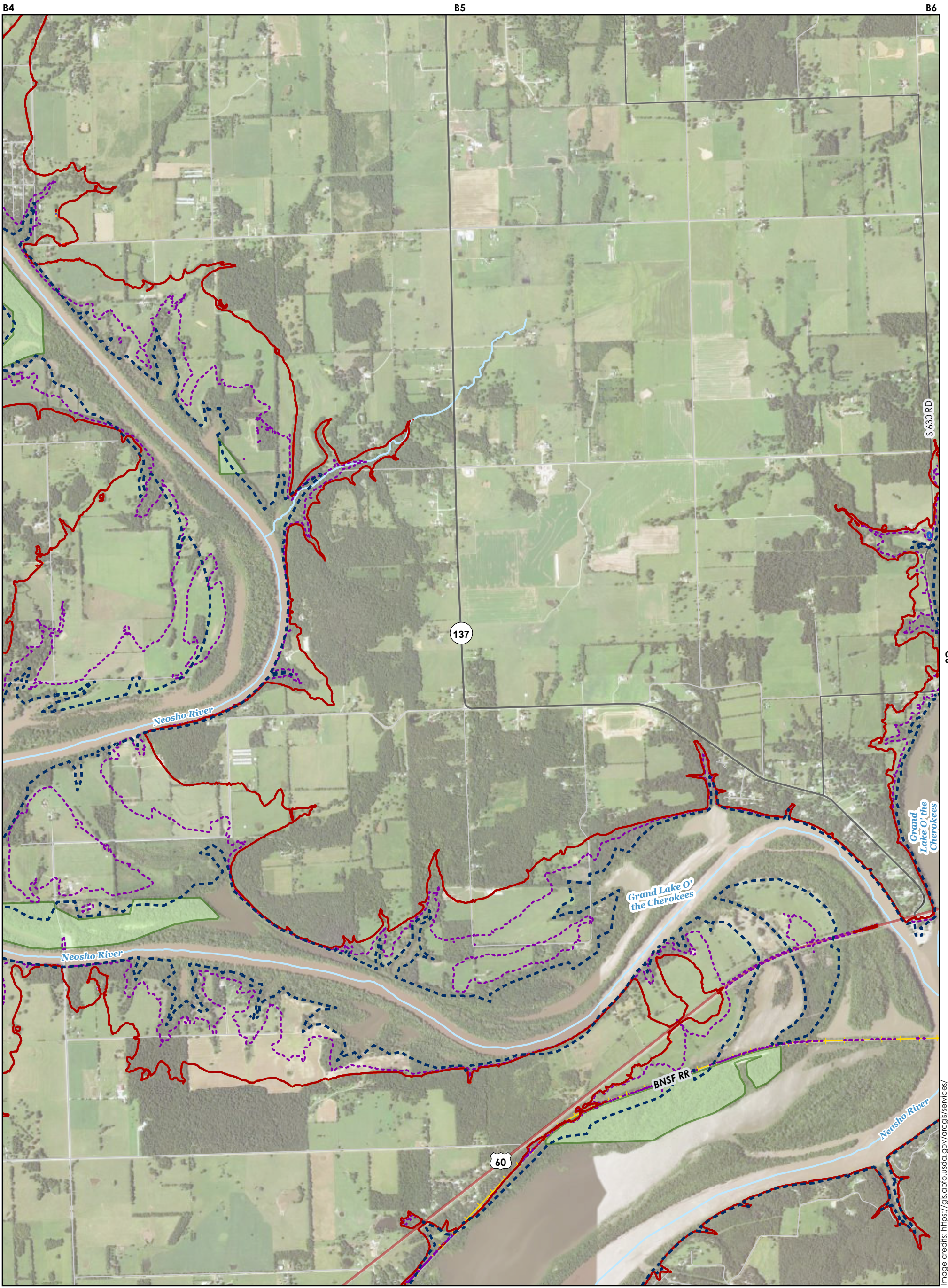
- For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
- See Overview Map for notes on data sources.

PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

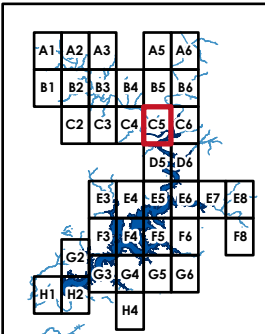
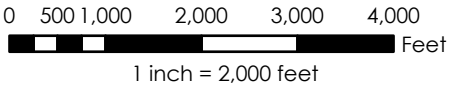
MAP: C4

CRAIG, DELAWARE, MAYES, AND OTTAWA 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
	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

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
GRAND RIVER DAM AUTHORITY

MAP: C5

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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

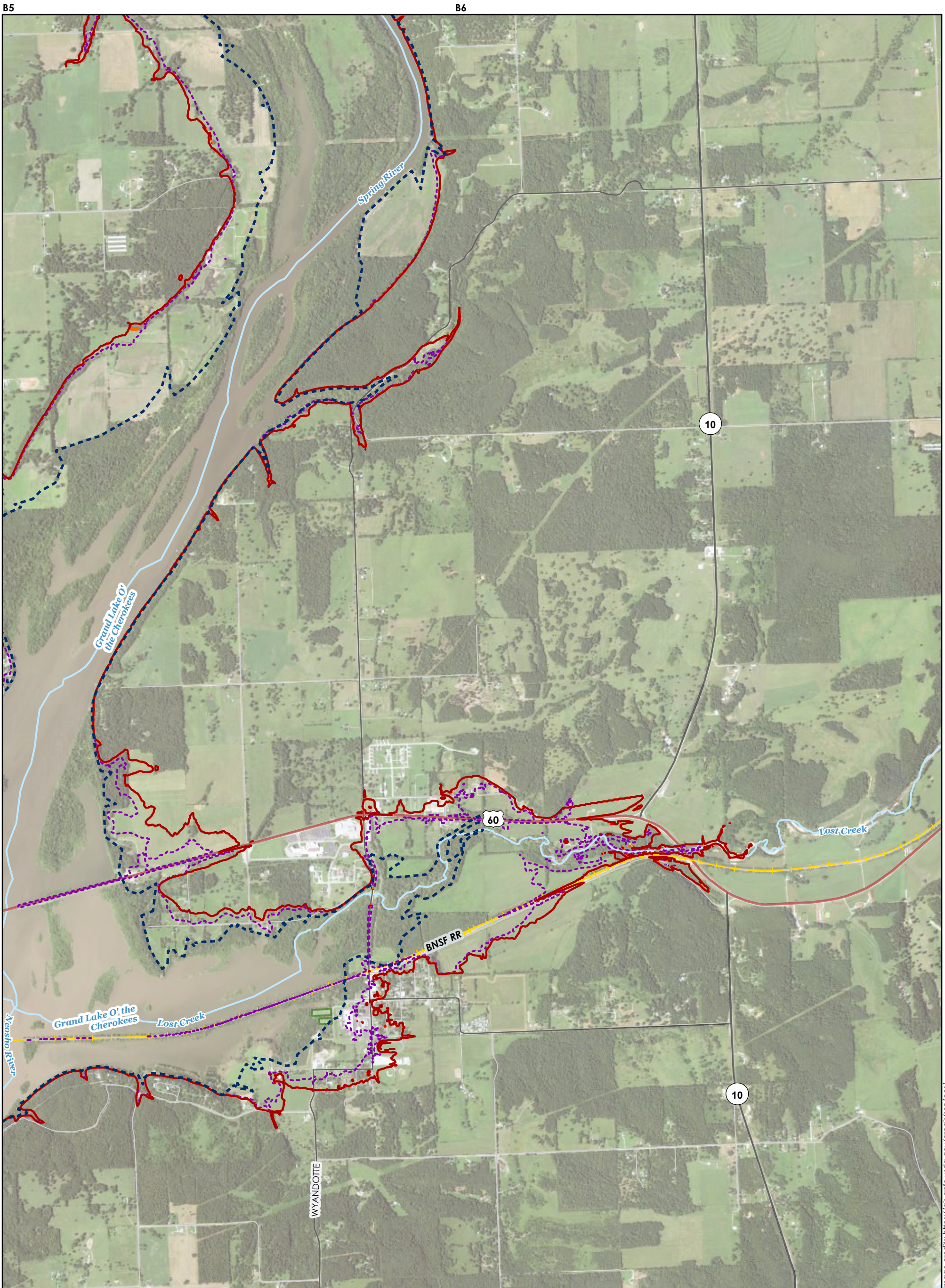


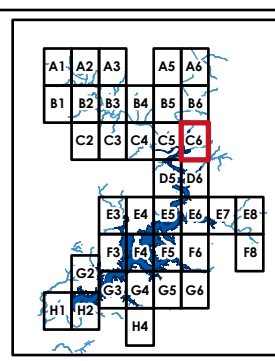
Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

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	
	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
	742.0 ft PD
	734.0 ft PD

ROAD CLASS	
	Interstate
	State Highway
	US Highway
	Major Collector
	Local Road

	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

MAP AND LEGEND NOTES

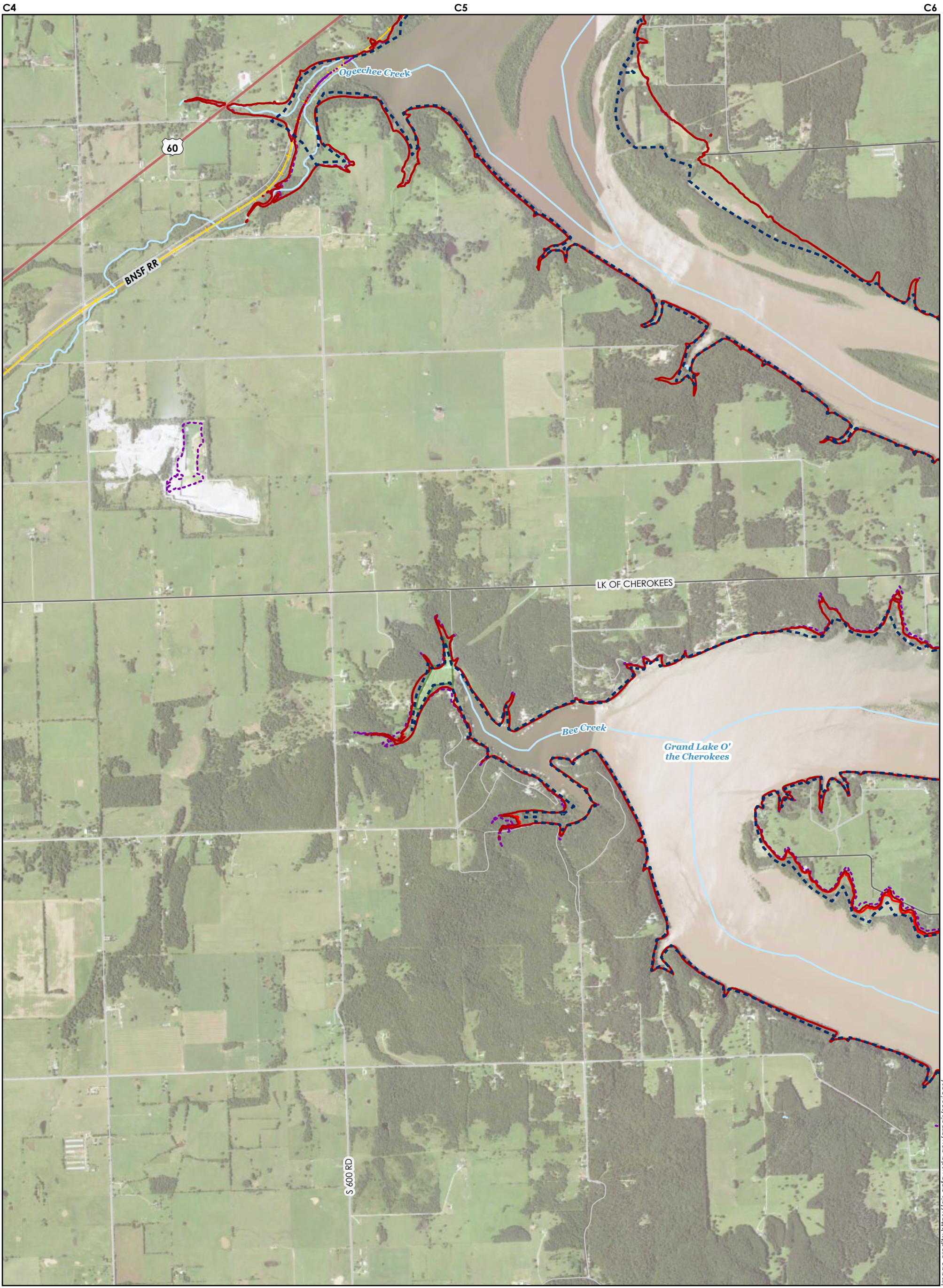
- For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
- See Overview Map for notes on data sources.

PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

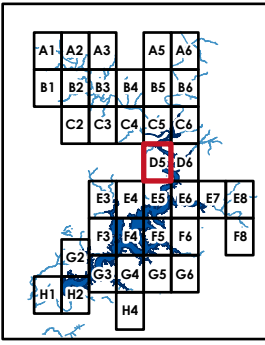
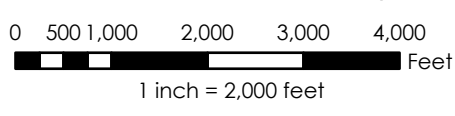
MAP: C6

CRAIG, DELAWARE, MAYES, AND OTTAWA 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	+ Railroad
— State Highway	— Stream
— US Highway	- - - Flowage Easements
— Major Collector	- - - Project Boundary
— Local Road	█ GRDA Ownership

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
GRAND RIVER DAM AUTHORITY

MAP: D5

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

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

C5

C6

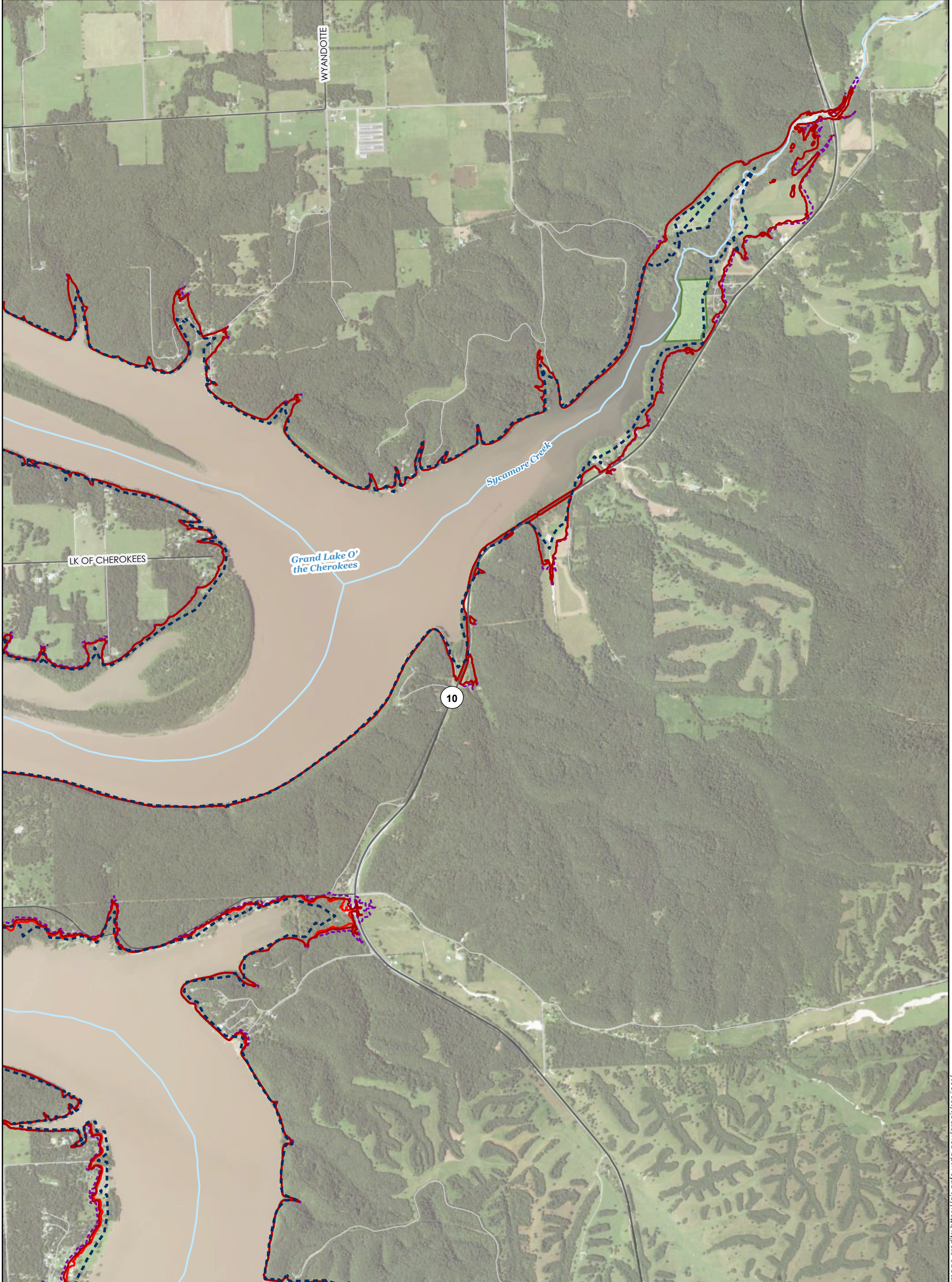


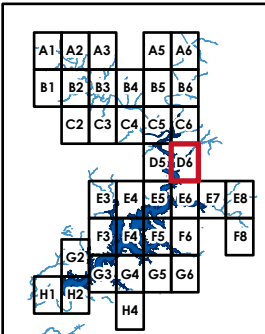
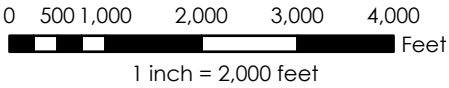
Image credits: https://gis.dplfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

E5

E6

E7

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	Major Collector
State Highway	Local Road
US Highway	

Railroad	Flowage Easements
Stream	Project Boundary
	GRDA Ownership

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 GRAND RIVER DAM AUTHORITY

MAP: D6

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

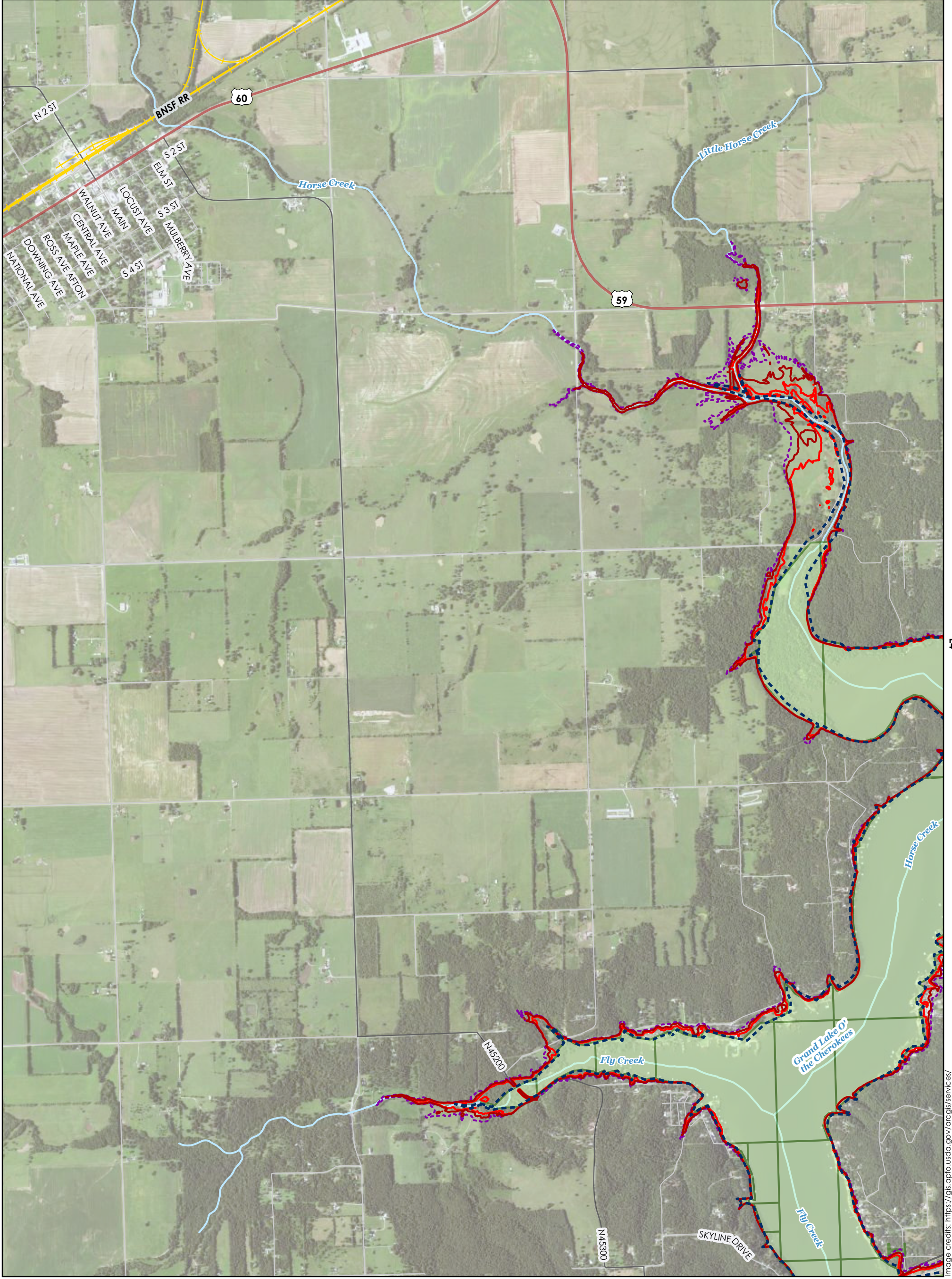
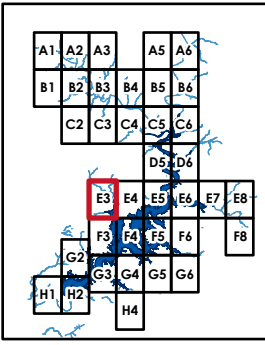
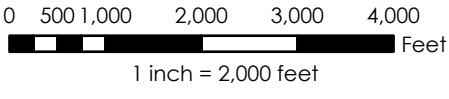


Image credits: https://gis.dplfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

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	Major Collector
State Highway	Local Road
US Highway	

Railroad	Stream
Flowage Easements	Project Boundary
GRDA Ownership	

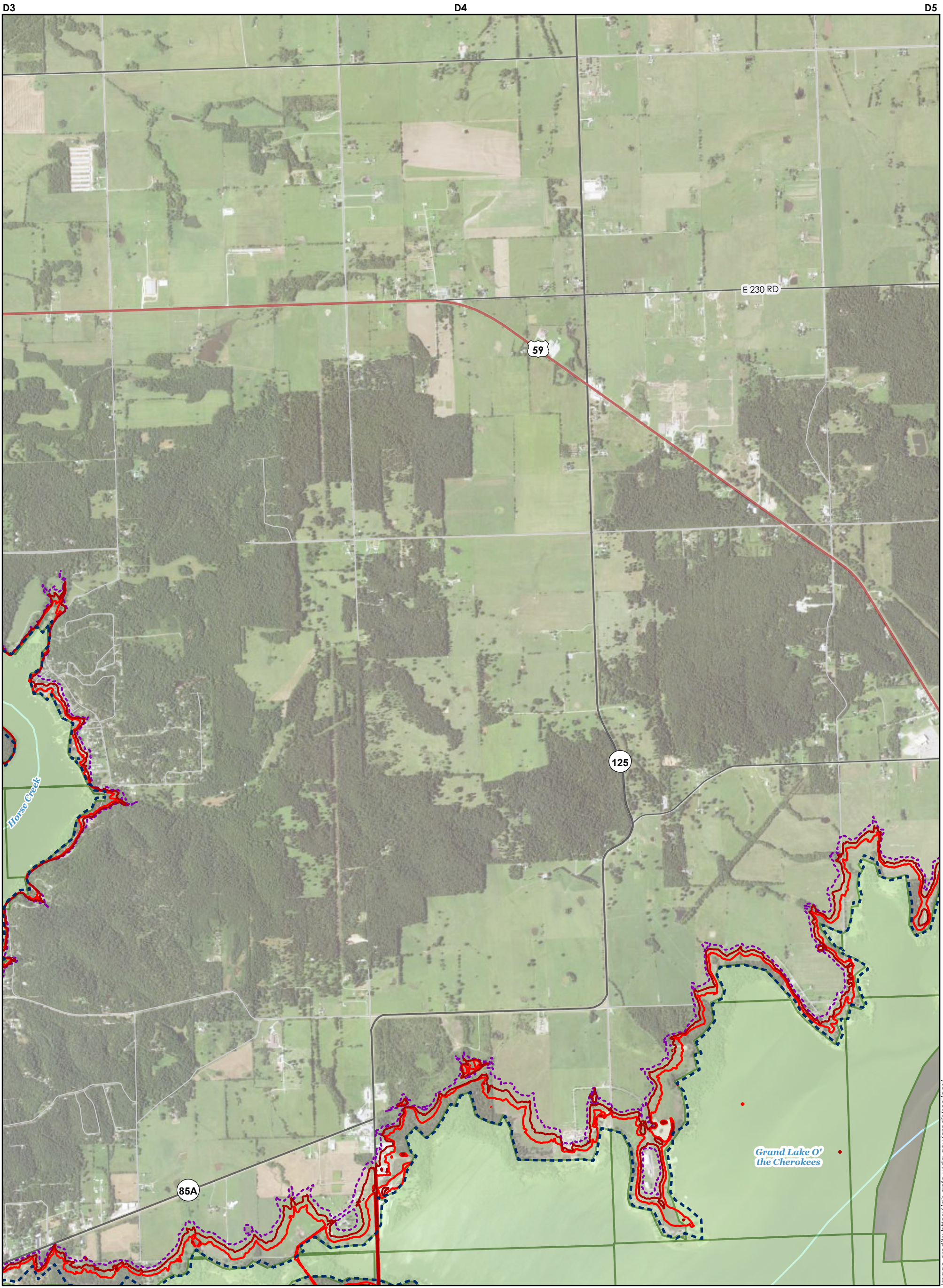
MAP AND LEGEND NOTES

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.

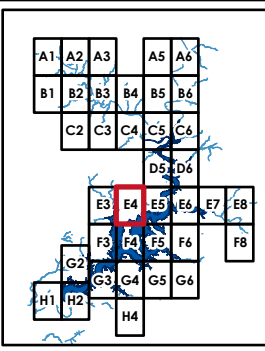
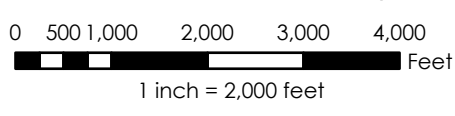
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: E3

CRAIG, DELAWARE, MAYES, AND OTTAWA 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

- Railroad
- Stream
- Flowage Easements
- Project Boundary
- GRDA Ownership

MAP AND LEGEND NOTES

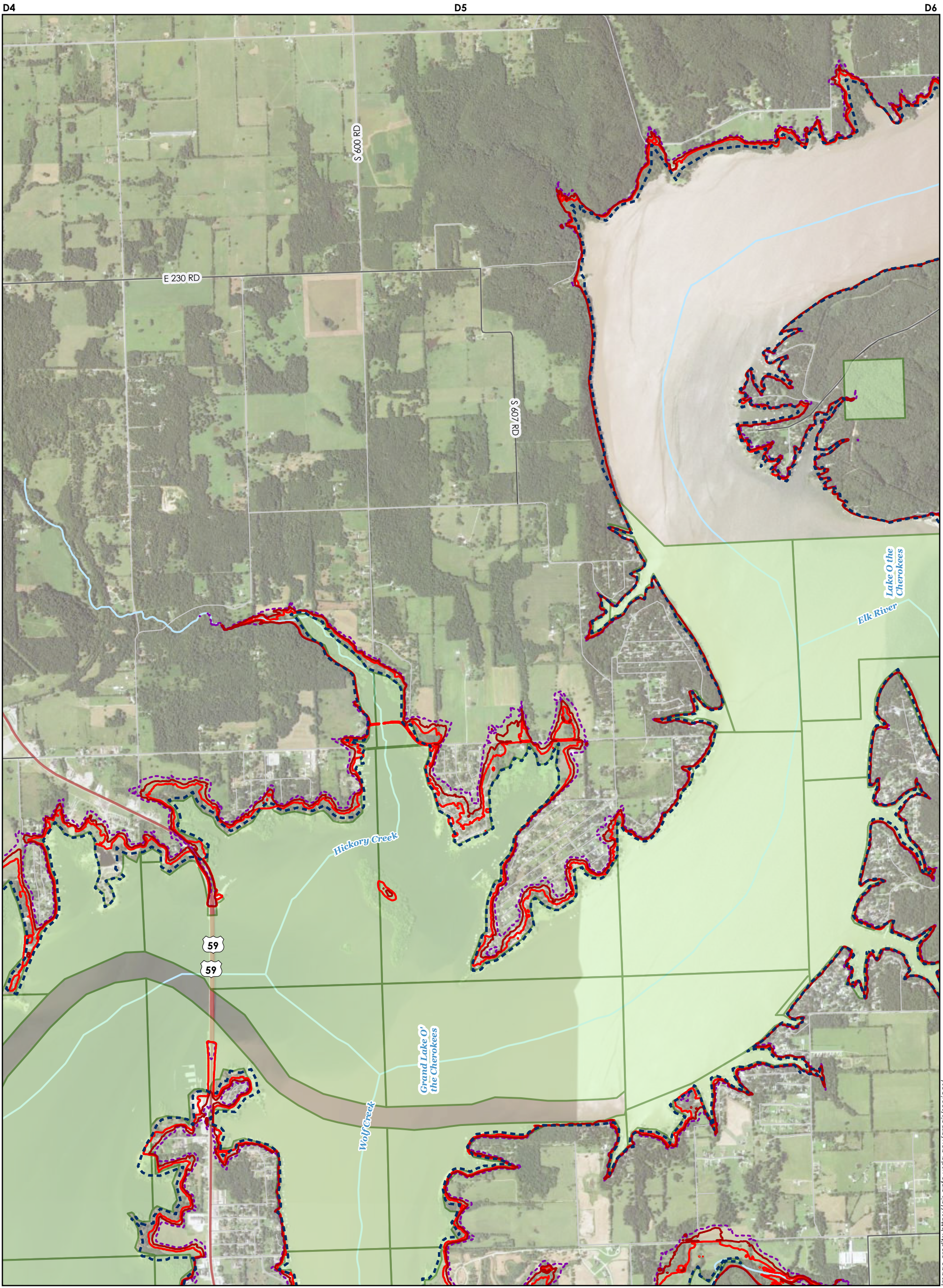
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: E4

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

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

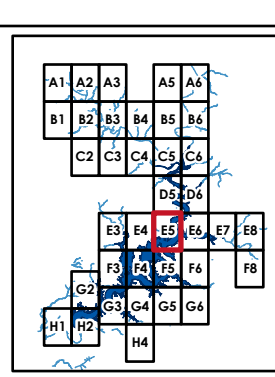


100-YEAR INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



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
	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: E5

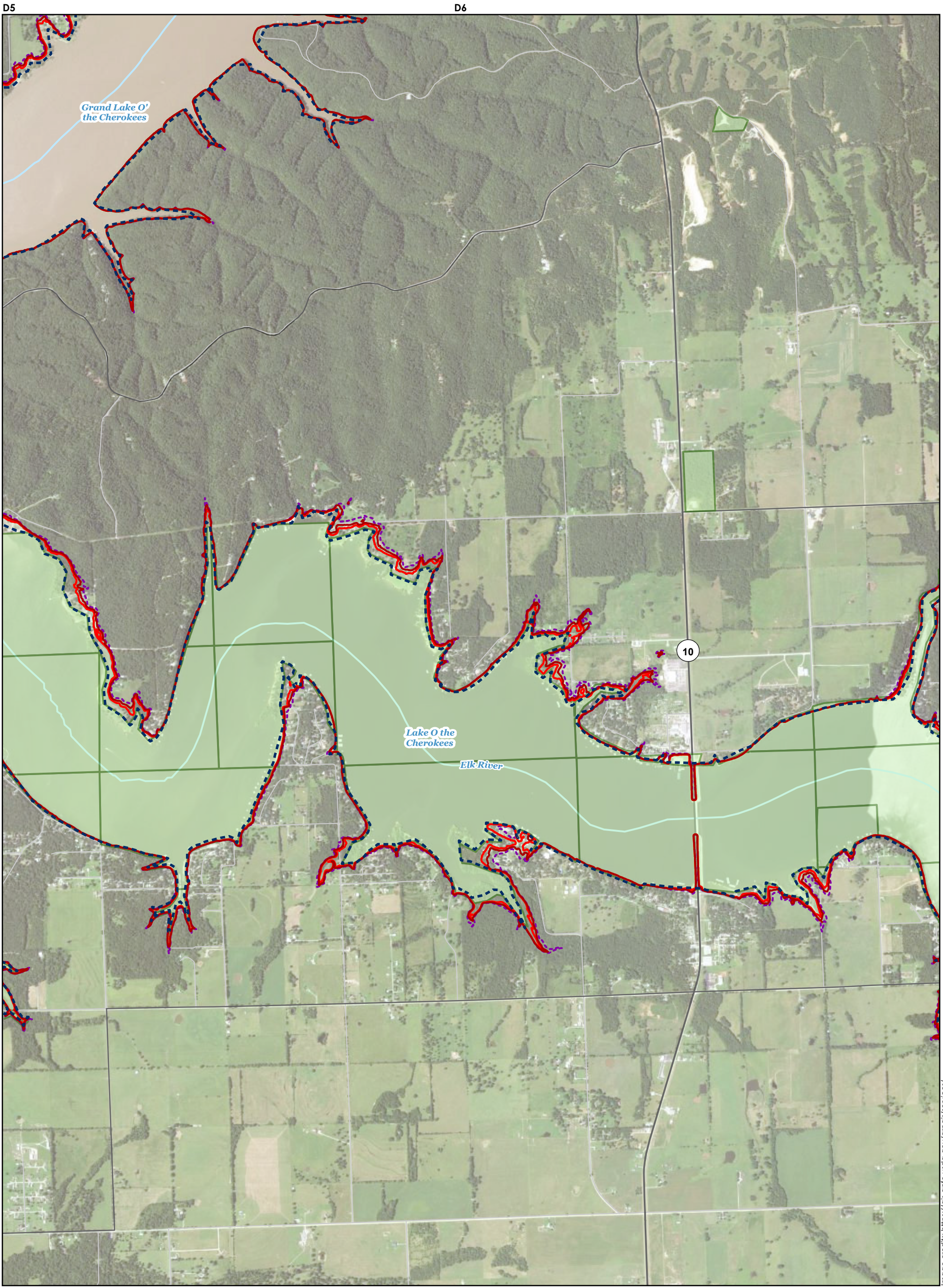
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022

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.

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

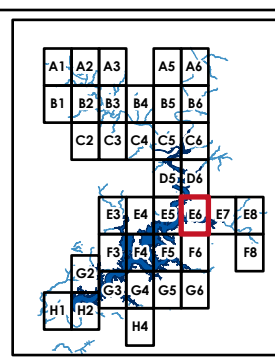


100-YEAR INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



100-YEAR MAX INUNDATION

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

Railroad
Stream
Flowage Easements
Project Boundary
GRDA Ownership

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.

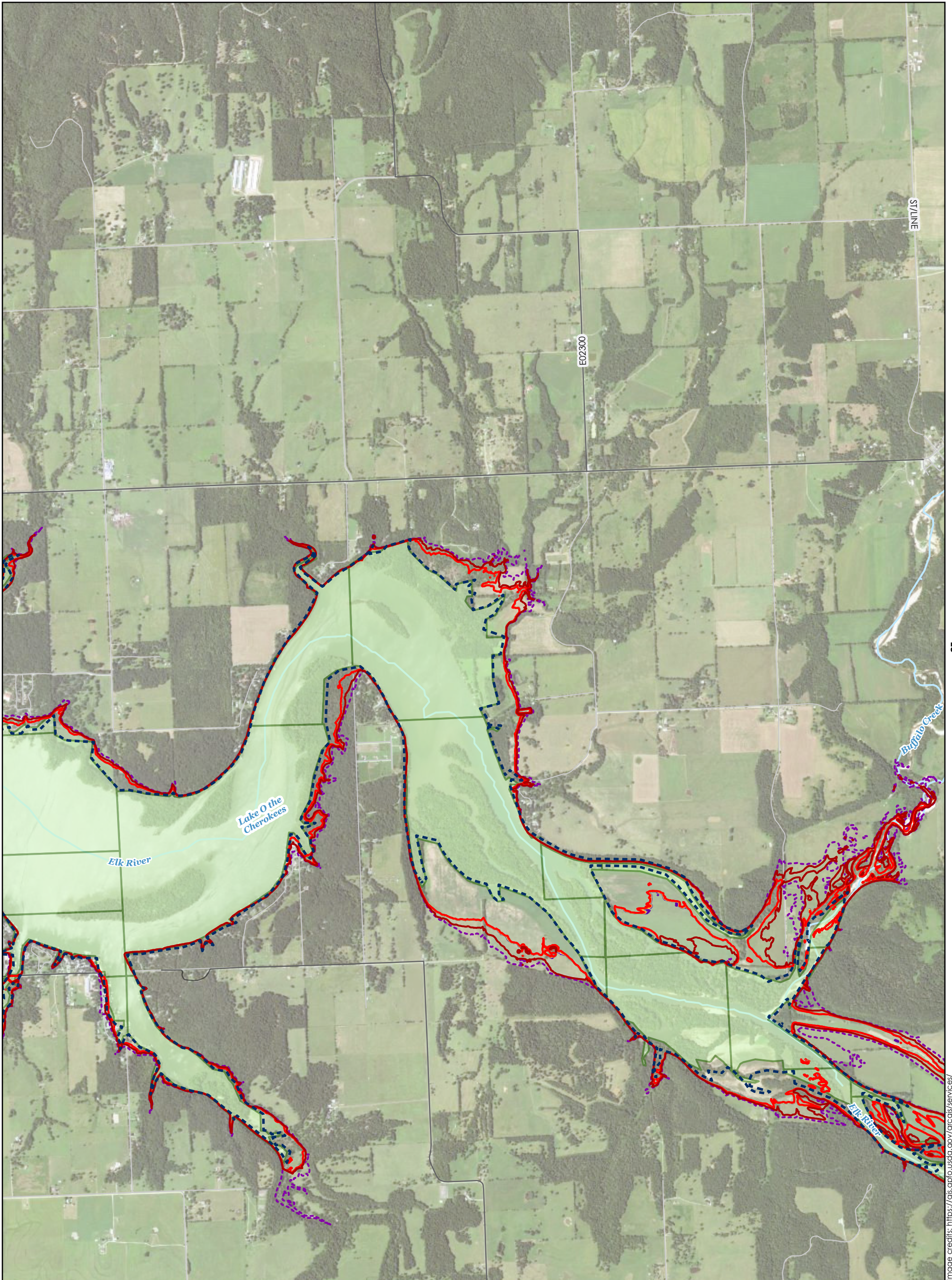
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: E6

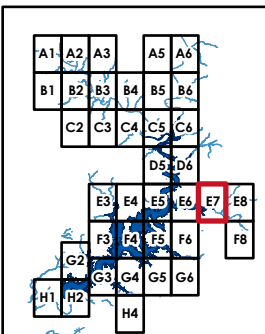
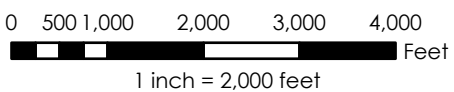
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022

Image credits: https://gis.dplfo.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

Railroad
Stream
Flowage Easements
Project Boundary
GRDA Ownership

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
GRAND RIVER DAM AUTHORITY

MAP: E7

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

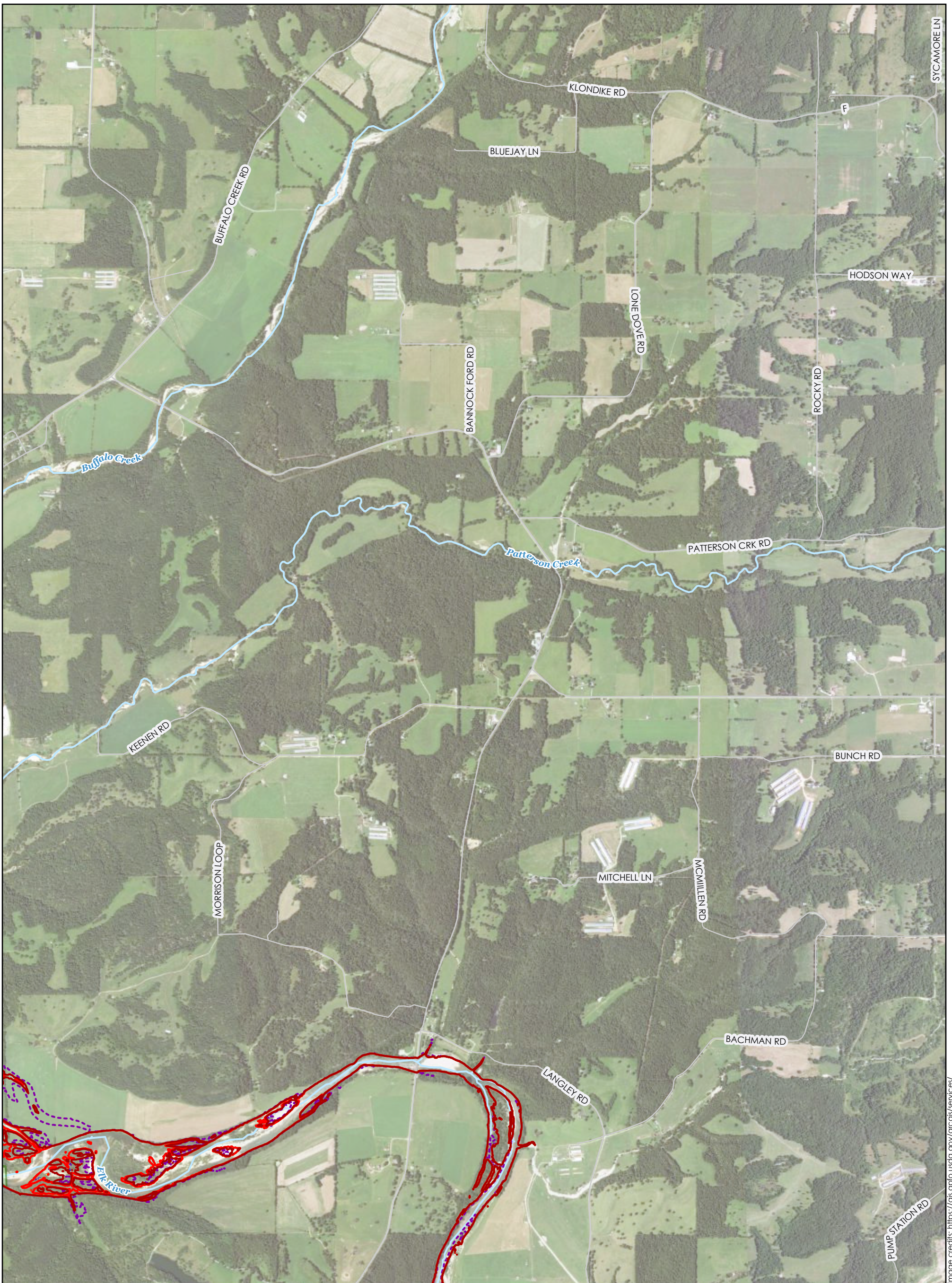


Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

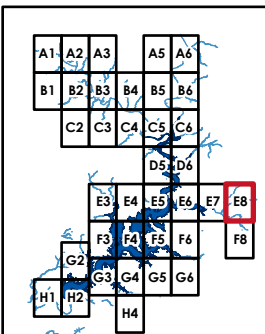
F7

F8

100-YEAR INUNDATION SCENARIO



0 500 1,000 2,000 3,000 4,000 Feet
1 inch = 2,000 feet



100-YEAR 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

Legend

- | | |
|-----------------|-------------------|
| Interstate | Railroad |
| State Highway | Stream |
| US Highway | Flowage Easements |
| Major Collector | Project Boundary |
| Local Road | GRDA Ownership |

MAP AND LEGEND NOTES

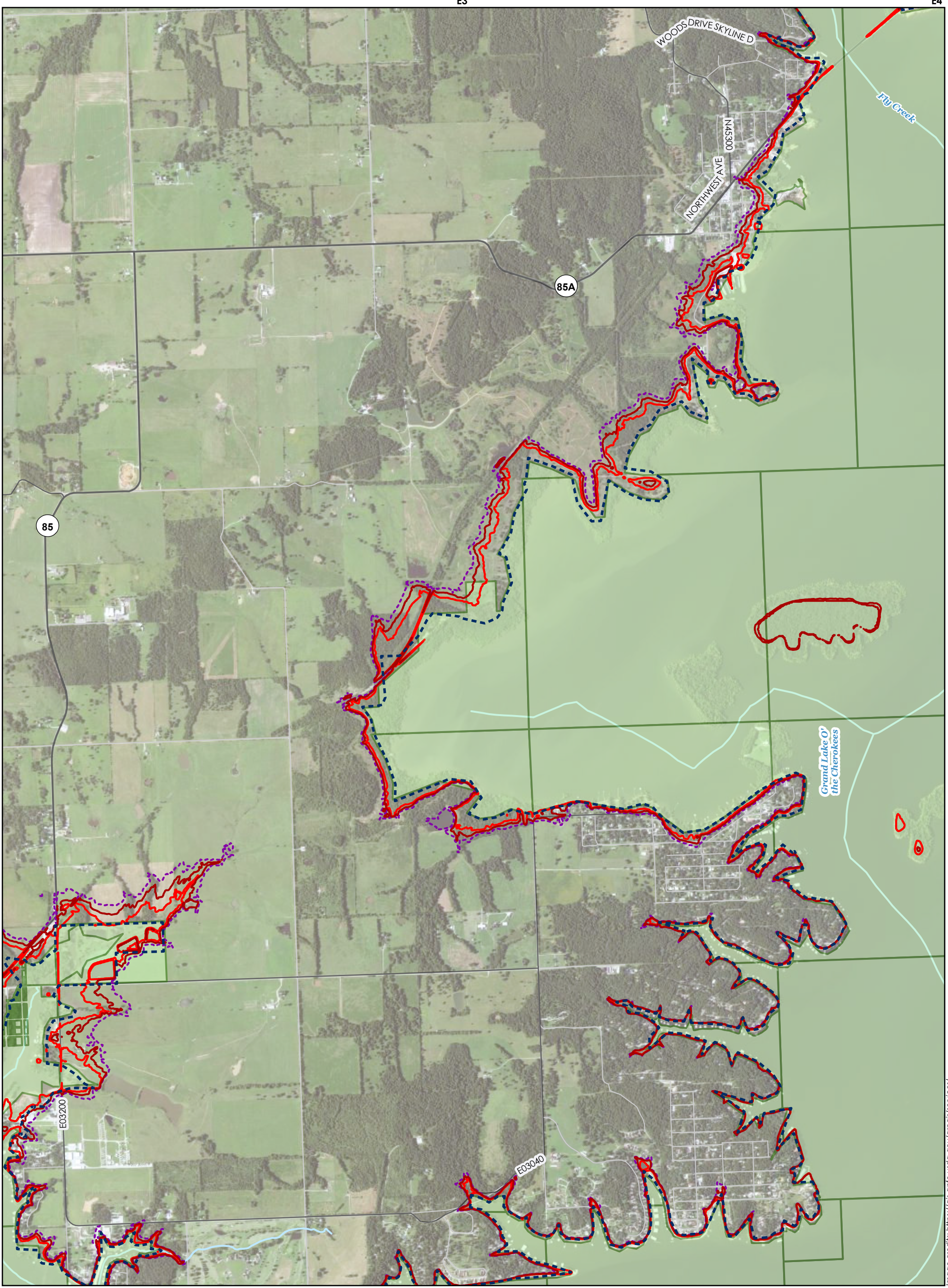
- For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
- See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: E8

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

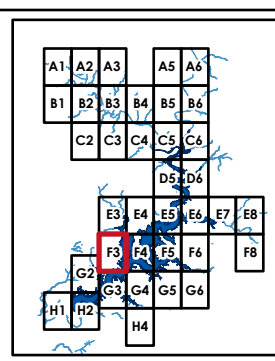


100-YEAR INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



100-YEAR MAX INUNDATION

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

- Railroad
- Stream
- Flowage Easements
- Project Boundary
- GRDA Ownership

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
GRAND RIVER DAM AUTHORITY

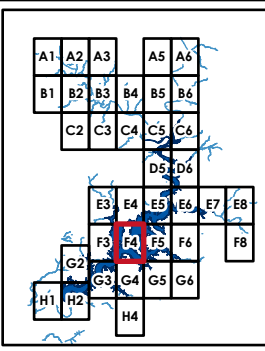
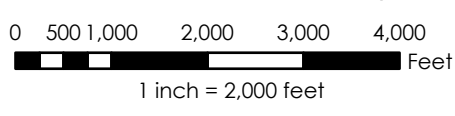
MAP: F3

CRAIG, DELAWARE, MAYES, AND OTTAWA 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

MAP AND LEGEND NOTES

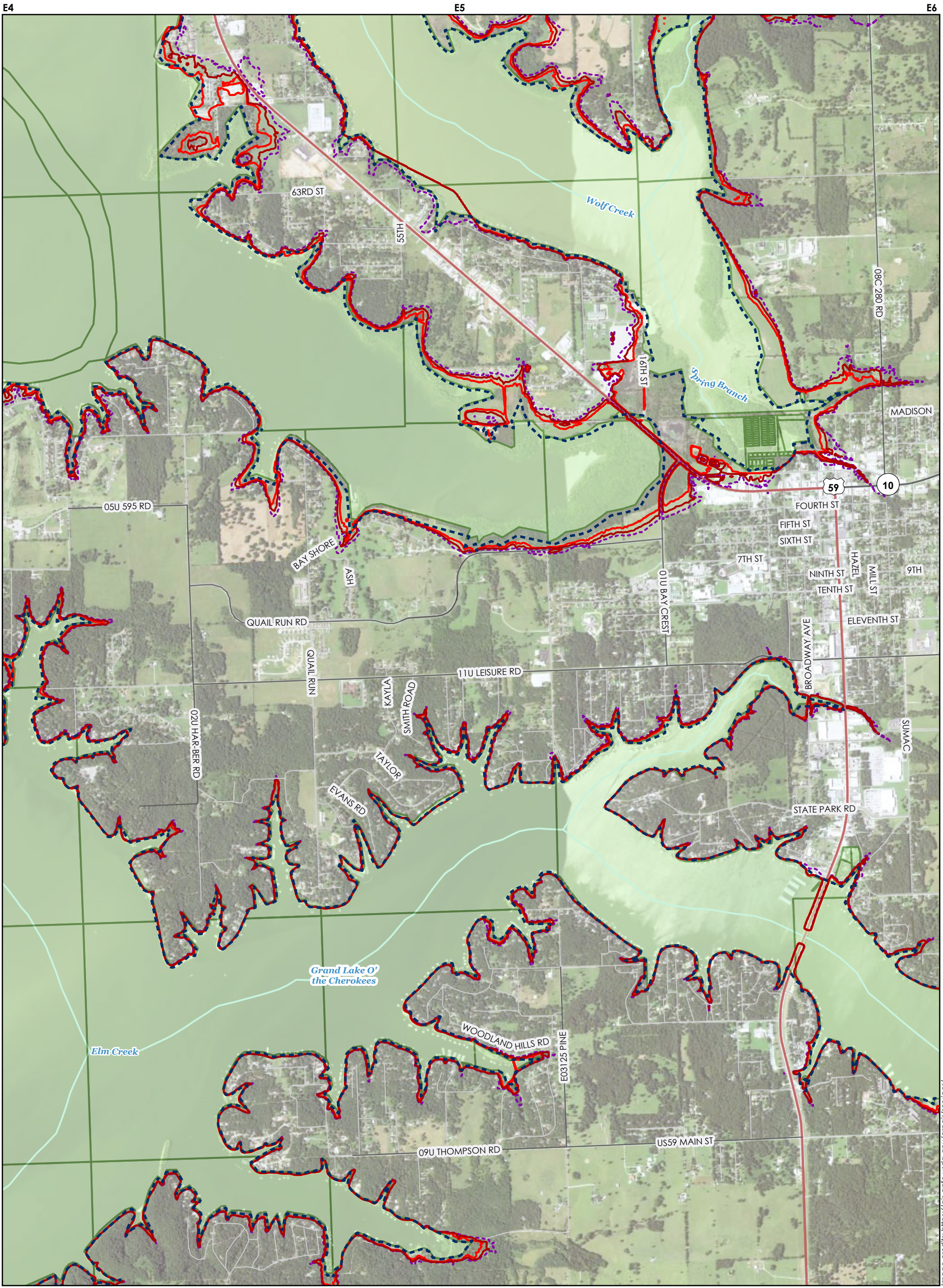
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: F4

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

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

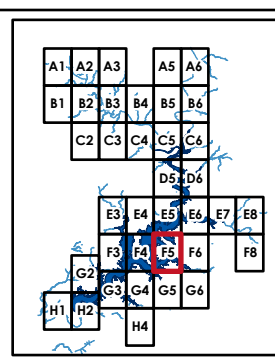


100-YEAR INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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

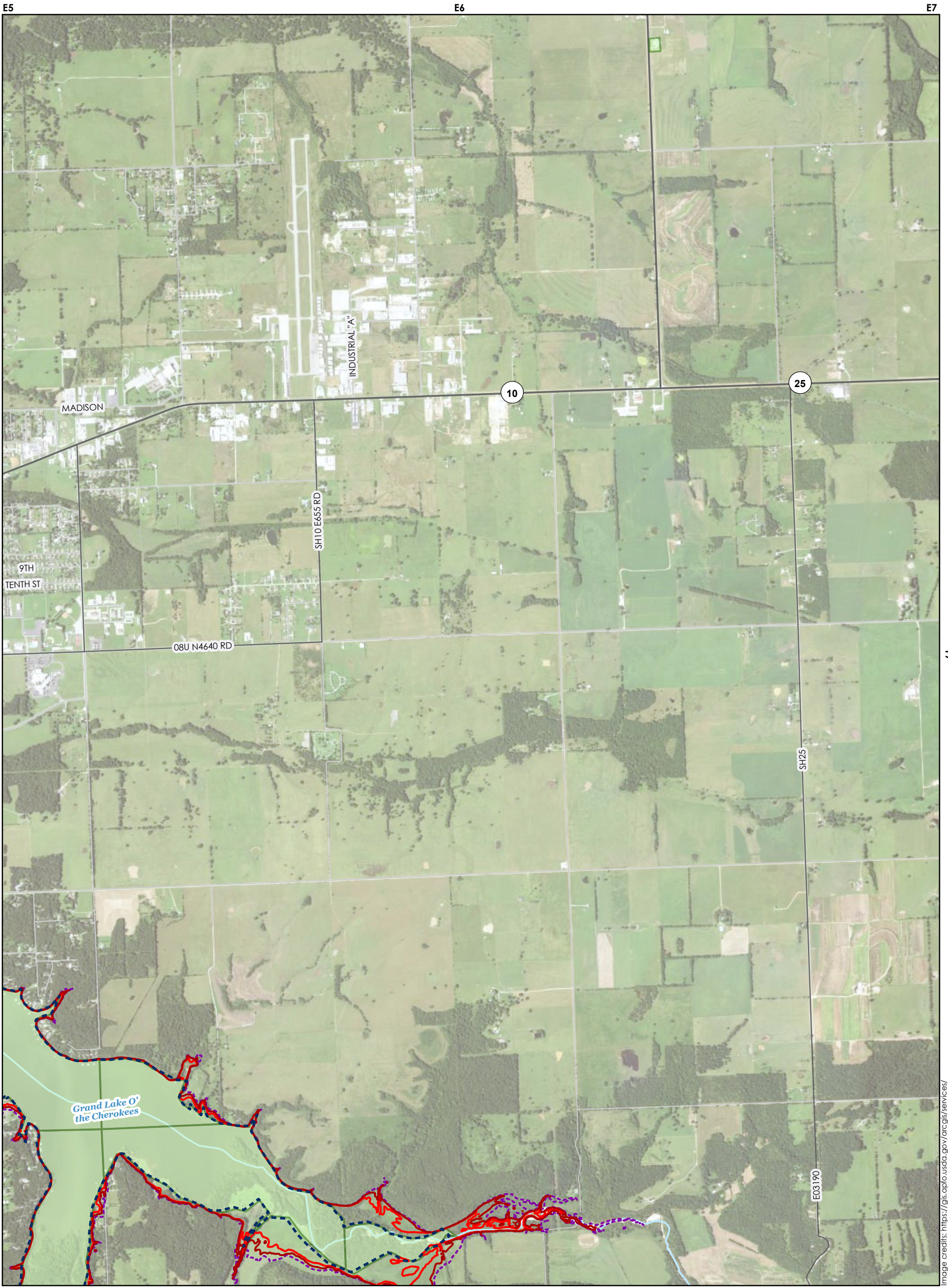
GRAND RIVER DAM AUTHORITY

MAP: F5

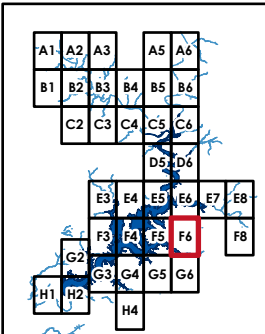
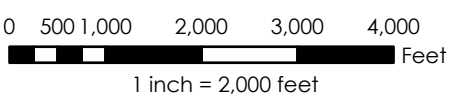
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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 GRAND RIVER DAM AUTHORITY

MAP: F6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

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

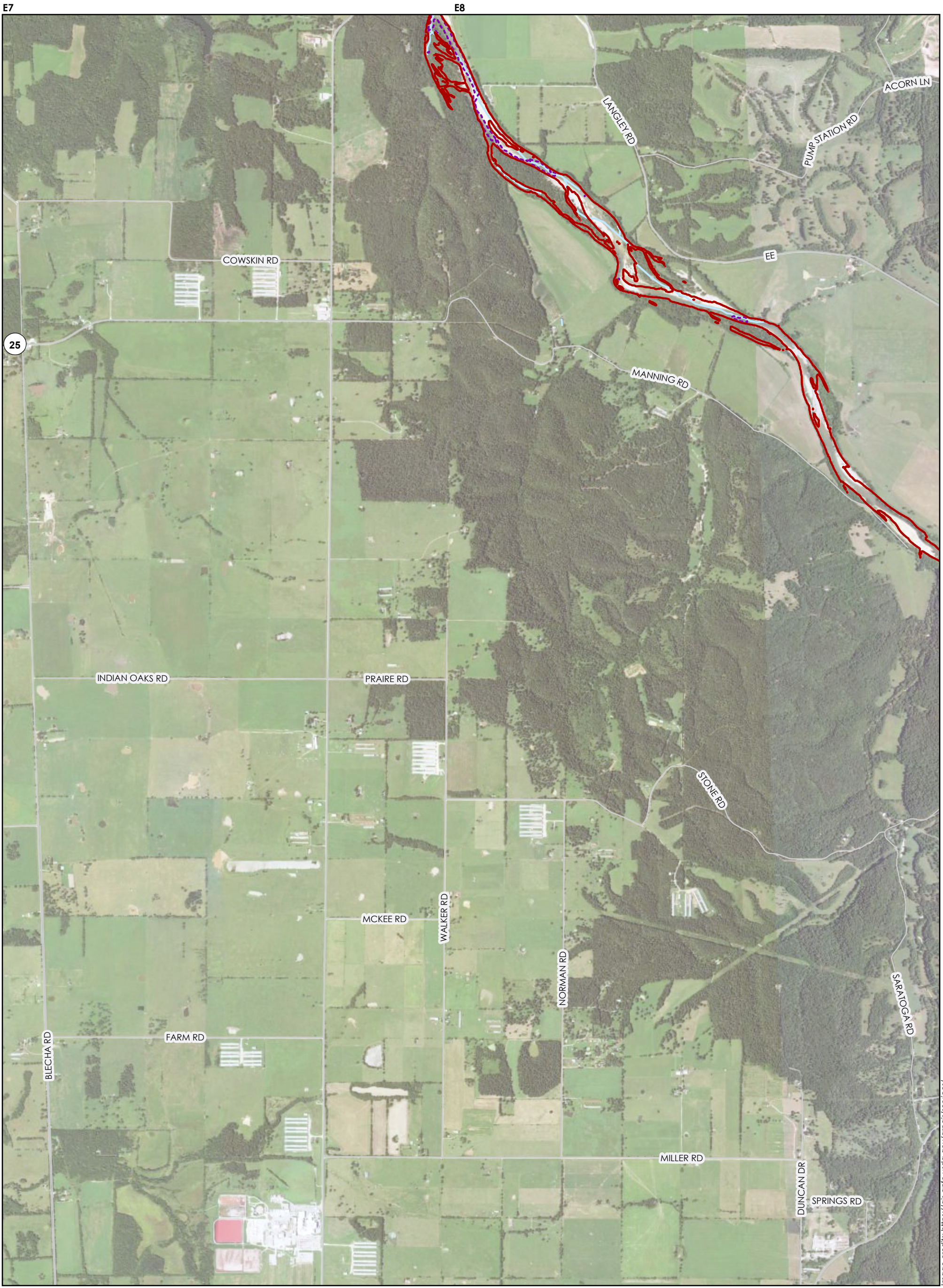


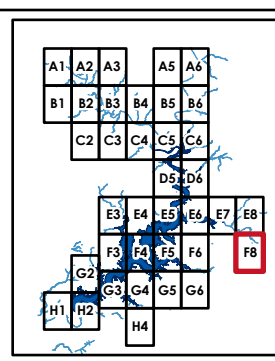
Image credits: https://gis.dplfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2019

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

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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

MAP AND LEGEND NOTES

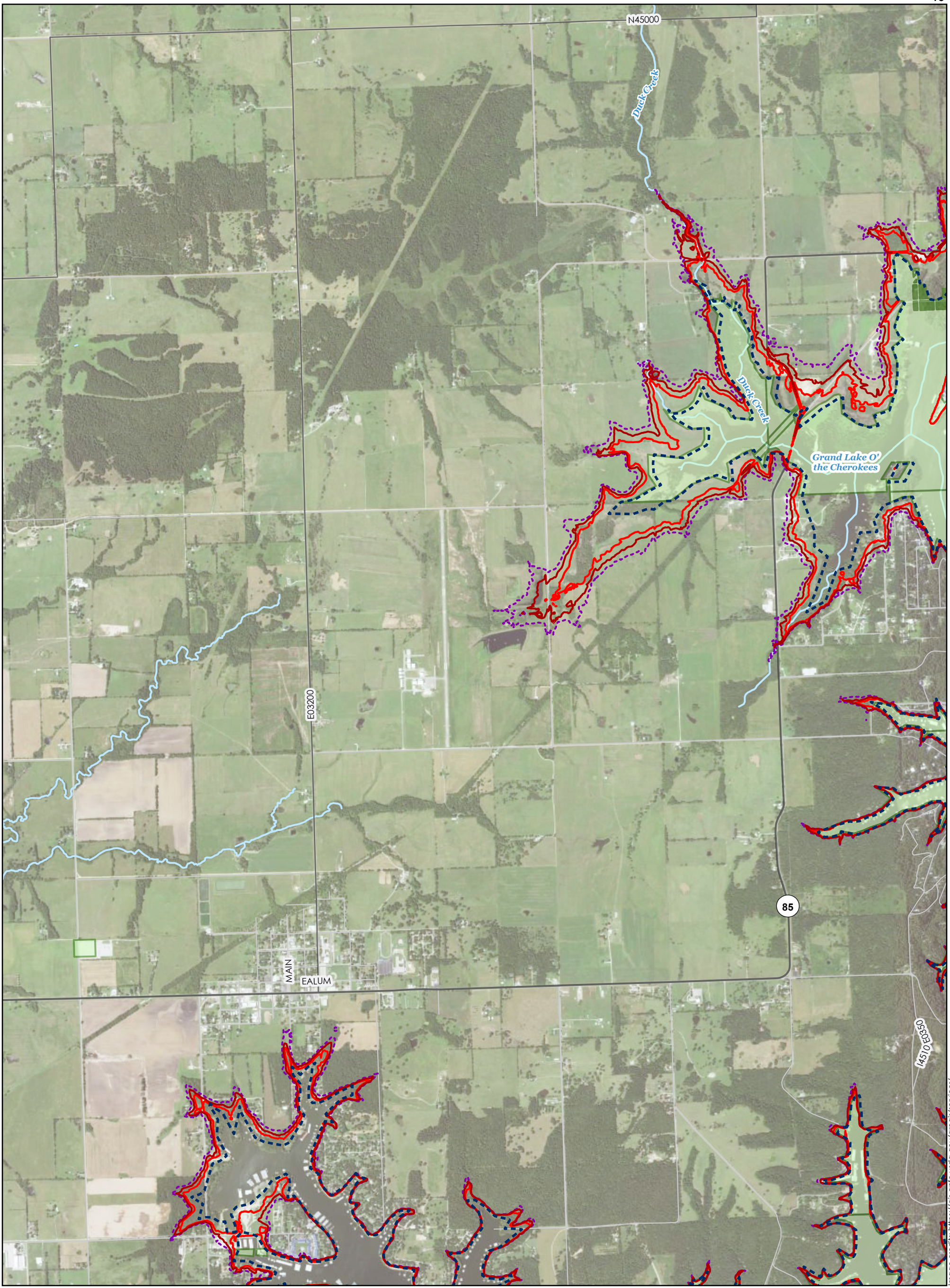
- For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
- See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: F8

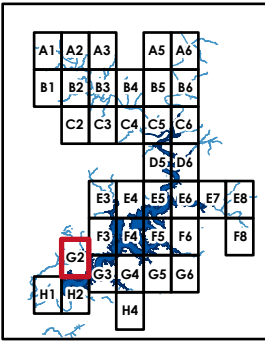
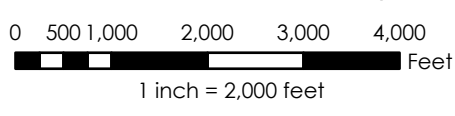
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



H1 H2 H3

100-YEAR INUNDATION SCENARIO



100-YEAR 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

Legend

- Interstate
- State Highway
- US Highway
- Major Collector
- Local Road
- + Railroad
- Stream
- - - Flowage Easements
- - - Project Boundary
- GRDA Ownership

MAP AND LEGEND NOTES

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2. See Overview Map for notes on data sources.

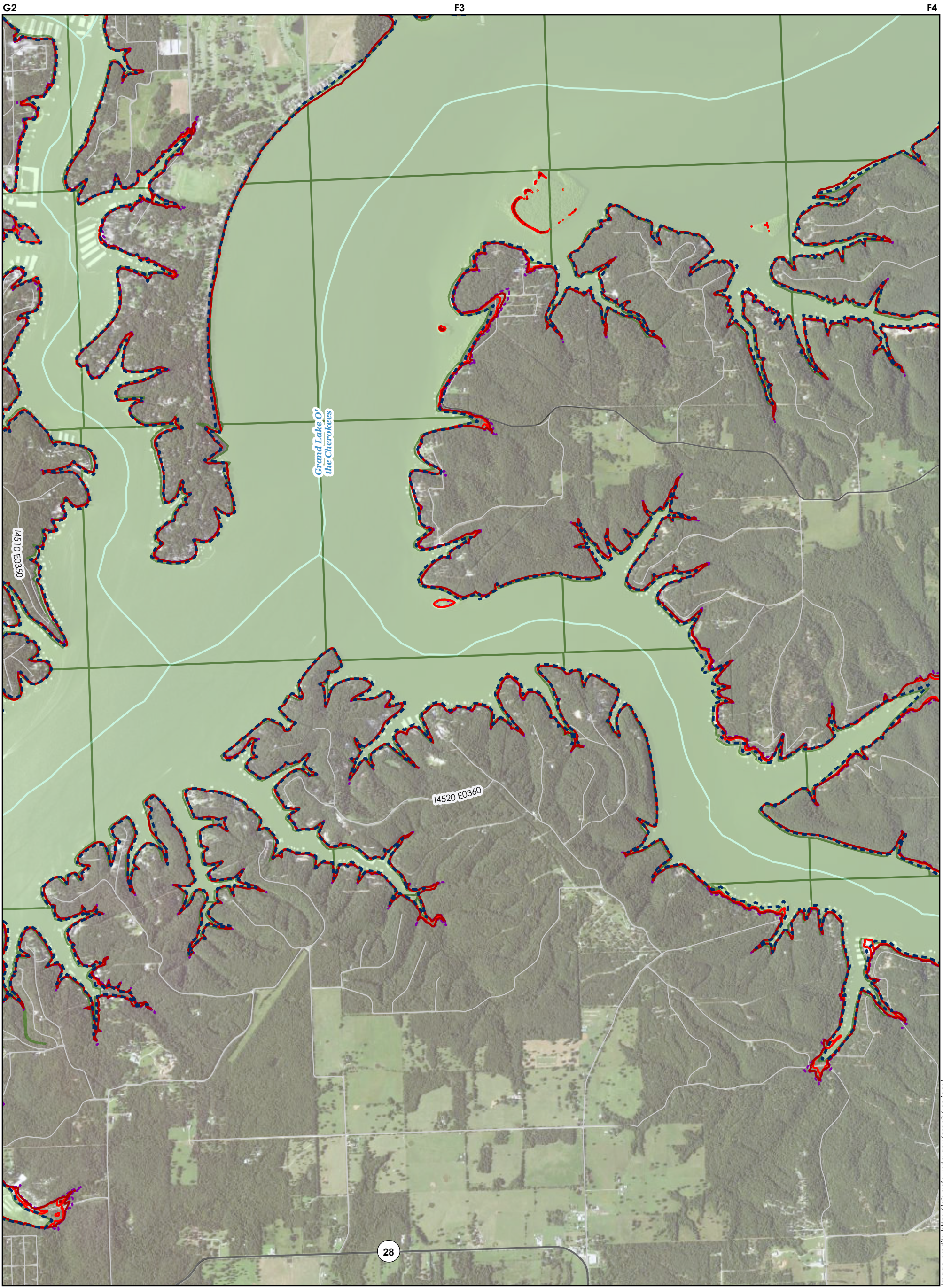
PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

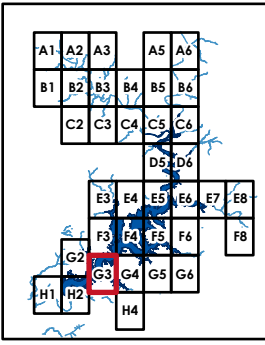
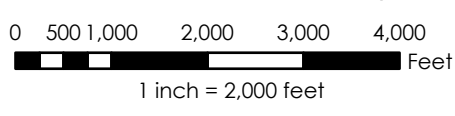
MAP: G2

CRAIG, DELAWARE, MAYES, AND OTTAWA 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	Railroad
State Highway	Stream
US Highway	Flowage Easements
Major Collector	Project Boundary
Local Road	GRDA Ownership

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.

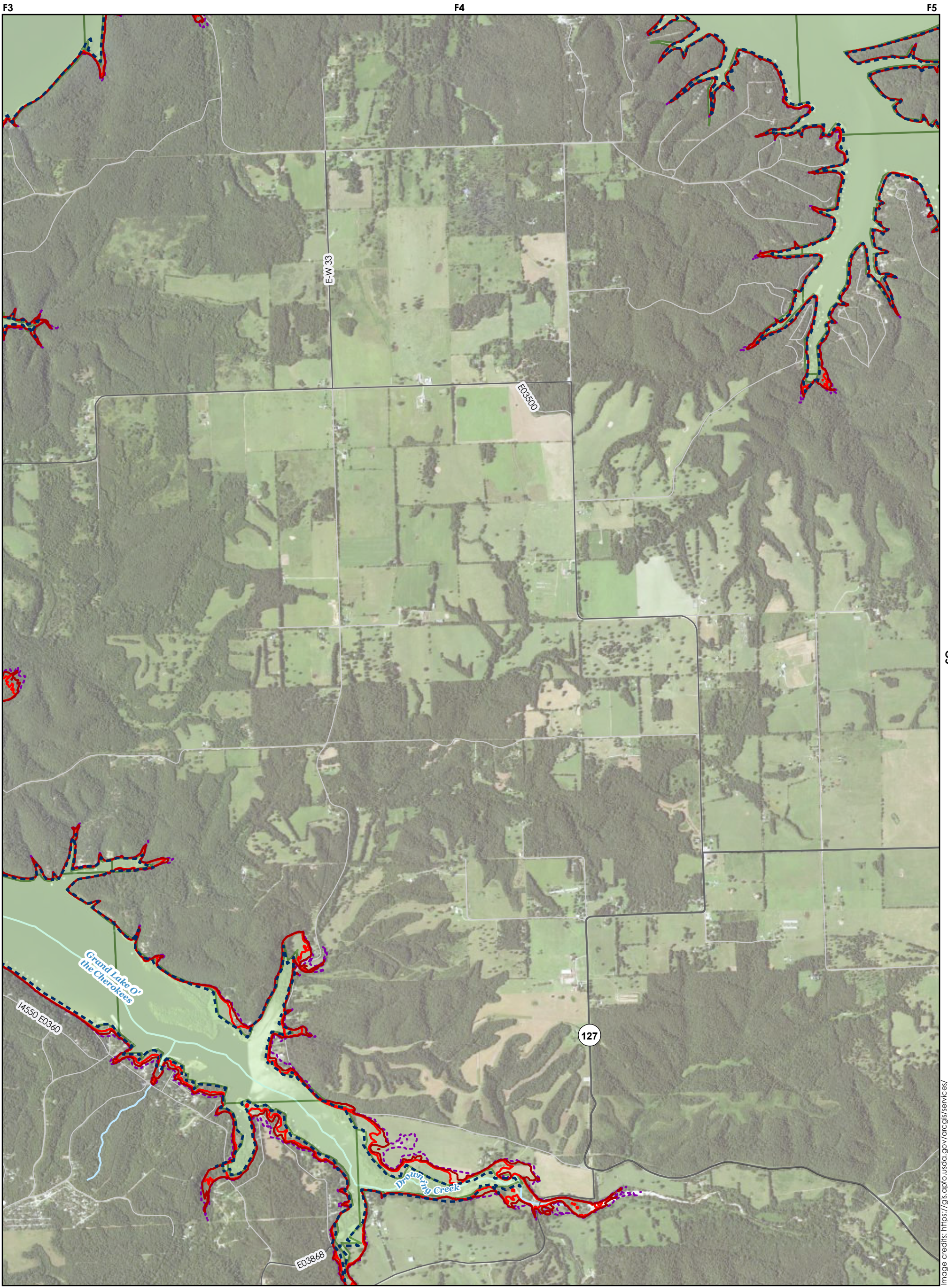
PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

MAP: G3

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022

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

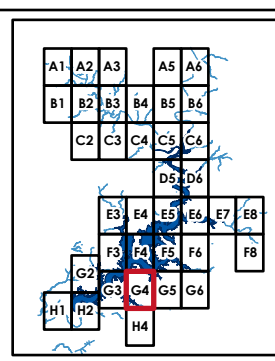


100-YEAR INUNDATION SCENARIO

NORTH

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

1 inch = 2,000 feet



100-YEAR MAX INUNDATION	
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	

ROAD CLASS	
Interstate	US Highway
State Highway	Major Collector
Local Road	

Railroad	Stream
Flowage Easements	Project Boundary
GRDA Ownership	

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.

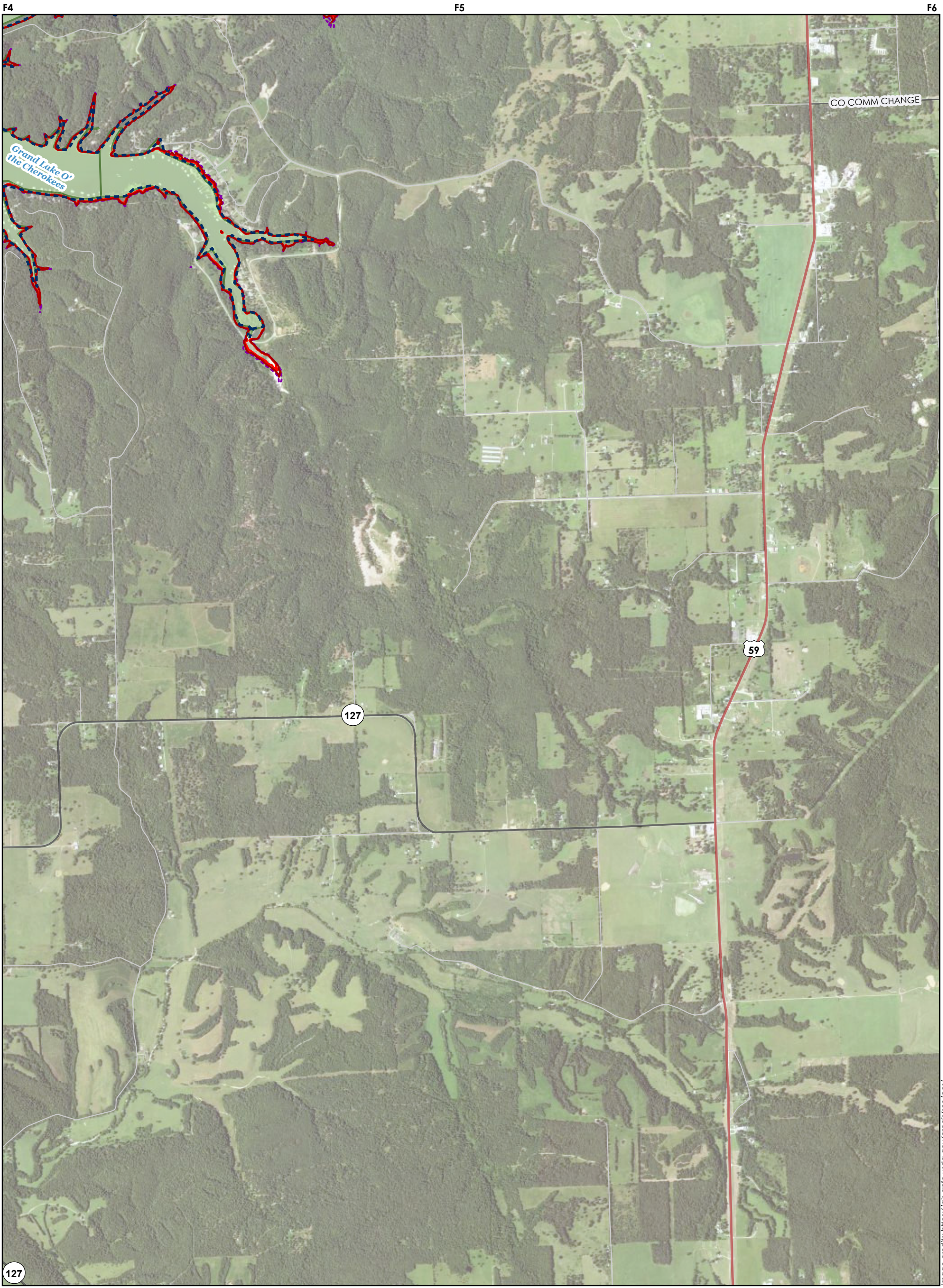
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: G4

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplbo.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

█ 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

— Interstate	Railroad
— State Highway	Stream
— US Highway	Flowage Easements
— Major Collector	Project Boundary
— Local Road	GRDA Ownership

PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

MAP: G5

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

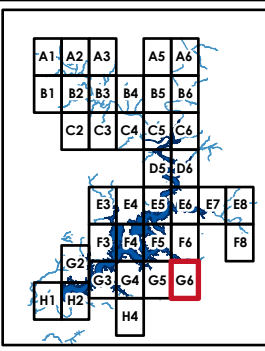
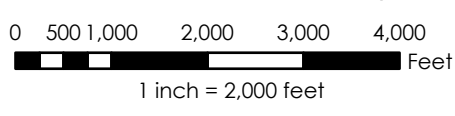
MAP AND LEGEND NOTES

- 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.

Image credits: https://gis.dplfo.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

	Railroad
	Stream
	Flowage Easements
	Project Boundary
	GRDA Ownership

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
GRAND RIVER DAM AUTHORITY

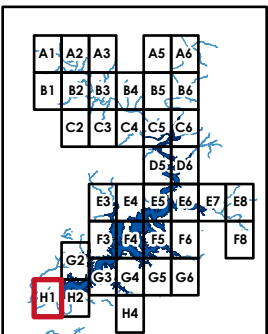
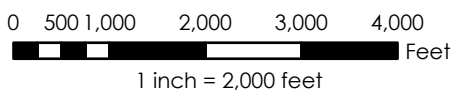
MAP: G6

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

Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2014



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	+	Railroad
State Highway	—	Stream
US Highway	—	Flowage Easements
Major Collector	—	Project Boundary
Local Road	—	GRDA Ownership

MAP AND LEGEND NOTES

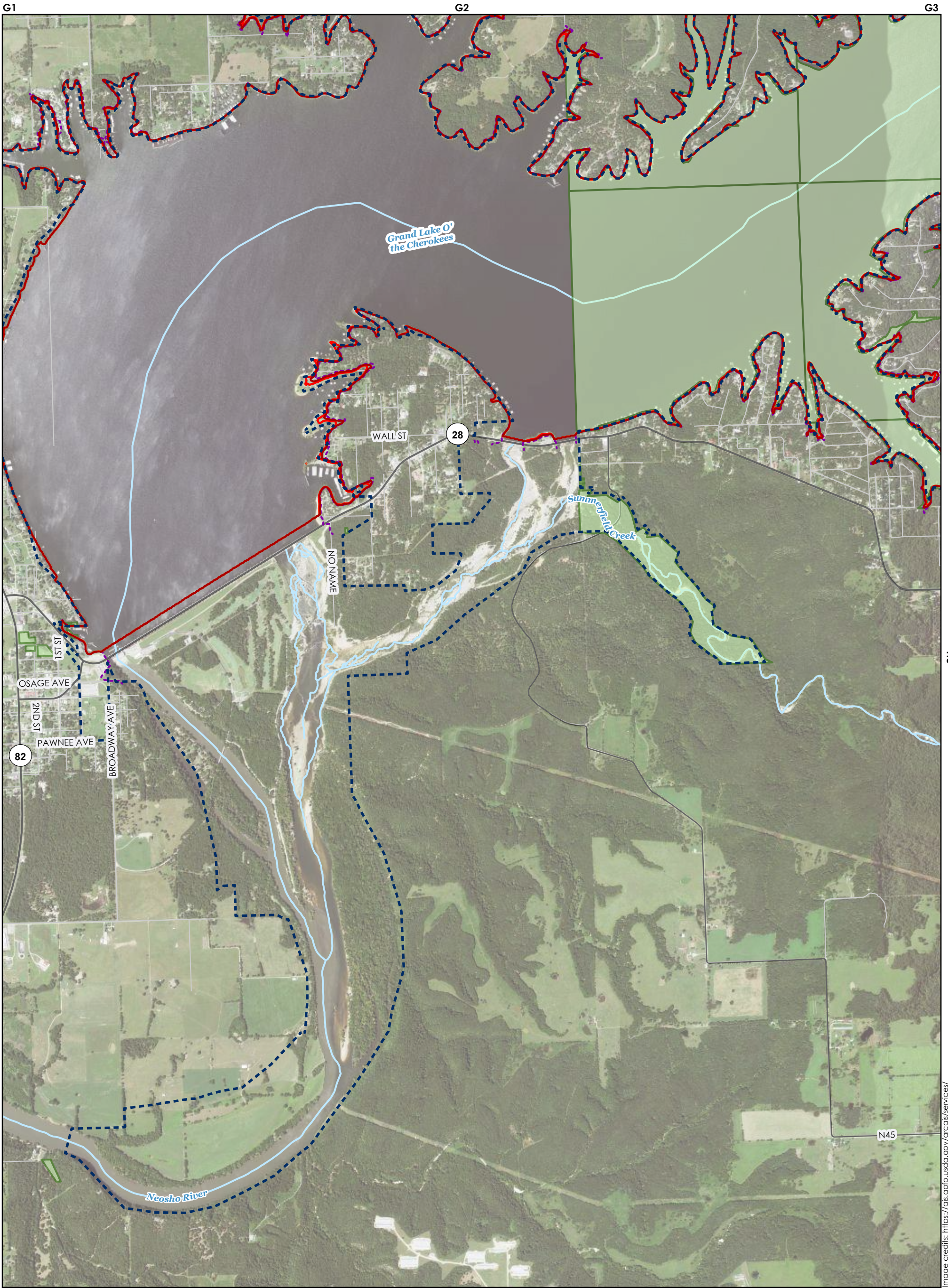
1. For areas where only the highest starting elevation inundation boundary is visible, the inundation from other starting elevations is nearly identical.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

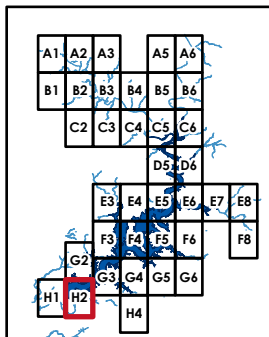
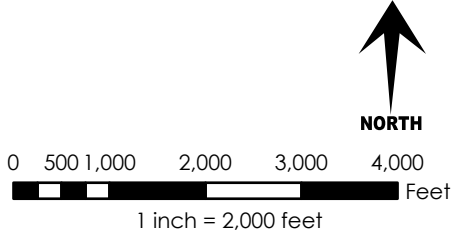
MAP: H1

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

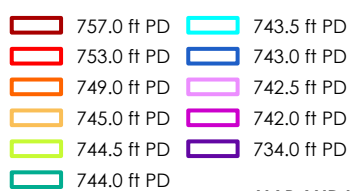
FERC No. 1494
September 2022



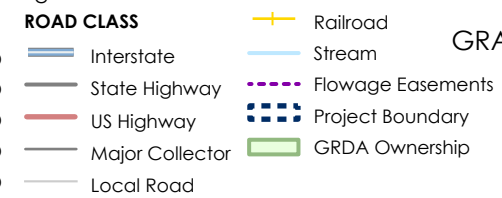
100-YEAR INUNDATION SCENARIO



100-YEAR MAX INUNDATION



Legend



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
GRAND RIVER DAM AUTHORITY

MAP: H2

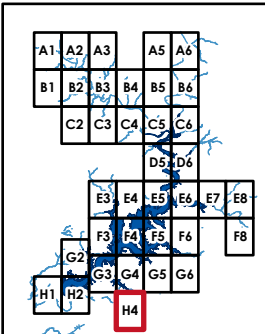
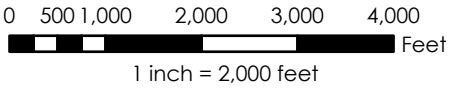
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



Image credits: https://gis.dplfo.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

Railroad
Stream
Flowage Easements
Project Boundary
GRDA Ownership

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
GRAND RIVER DAM AUTHORITY

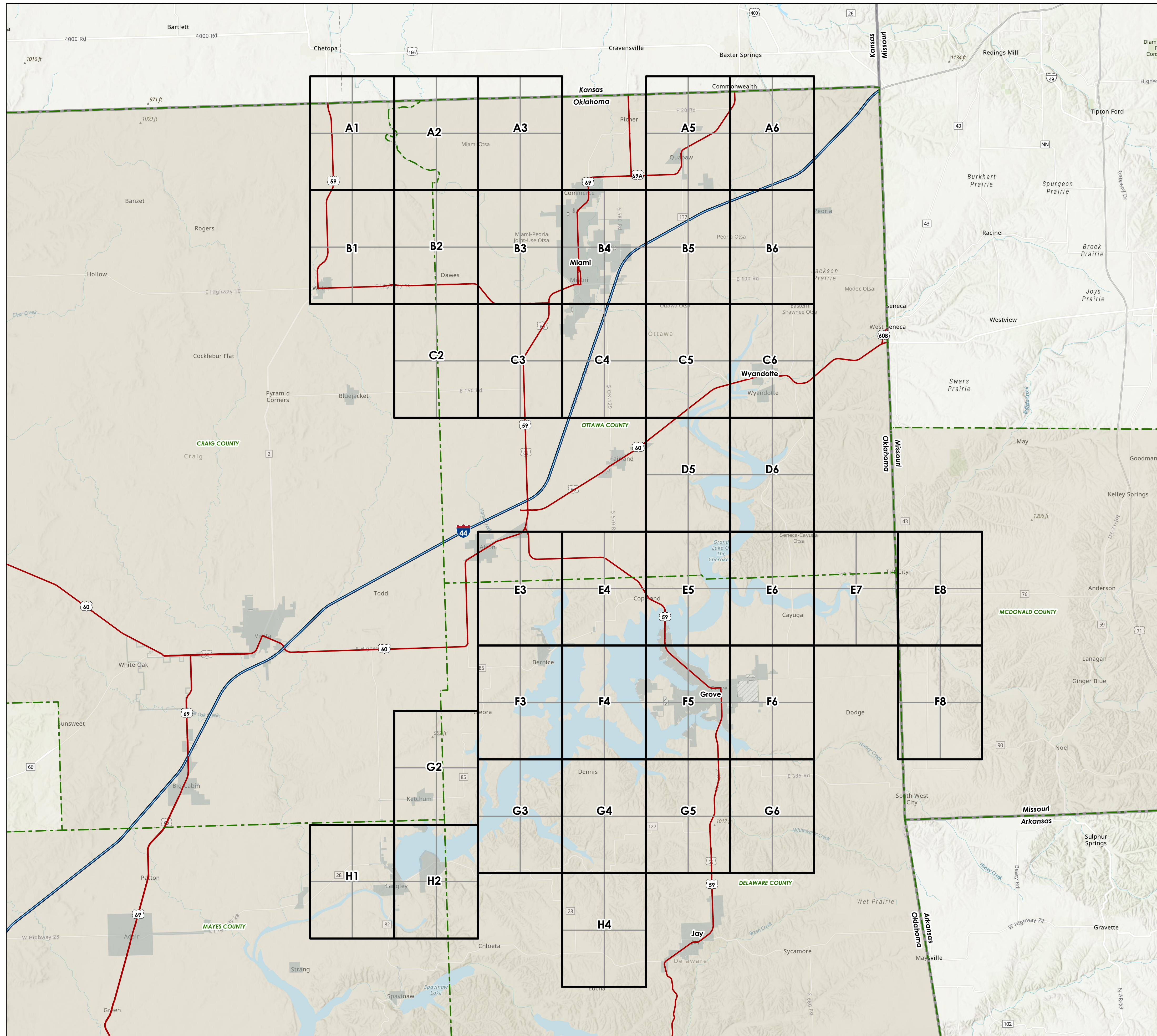
MAP: H4

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Upstream Model Results Overview Map

Pensacola Dam
GRAND RIVER DAM AUTHORITY
September 2022

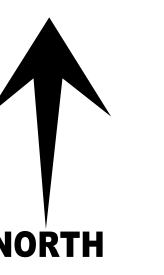
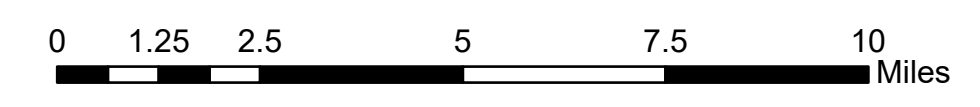
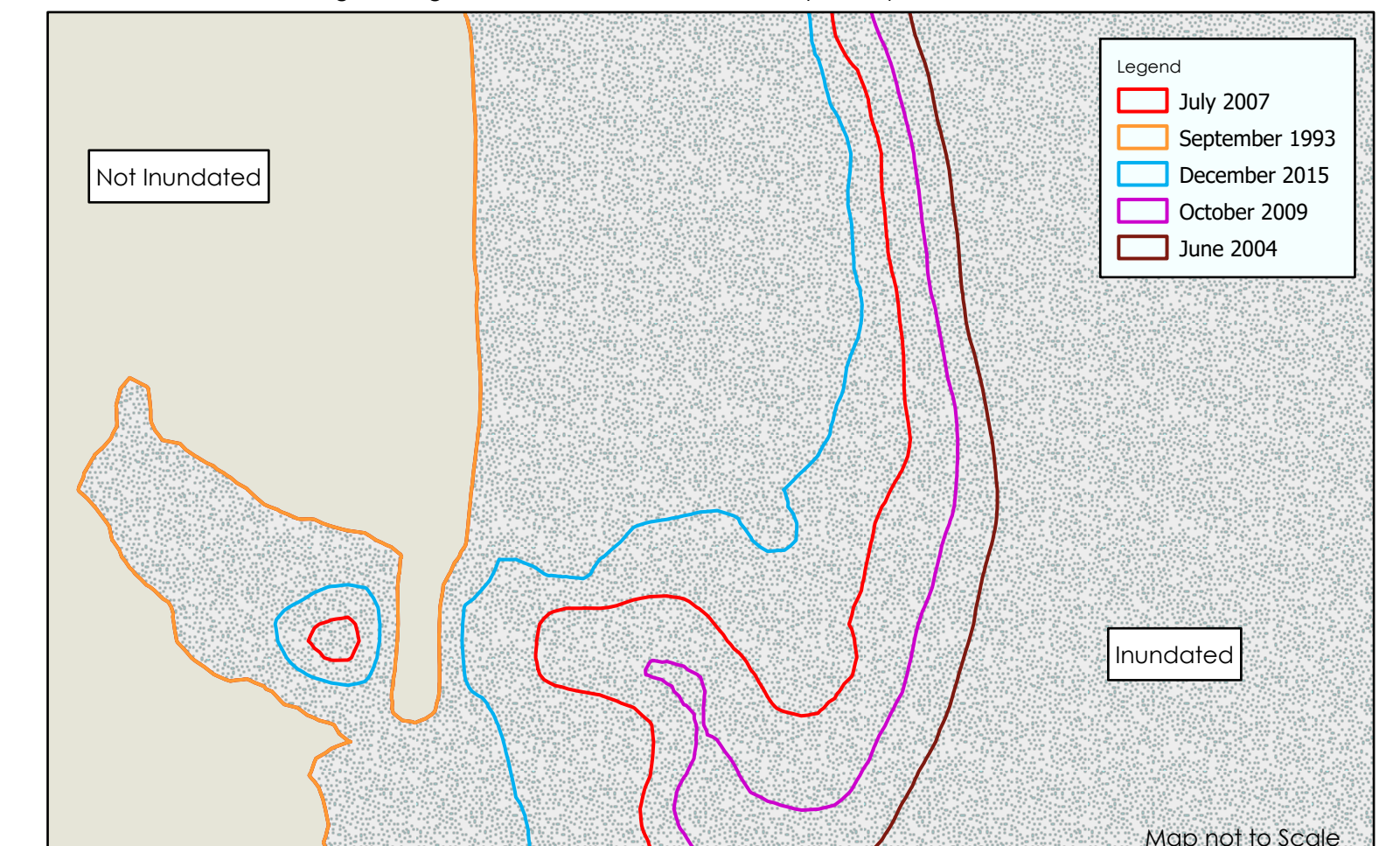


Overview Map Legend

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

Inundation Scenario Mapping

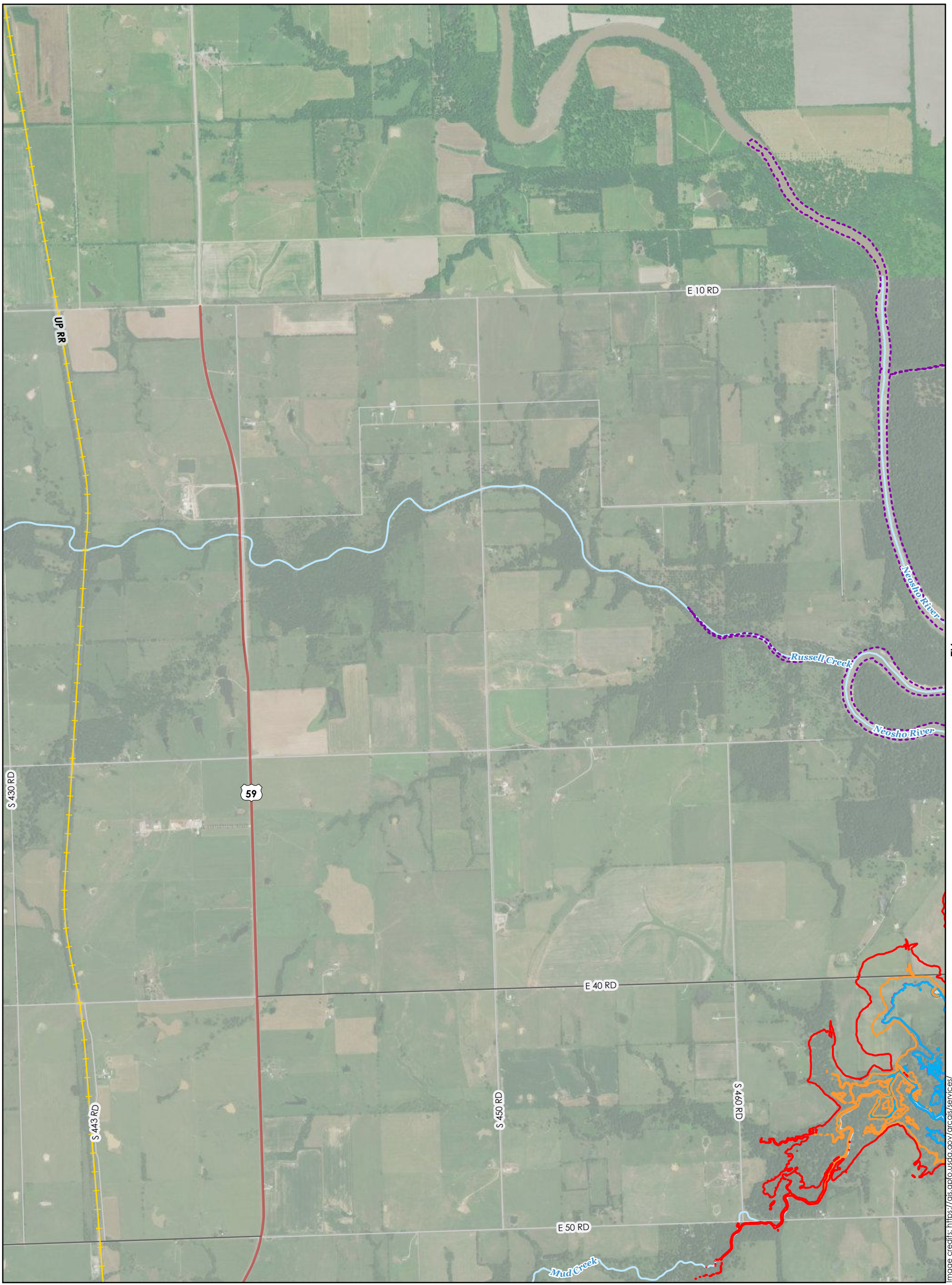
Mapping shows the extent of inundation for historical flow events, using the historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.



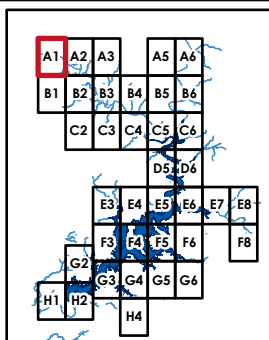
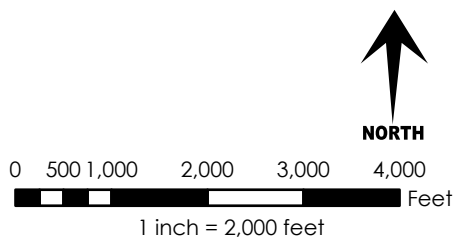
Map Notes

Data Sources for Maps:

1. Base map images from https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021
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>).
3. Parcels owned by GRDA are from GIS parcel data provided by County Assessor's Offices (2020).
4. The displayed Flowage Easement is equal to the 760-foot NGVD29 elevation contour, extracted from 2011 Dewberry LIDAR.



HISTORICAL INUNDATION SCENARIOS



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
 - + Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - █ GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

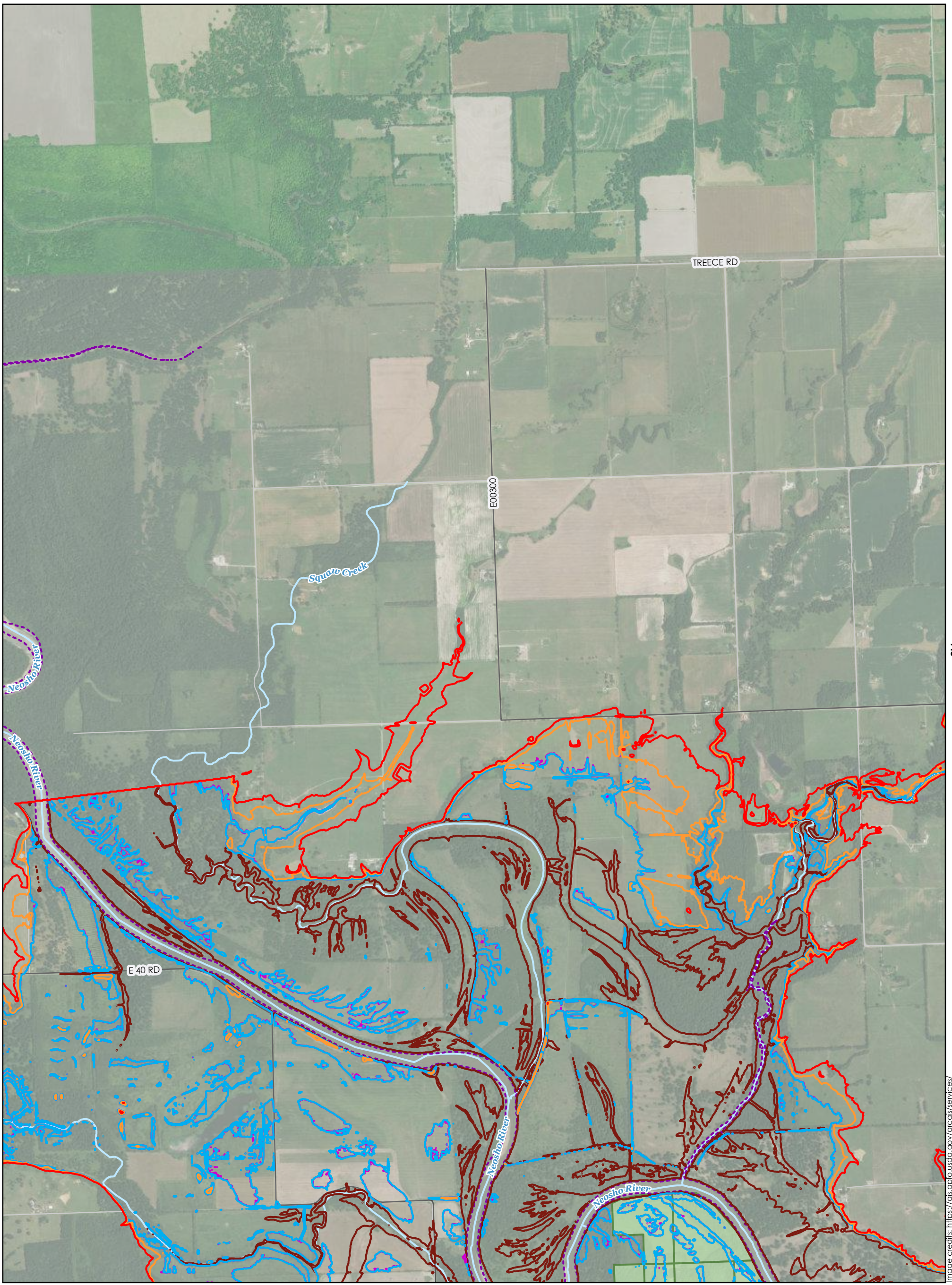
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: A1

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplbo.usda.gov/arcgls/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

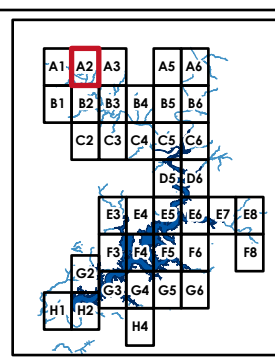


HISTORICAL INUNDATION SCENARIOS

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

1 inch = 2,000 feet

NORTH



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
 - Railroad
 - Stream
 - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

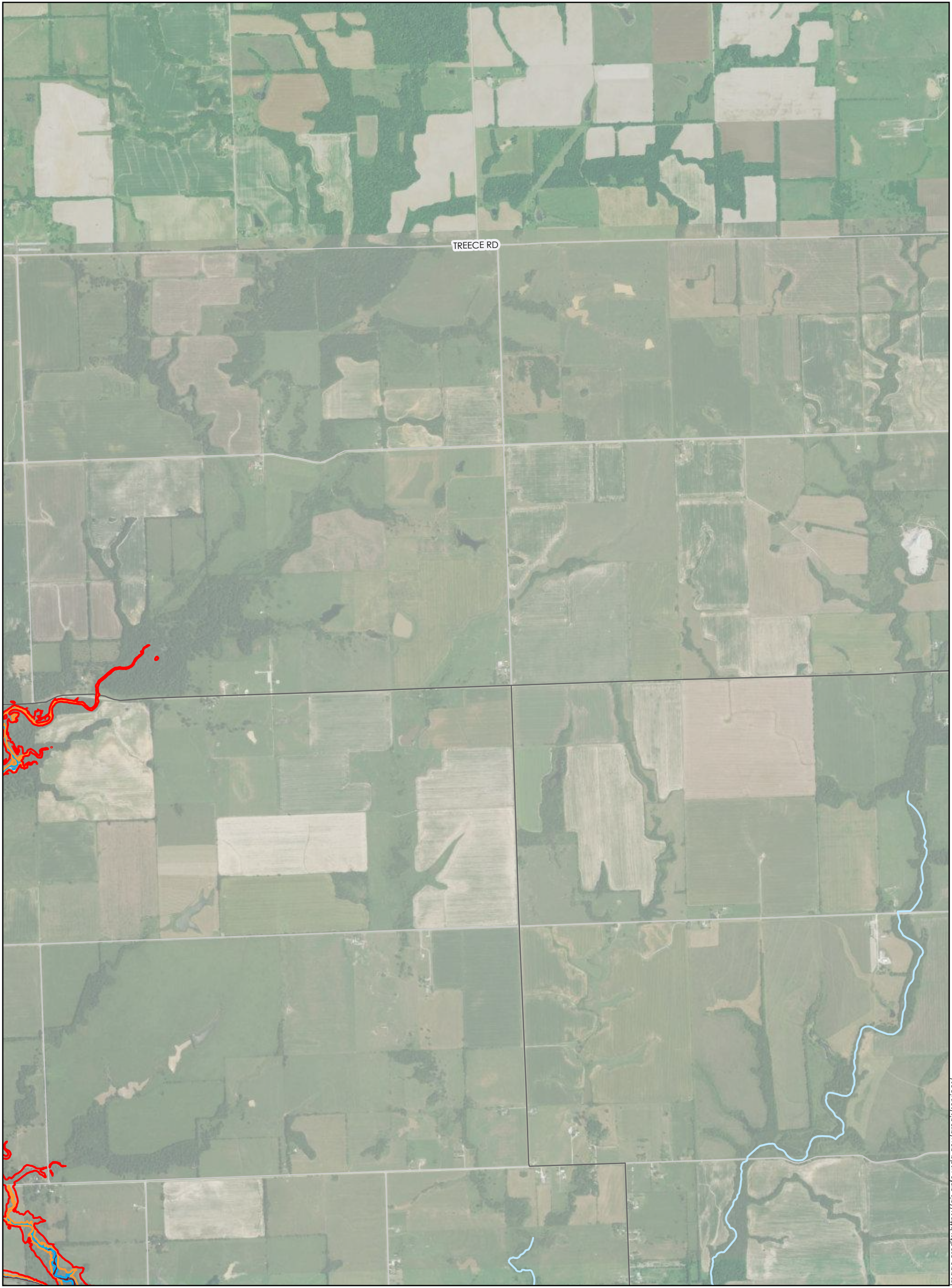
PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

MAP: A2

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022

Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer_2021



HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet

MAX INUNDATION

- █ July 2007
- █ September 1993
- █ December 2015
- █ October 2009
- █ June 2004

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

Legend

— Interstate	+ Railroad
— State Highway	— Stream
— US Highway	- - - Flowage Easements
— Major Collector	- - - Project Boundary
— Local Road	█ GRDA Ownership

PENSACOLA DAM

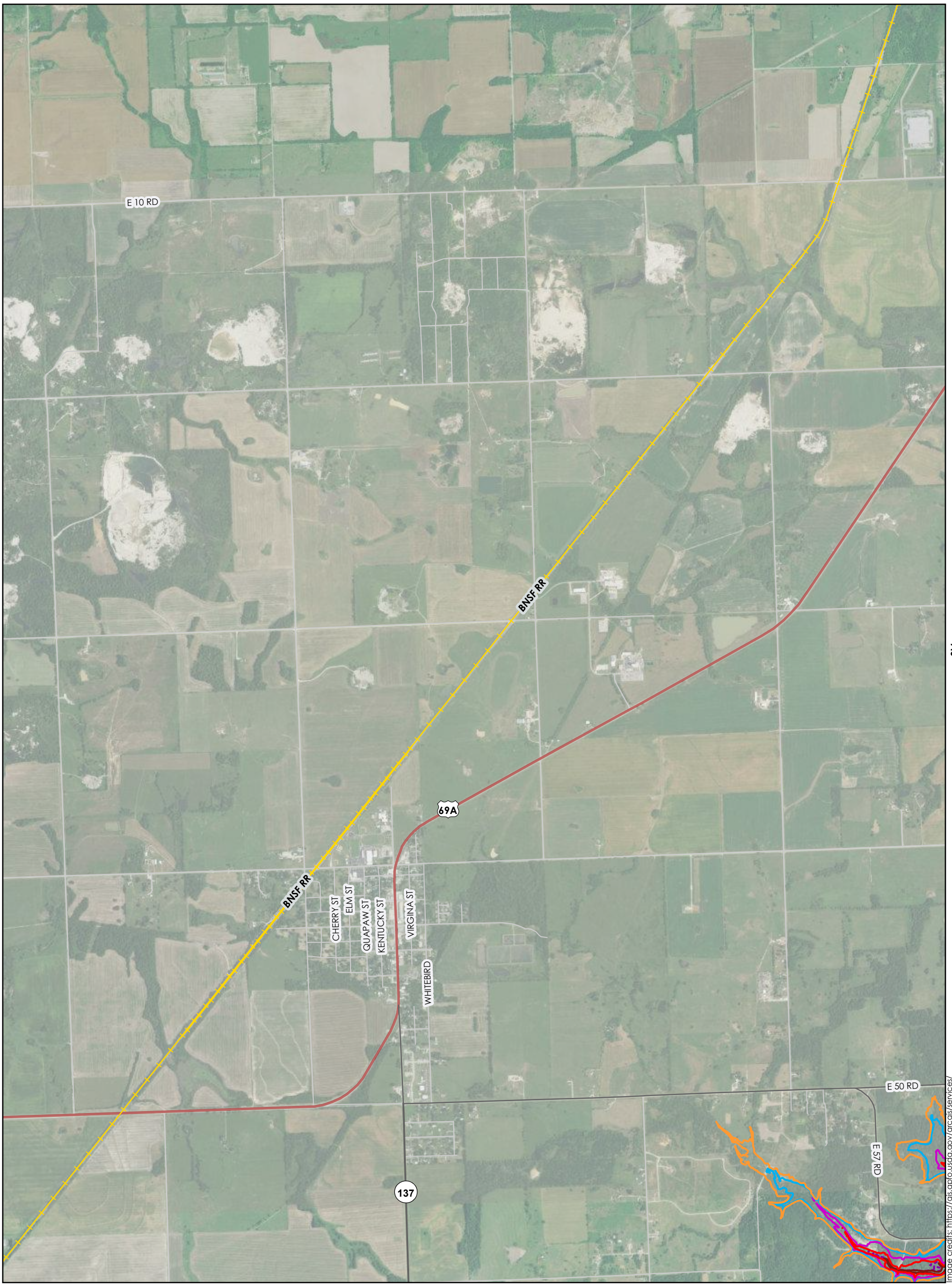
GRAND RIVER DAM AUTHORITY

MAP: A3

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

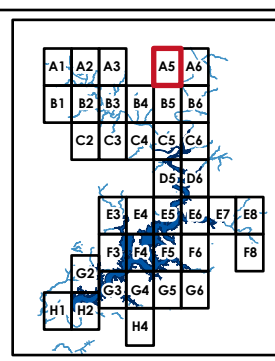
Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021



HISTORICAL INUNDATION SCENARIOS

0 500 1,000 2,000 3,000 4,000 Feet
1 inch = 2,000 feet

NORTH



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- Railroad
 - Stream
 - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: A5

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

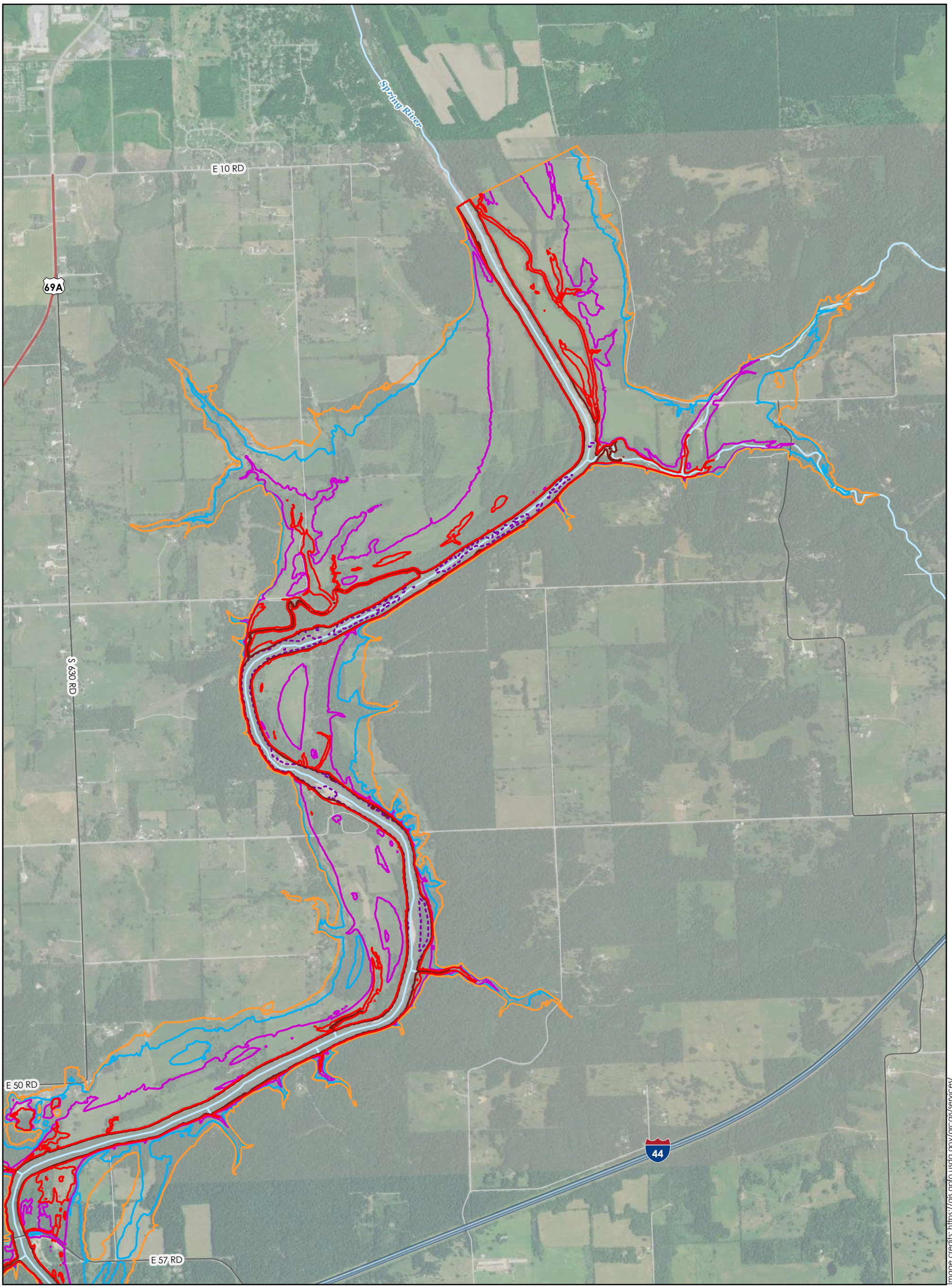


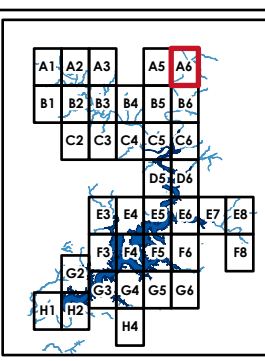
Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

HISTORICAL INUNDATION SCENARIOS

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

1 inch = 2,000 feet

NORTH



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- + Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - █ GRDA Ownership

MAP NOTES

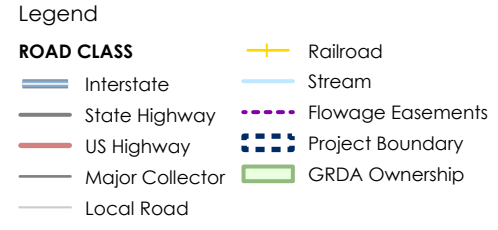
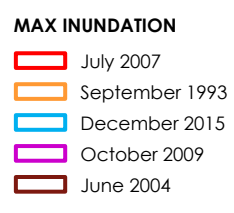
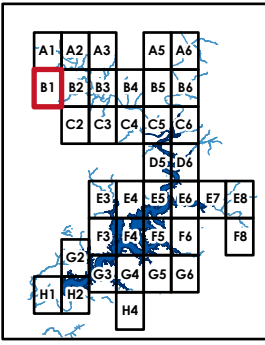
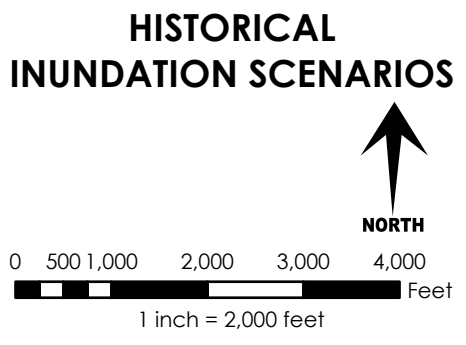
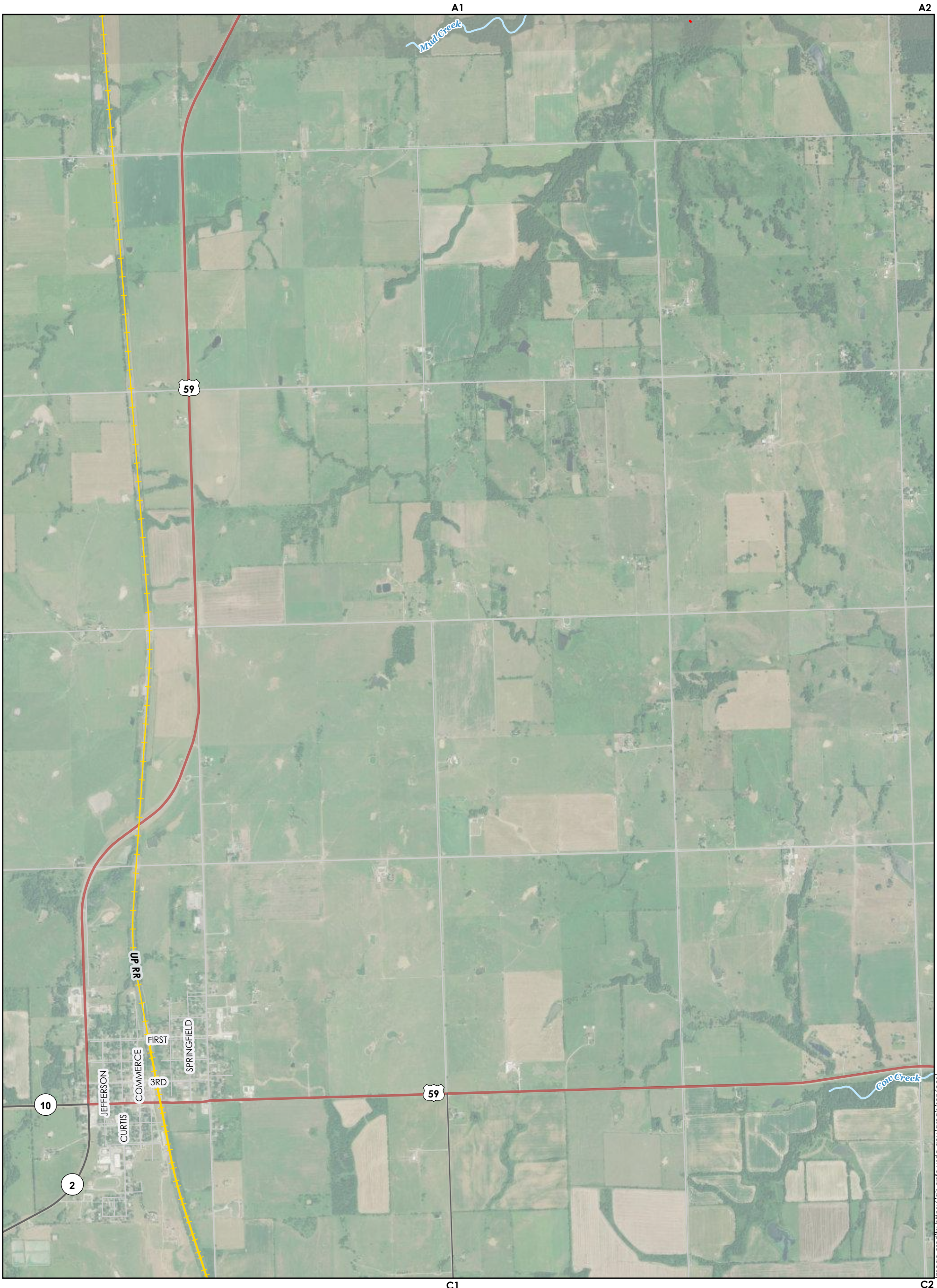
1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: A6

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM

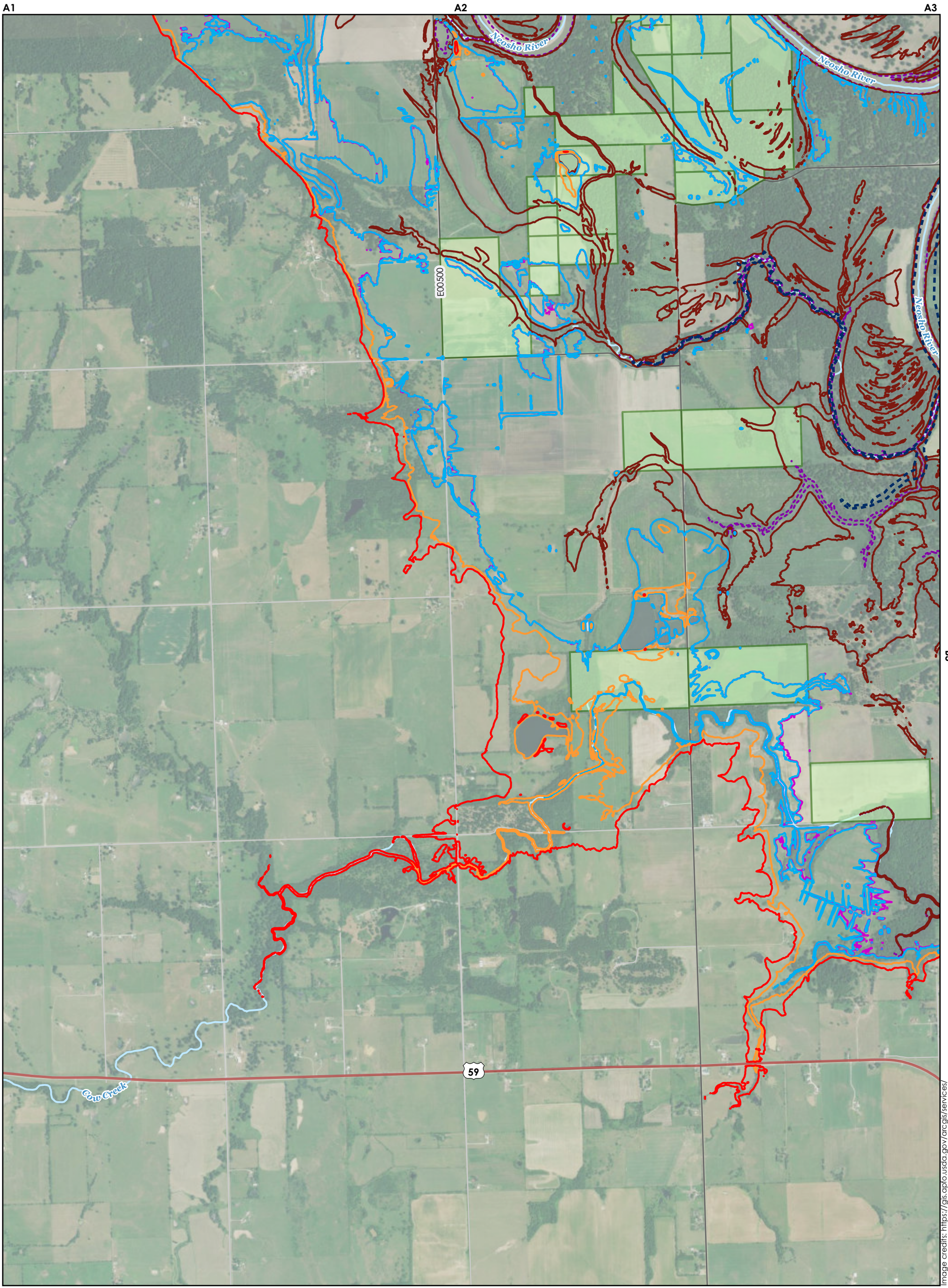
GRAND RIVER DAM AUTHORITY

MAP: B1

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

A1 A2 B2 B2 C1 C2
Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021



HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet

A1	A2	A3	A4	A5	A6
B1	B2	B3	B4	B5	B6
C1	C2	C3	C4	C5	C6
			D5	D6	
		E3	E4	E5	E6
		F3	F4	F5	F6
		G2	G3	G4	G5
		H1	H2	H3	H4

<p>MAX INUNDATION</p> <ul style="list-style-type: none"> █ July 2007 █ September 1993 █ December 2015 █ October 2009 █ June 2004 	<p>ROAD CLASS</p> <ul style="list-style-type: none"> — Interstate — State Highway — US Highway — Major Collector — Local Road 	<p>Legend</p> <ul style="list-style-type: none"> — Railroad — Stream — Flowage Easements - - - Project Boundary █ GRDA Ownership
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MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM

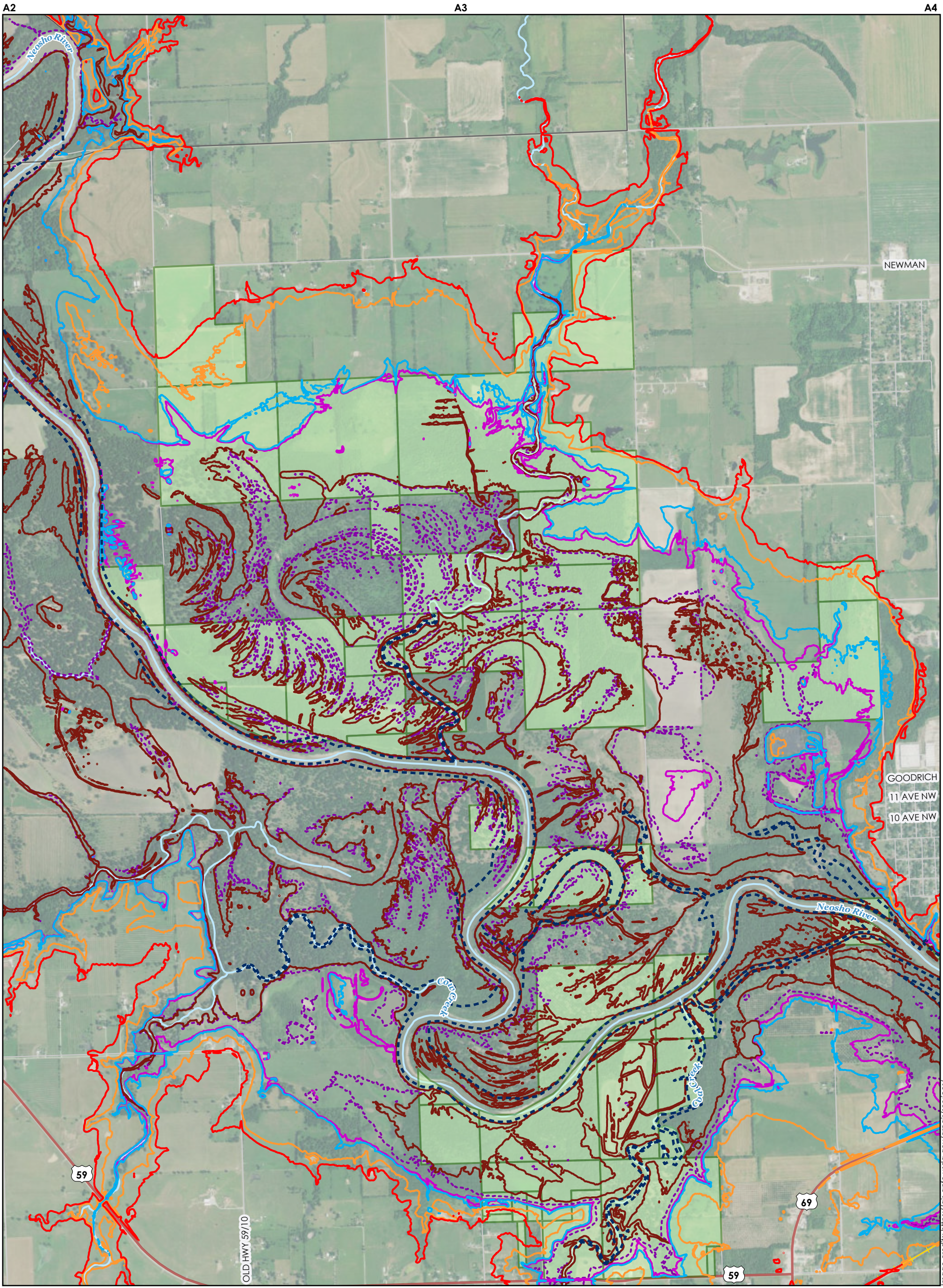
GRAND RIVER DAM AUTHORITY

MAP: B2

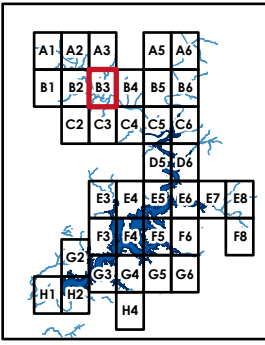
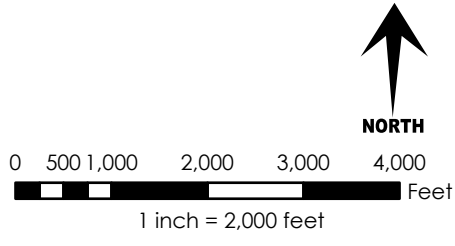
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021



HISTORICAL INUNDATION SCENARIOS



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
 - Railroad
 - Stream
 - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

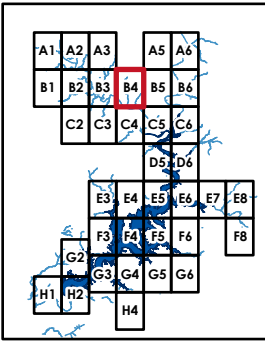
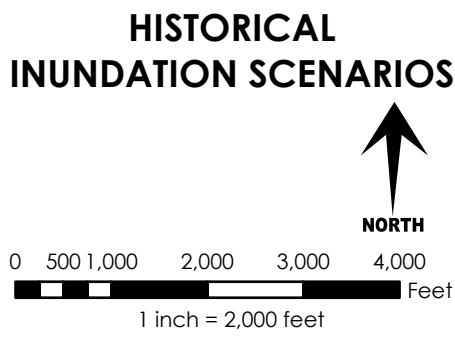
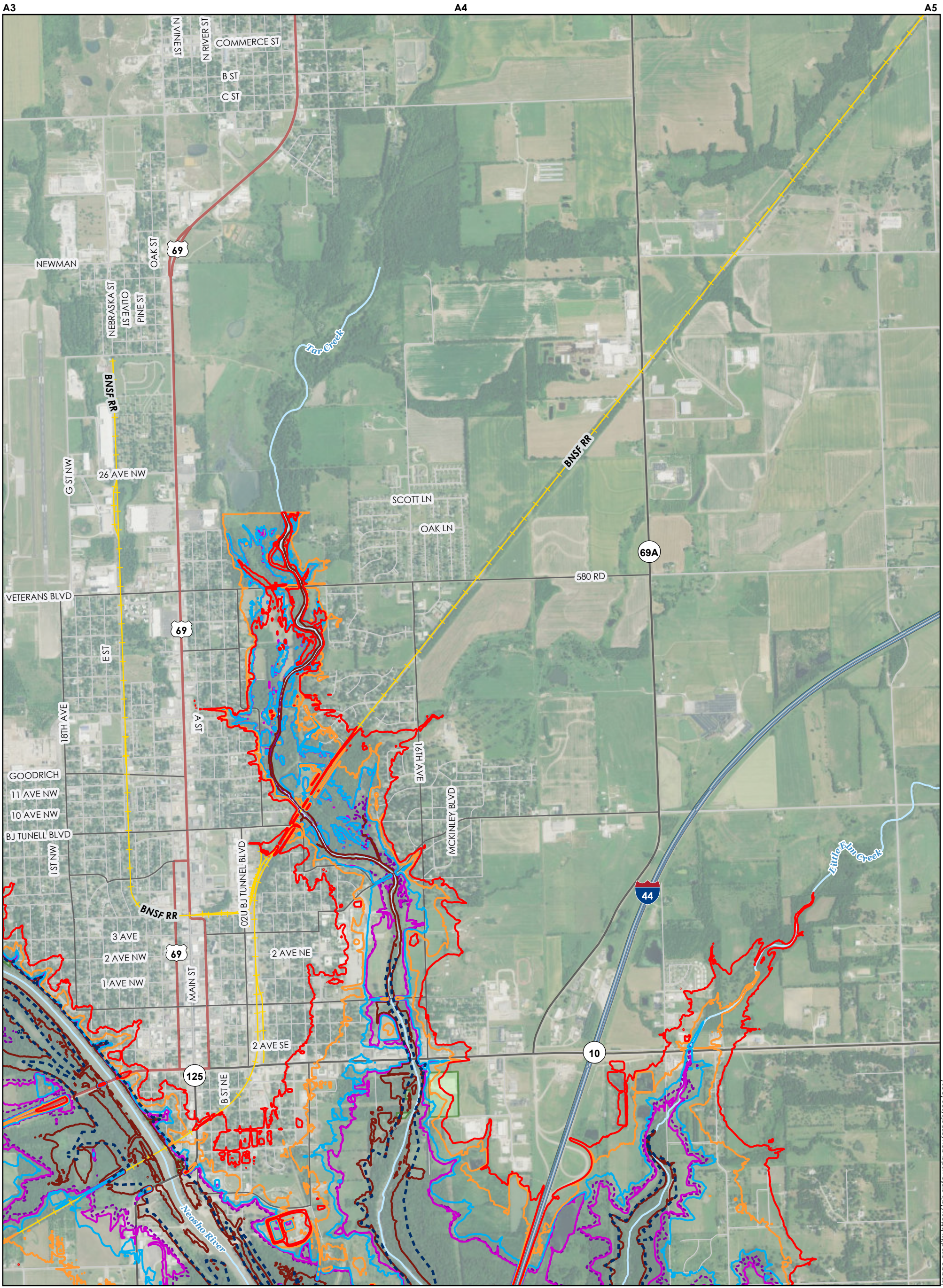
PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: B3

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

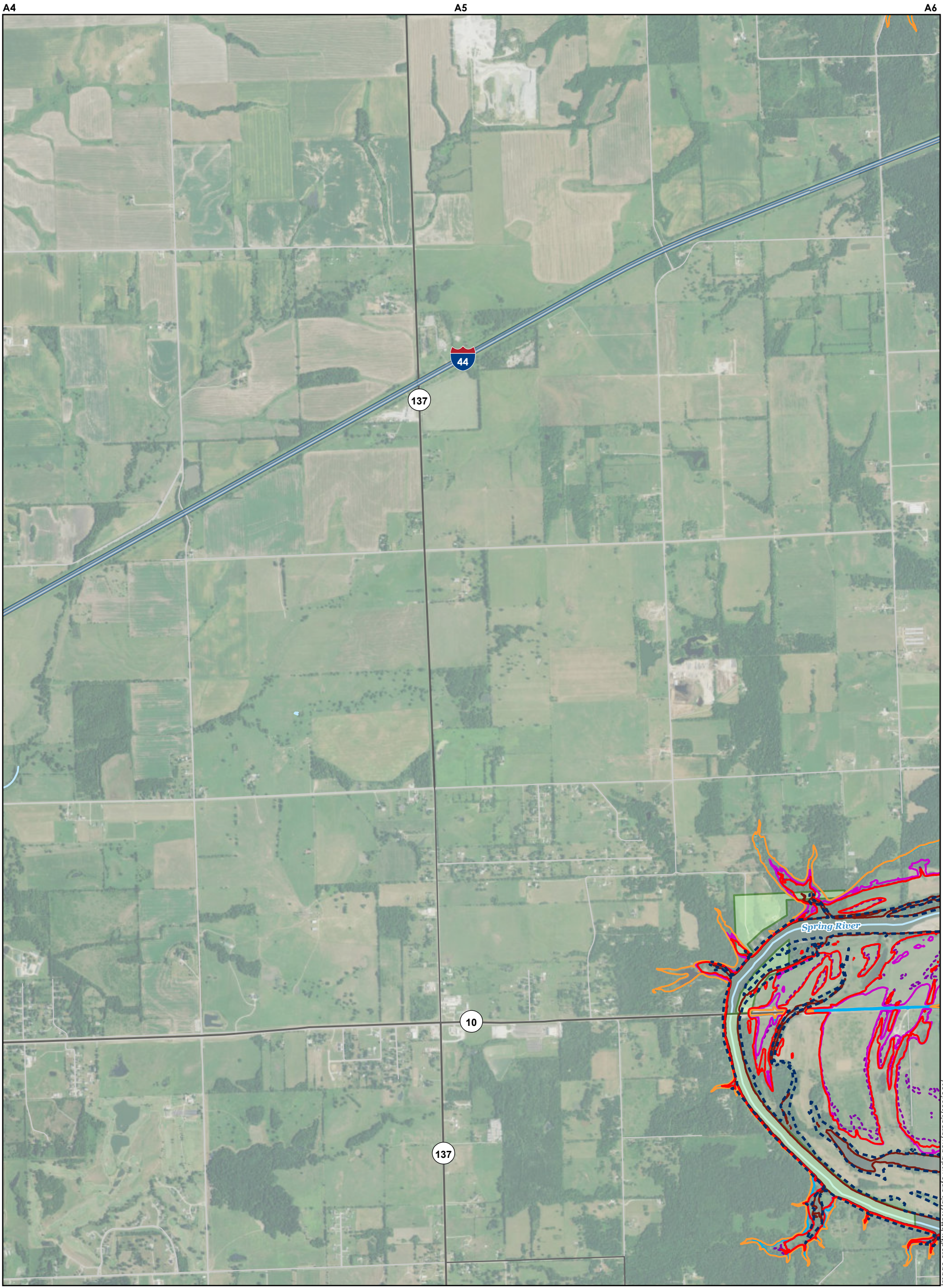
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: B4

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

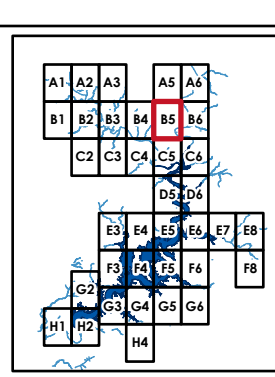


HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- MAP NOTES**
1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
 2. See Overview Map for notes on data sources.

- Legend**
- Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

PENSACOLA DAM
 GRAND RIVER DAM AUTHORITY

MAP: B5

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
 September 2022

Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

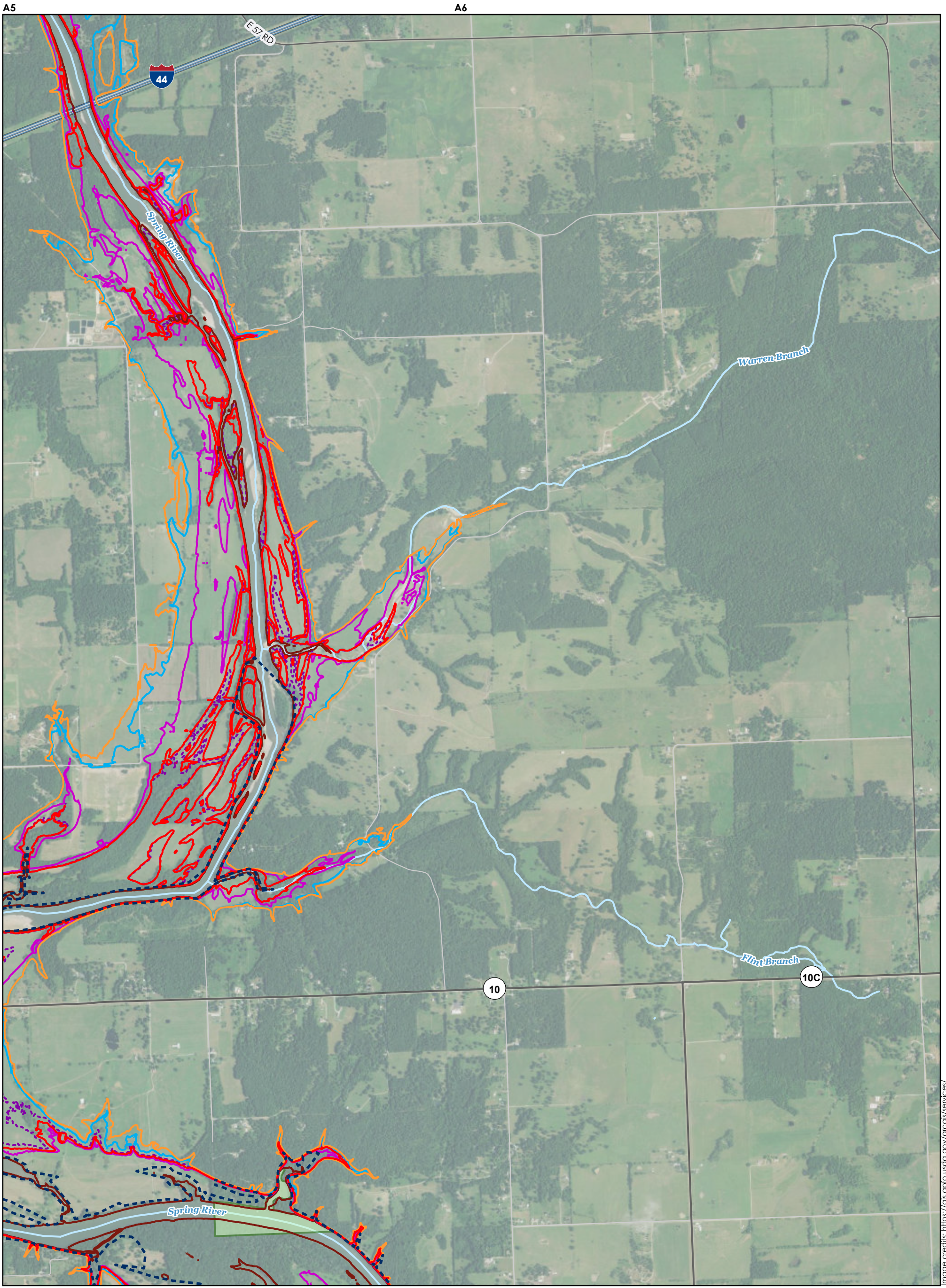


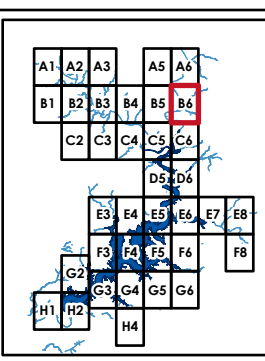
Image credits: https://gis.apfo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- + Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - █ GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

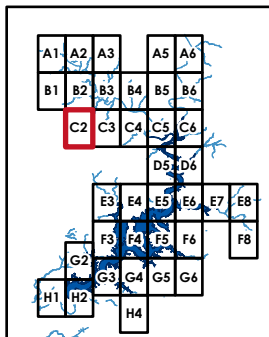
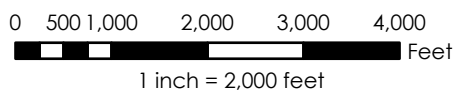
MAP: B6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS



MAX INUNDATION

- July 2007
- September 1993
- December 2015
- October 2009
- June 2004

Legend

- | | |
|---|--|
| Interstate | Railroad |
| State Highway | Stream |
| US Highway | Flowage Easements |
| Major Collector | Project Boundary |
| Local Road | GRDA Ownership |

MAP NOTES

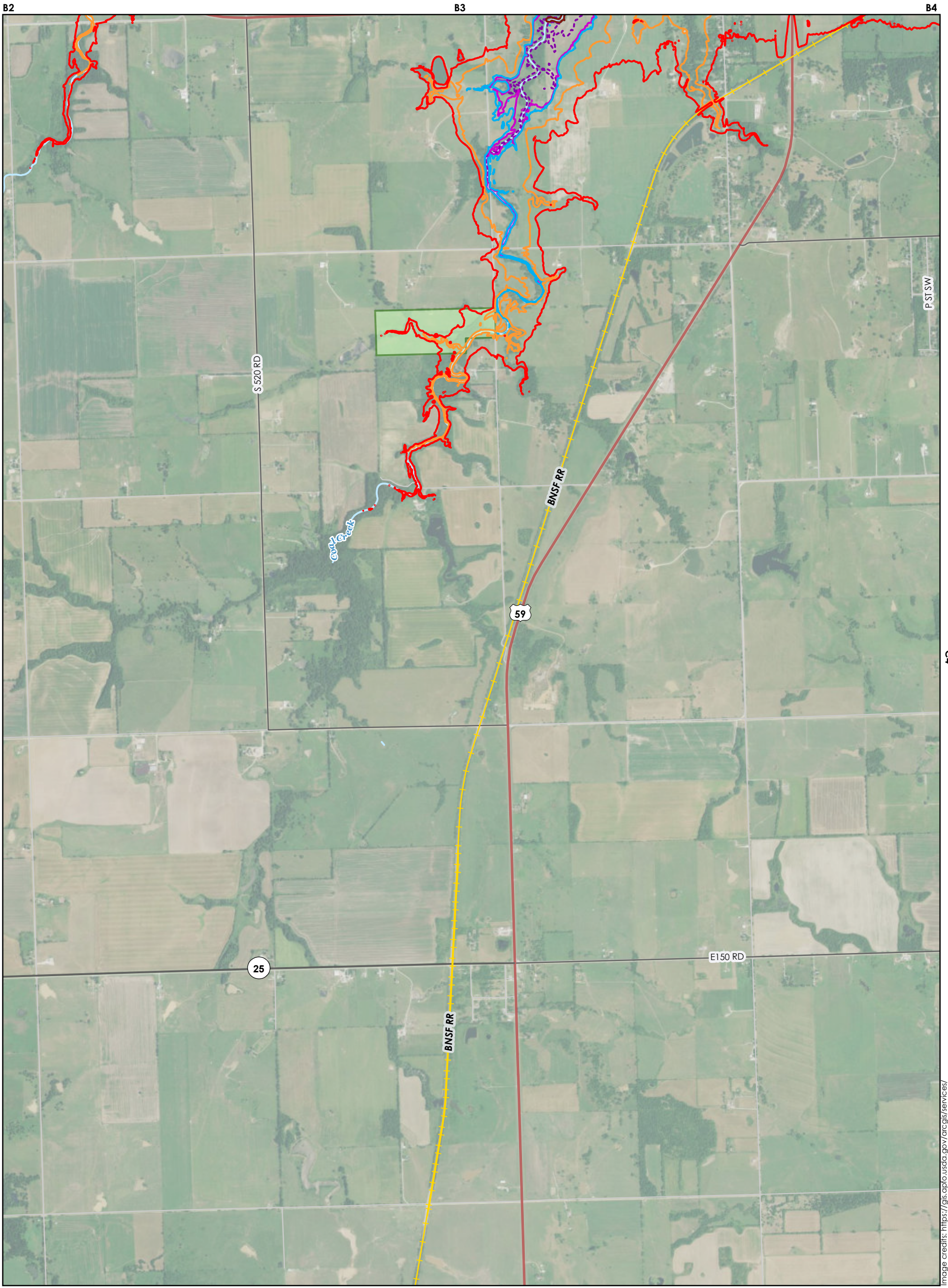
1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

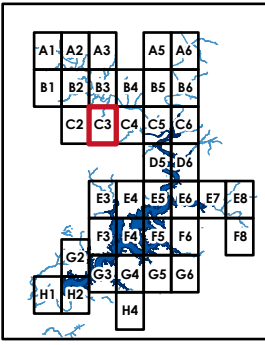
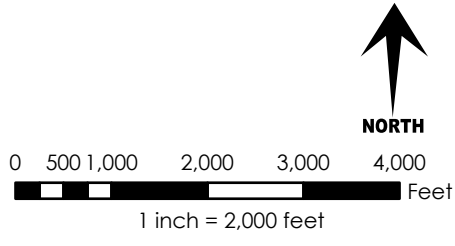
MAP: C2

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
 - Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - █ GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

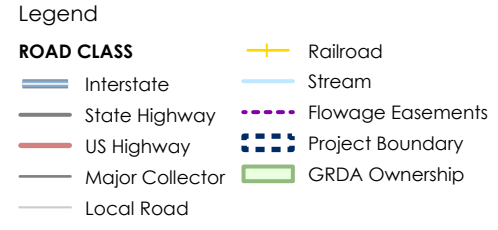
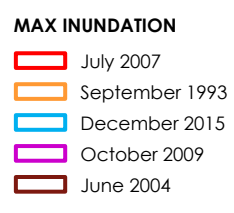
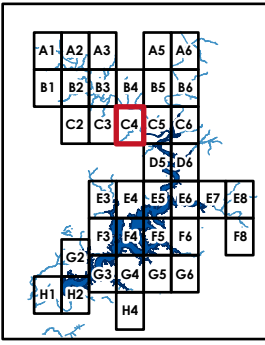
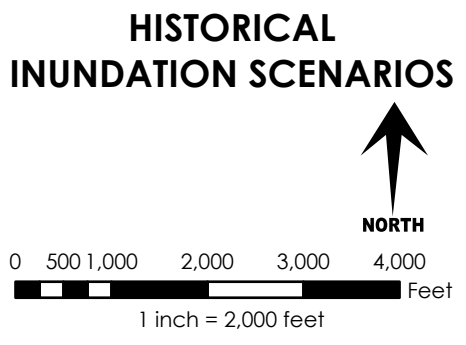
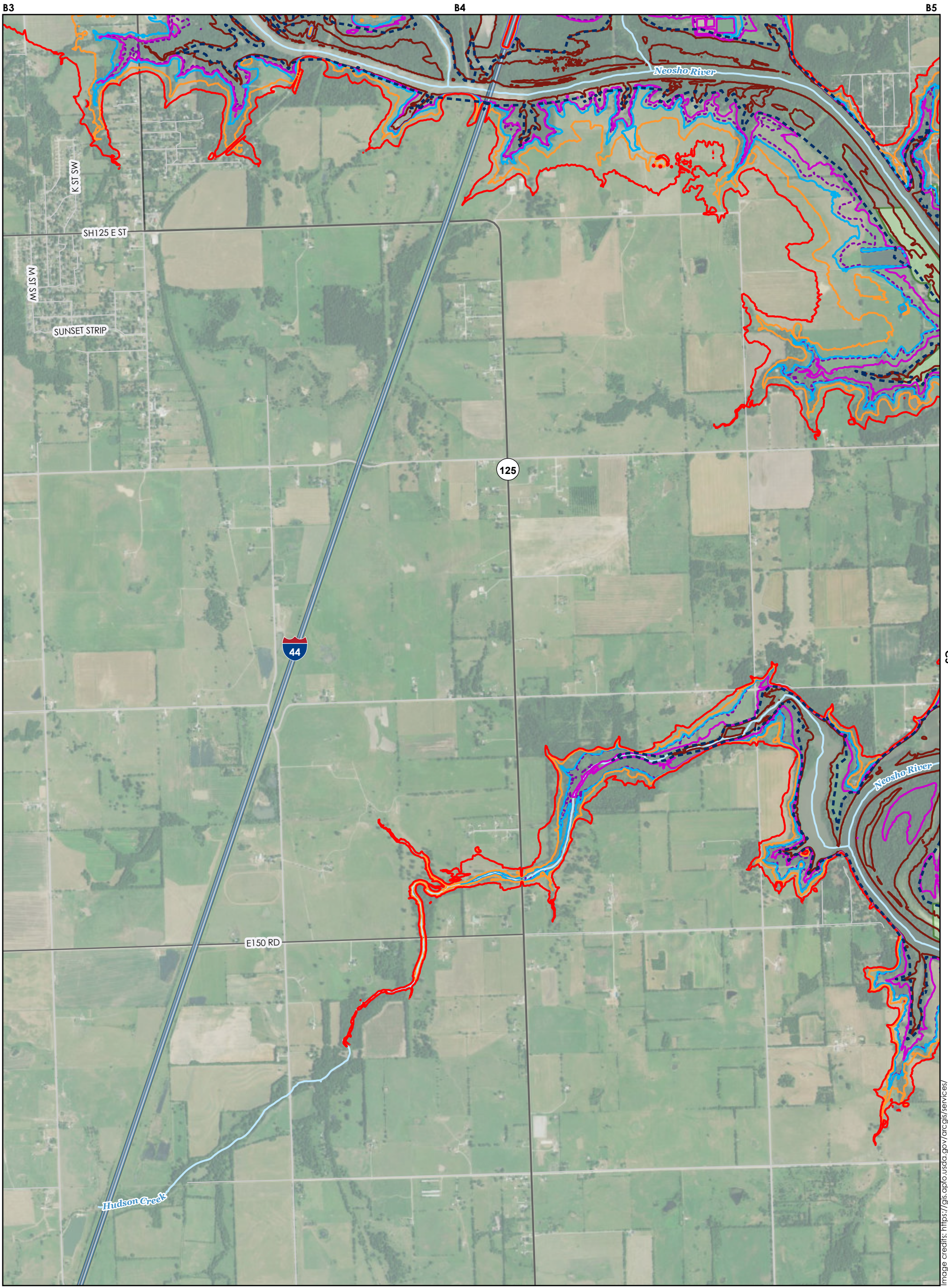
PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: C3

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.cplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021



MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM

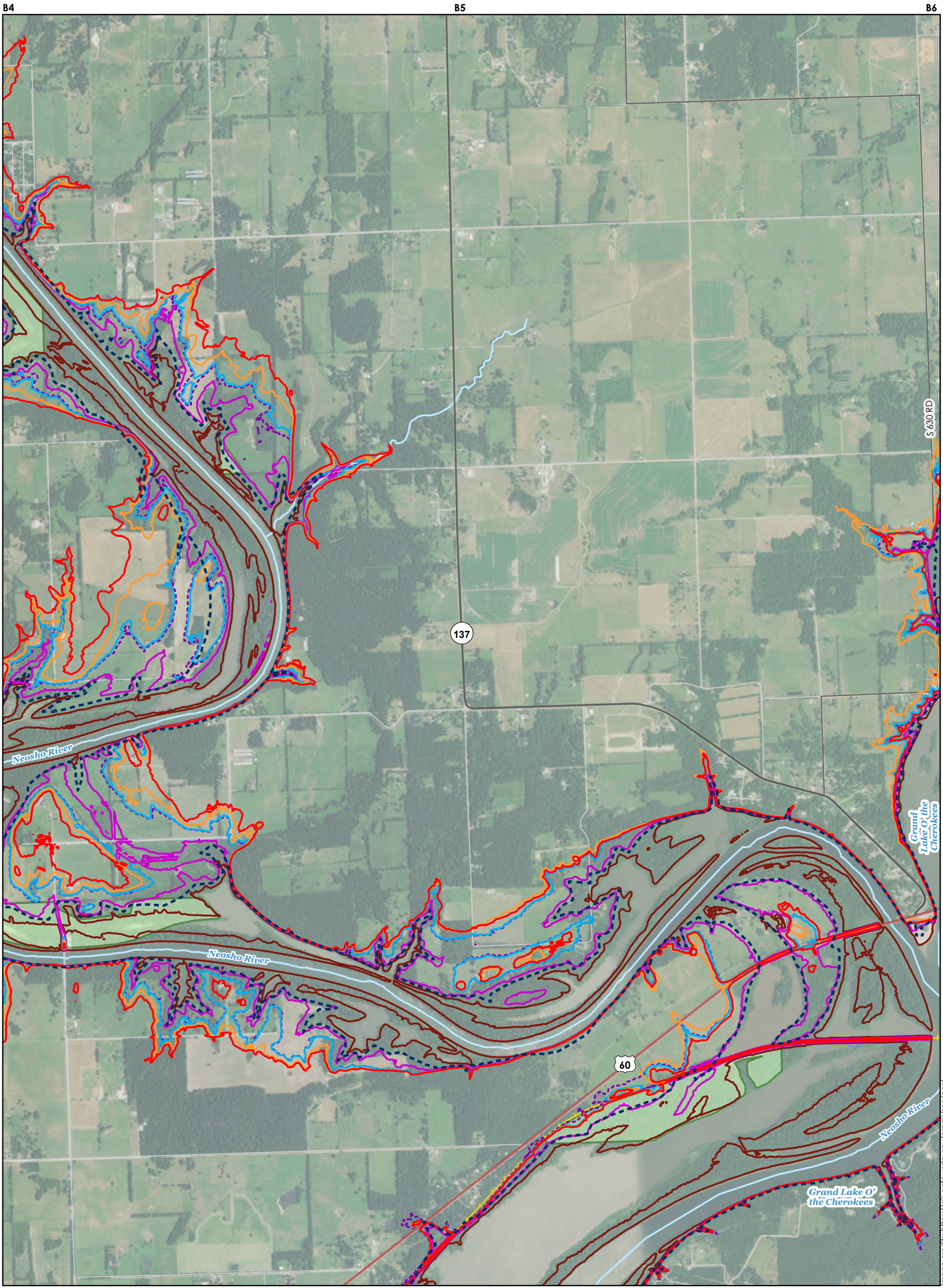
GRAND RIVER DAM AUTHORITY

MAP: C4

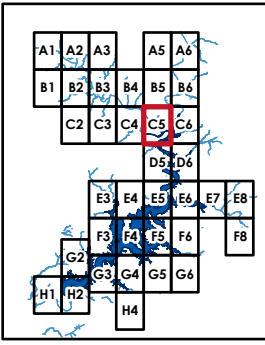
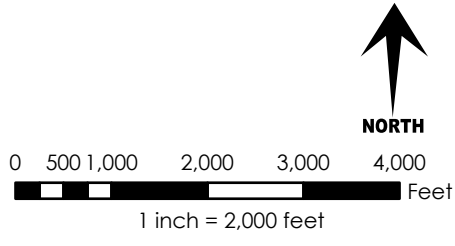
CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer_2021



HISTORICAL INUNDATION SCENARIOS



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: C5

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

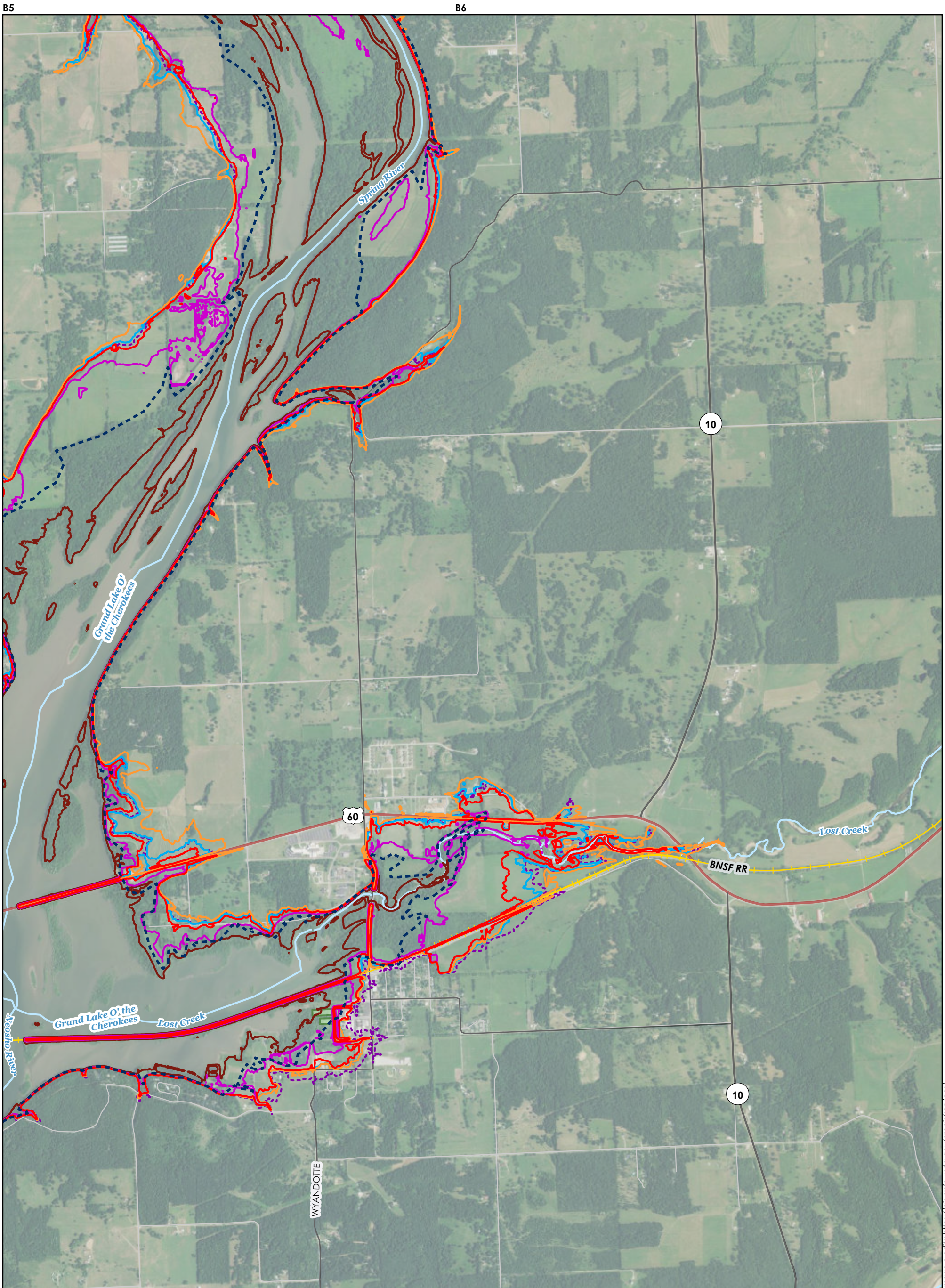


Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet

A1	A2	A3	A4	A5	A6
B1	B2	B3	B4	B5	B6
C2	C3	C4	C5	C6	
			D5	D6	
	E3	E4	E5	E6	E7
	F3	F4	F5	F6	F8
	G2	G3	G4	G5	G6
H1	H2		H4		

<p>MAX INUNDATION</p> <ul style="list-style-type: none"> ▬ July 2007 ▬ September 1993 ▬ December 2015 ▬ October 2009 ▬ June 2004 <p>MAP NOTES</p> <ol style="list-style-type: none"> 1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model. 2. See Overview Map for notes on data sources. 	<p>Legend</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p>ROAD CLASS</p> <ul style="list-style-type: none"> ▬ Interstate ▬ State Highway ▬ US Highway ▬ Major Collector ▬ Local Road </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> + Railroad ▬ Stream ▬ Flowage Easements - - - Project Boundary ▬ GRDA Ownership </td> </tr> </table>	<p>ROAD CLASS</p> <ul style="list-style-type: none"> ▬ Interstate ▬ State Highway ▬ US Highway ▬ Major Collector ▬ Local Road 	<ul style="list-style-type: none"> + Railroad ▬ Stream ▬ Flowage Easements - - - Project Boundary ▬ GRDA Ownership
<p>ROAD CLASS</p> <ul style="list-style-type: none"> ▬ Interstate ▬ State Highway ▬ US Highway ▬ Major Collector ▬ Local Road 	<ul style="list-style-type: none"> + Railroad ▬ Stream ▬ Flowage Easements - - - Project Boundary ▬ GRDA Ownership 		

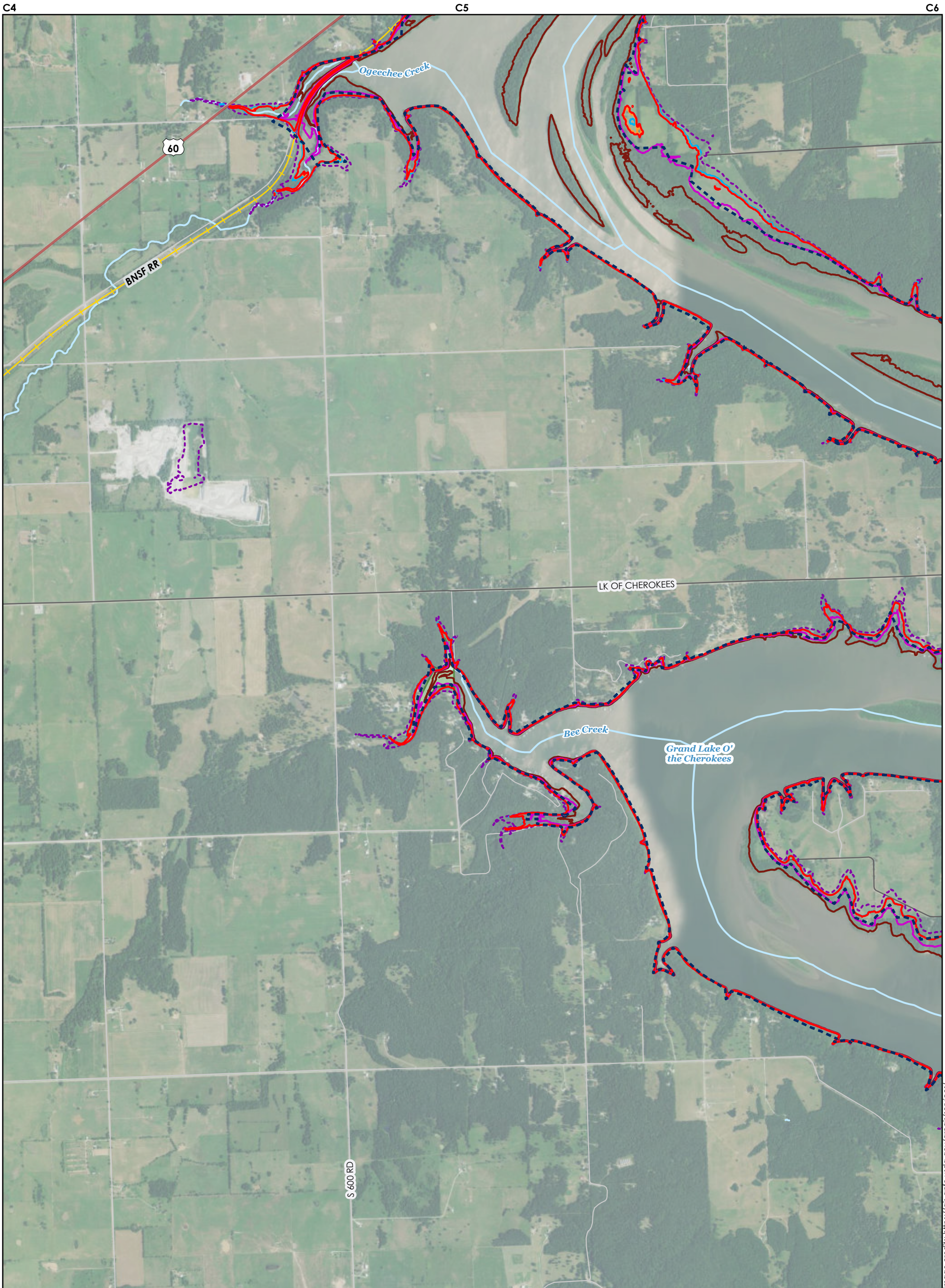
PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

MAP: C6

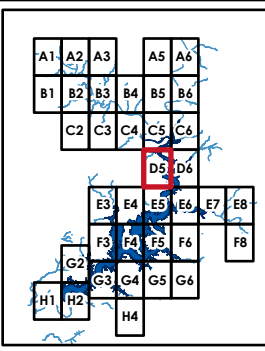
CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS

NORTH



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

MAP: D5

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

C5

C6

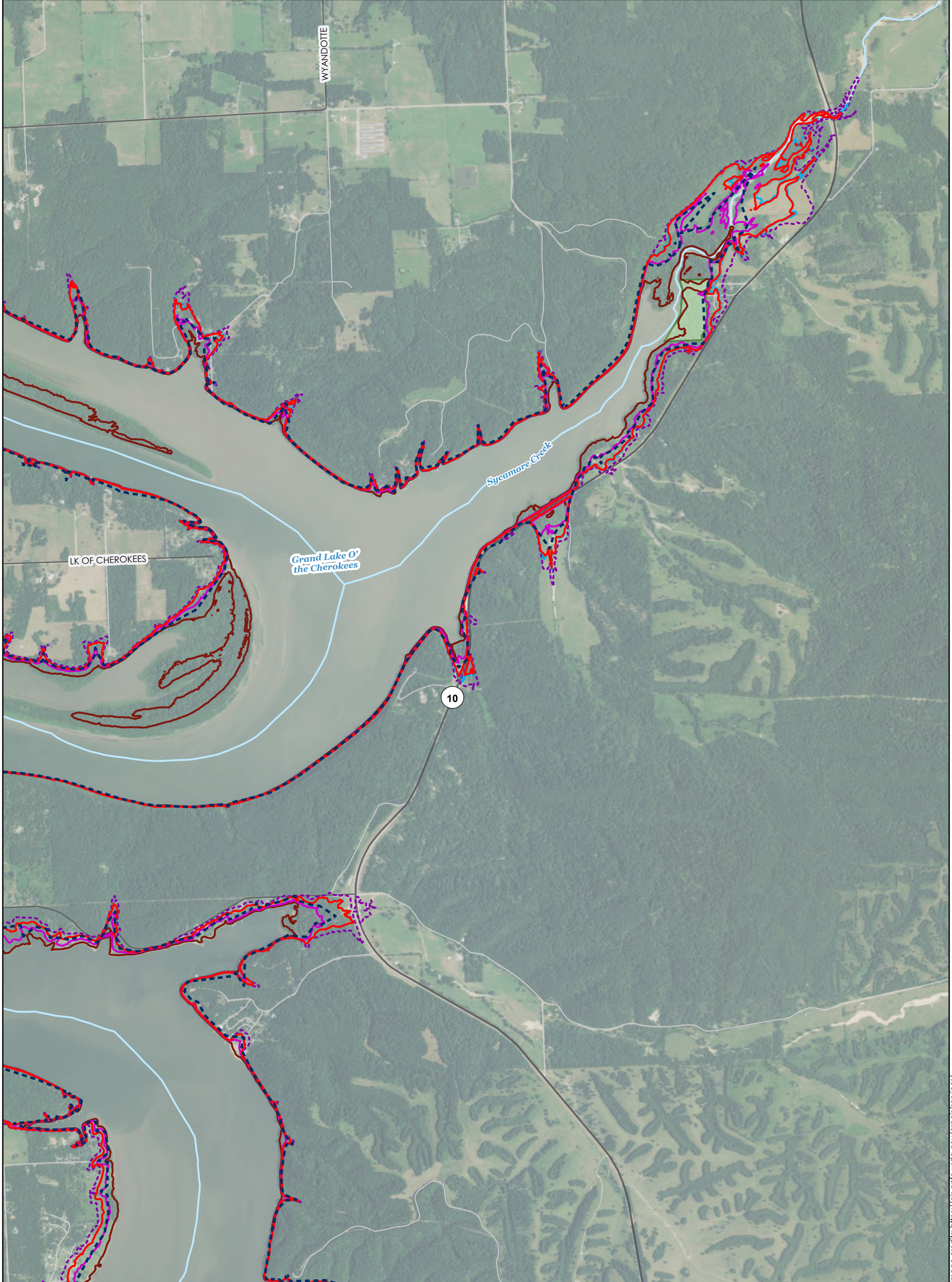


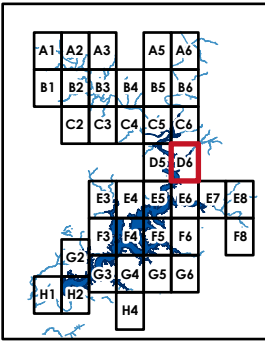
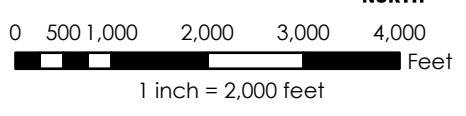
Image credits: https://gis.cplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

E5

E6

E7

HISTORICAL INUNDATION SCENARIOS



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
 - + Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: D6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

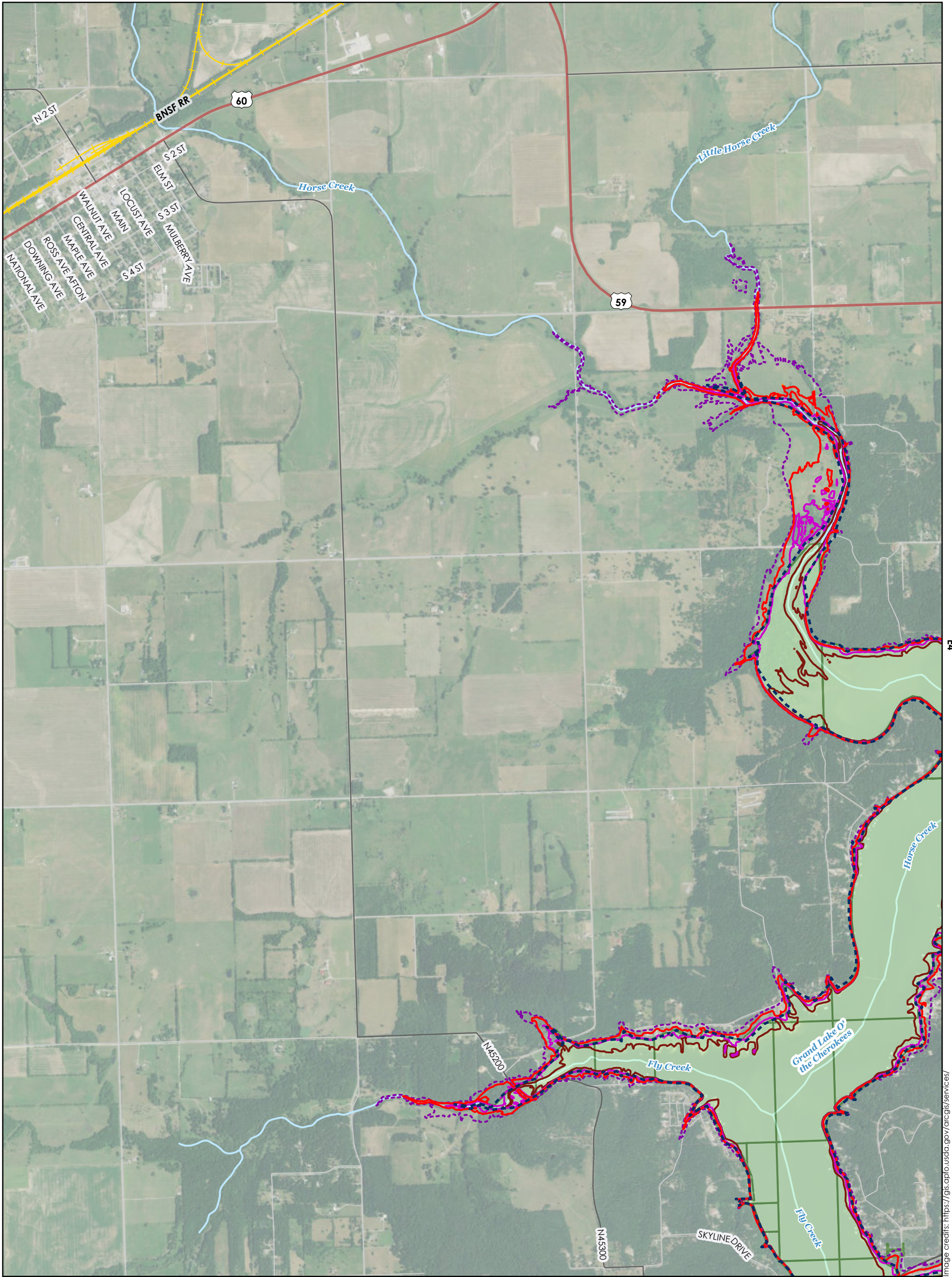
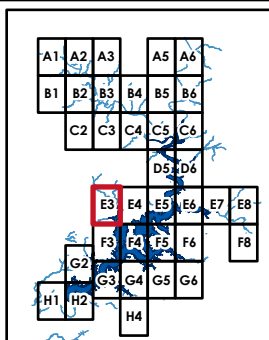
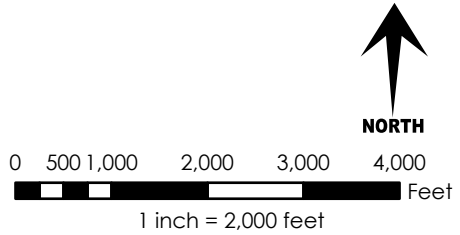


Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

HISTORICAL INUNDATION SCENARIOS



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- + Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - █ GRDA Ownership

MAP NOTES

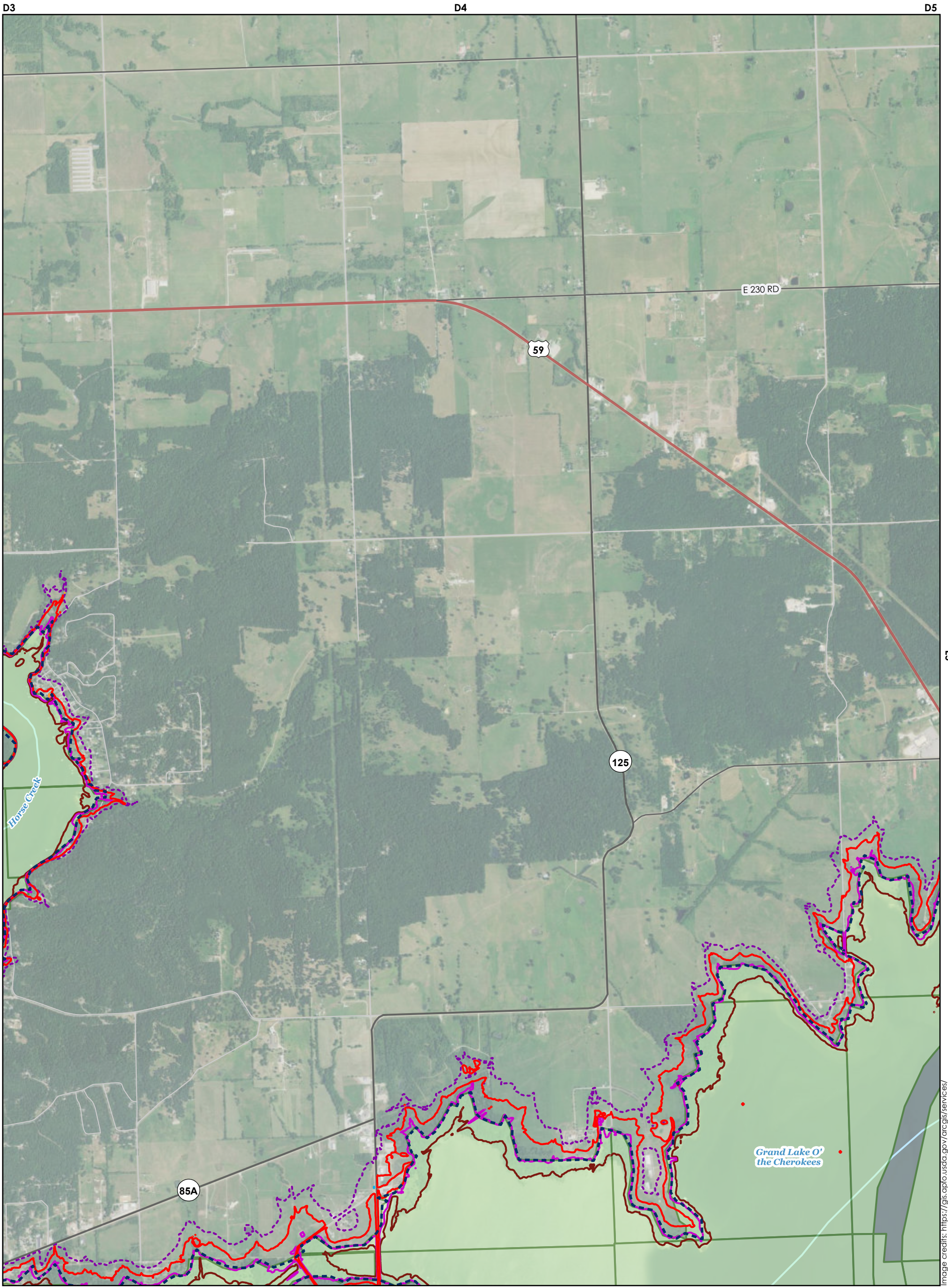
1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

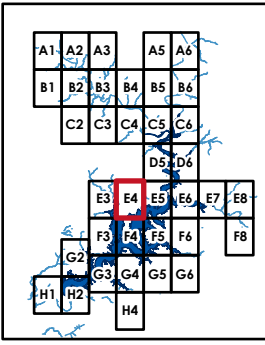
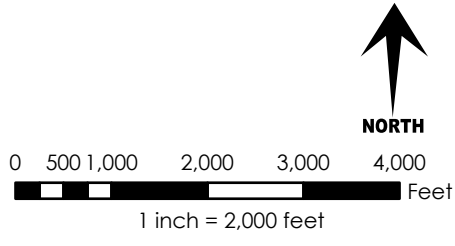
MAP: E3

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- + Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

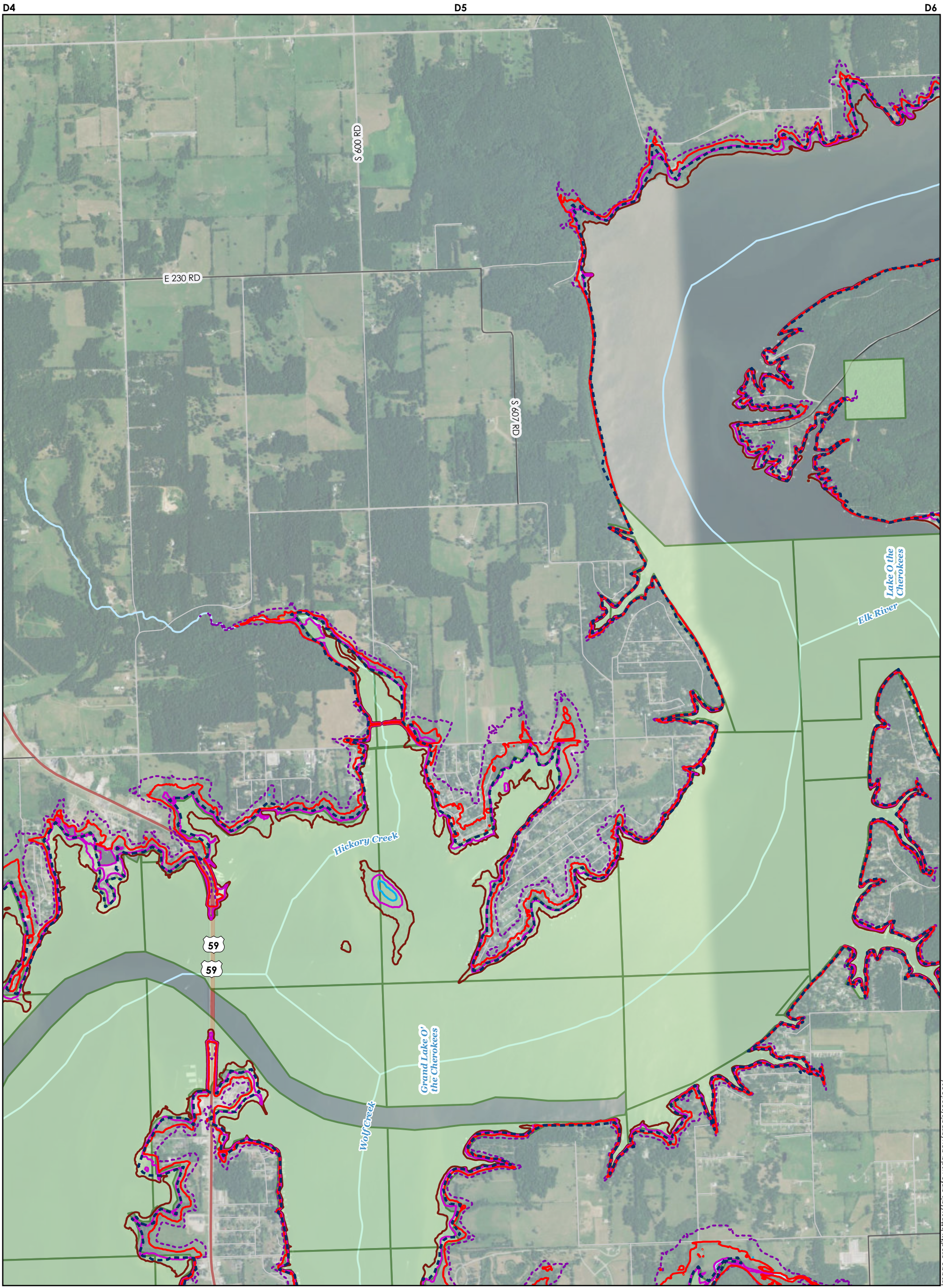
PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: E4

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

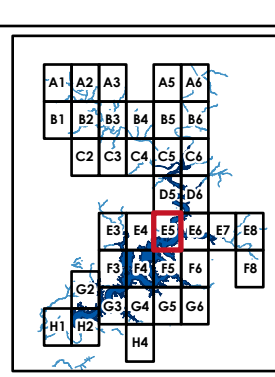


HISTORICAL INUNDATION SCENARIOS

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

1 inch = 2,000 feet

NORTH



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004
- MAP NOTES**
1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
 2. See Overview Map for notes on data sources.

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

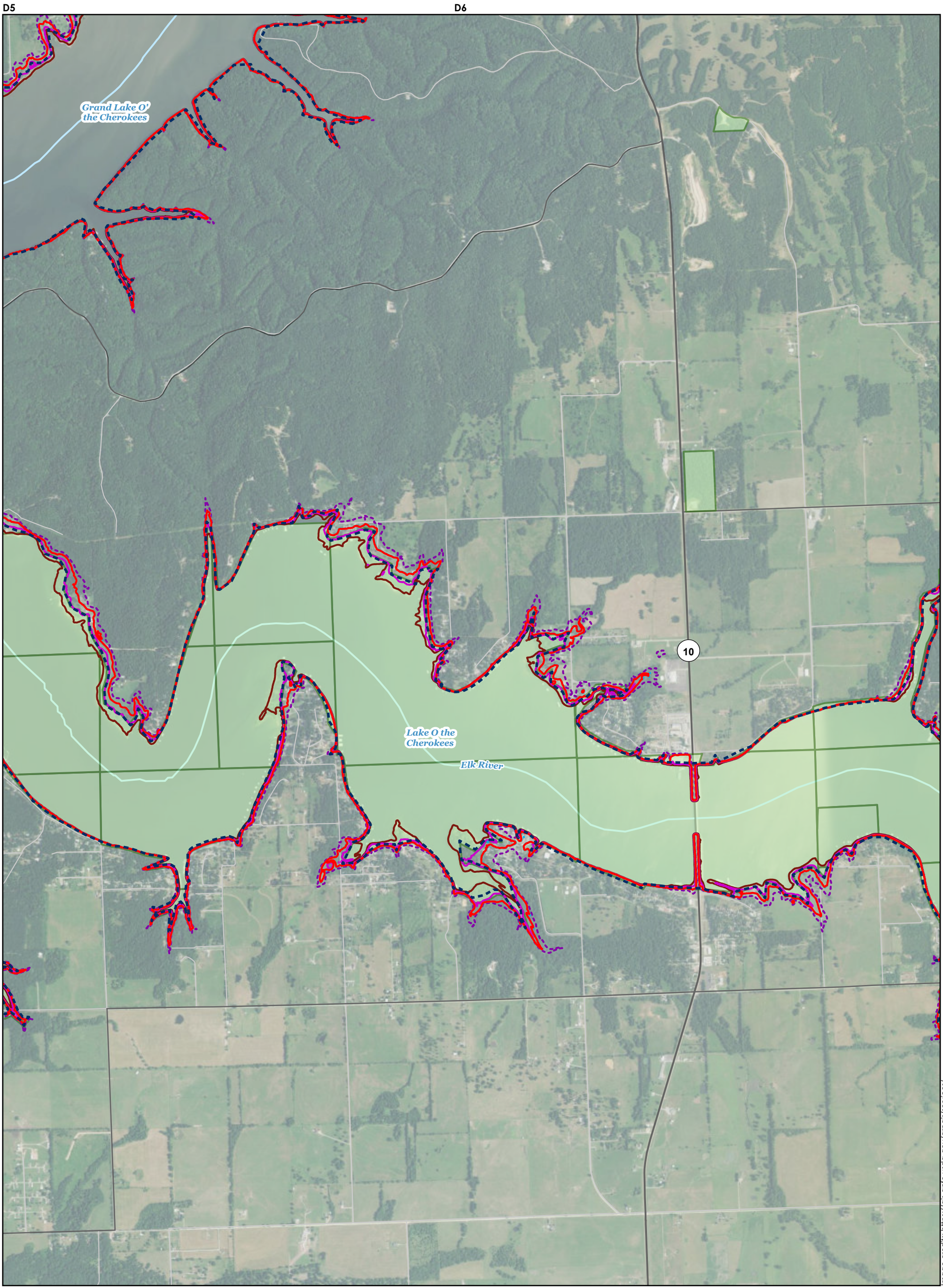
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: E5

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

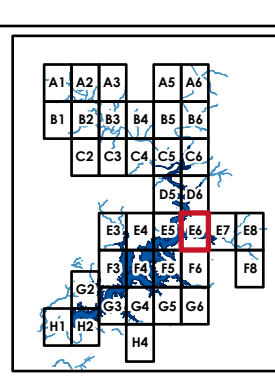
Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021



HISTORICAL INUNDATION SCENARIOS

0 500 1,000 2,000 3,000 4,000 Feet
1 inch = 2,000 feet

NORTH



MAX INUNDATION

- July 2007
- September 1993
- December 2015
- October 2009
- June 2004

Legend

ROAD CLASS

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

- Railroad
- Stream
- Flowage Easements
- Project Boundary
- GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

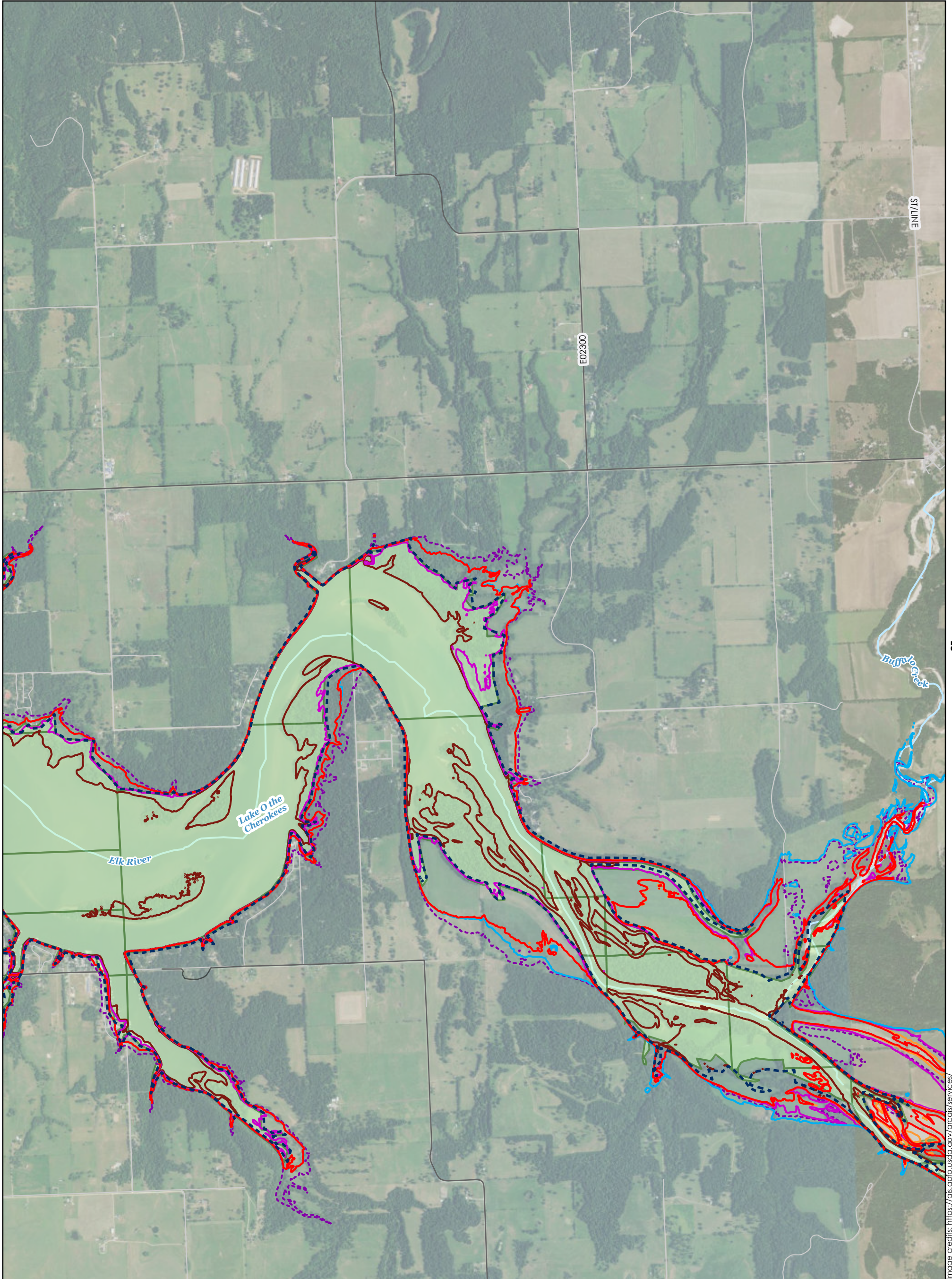
MAP: E6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplb.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

D6



F6

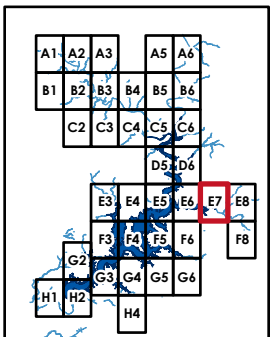
F7

F8

HISTORICAL INUNDATION SCENARIOS



0 500 1,000 2,000 3,000 4,000 Feet
1 inch = 2,000 feet



MAX INUNDATION

- █ July 2007
- █ September 1993
- █ December 2015
- █ October 2009
- █ June 2004

Legend

- | | | |
|---|--|--|
| — Interstate | + Railroad | — Stream |
| — State Highway | - Flowage Easements | - - - Project Boundary |
| — US Highway | █ GRDA Ownership | |
| — Major Collector | | |
| — Local Road | | |

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: E7

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

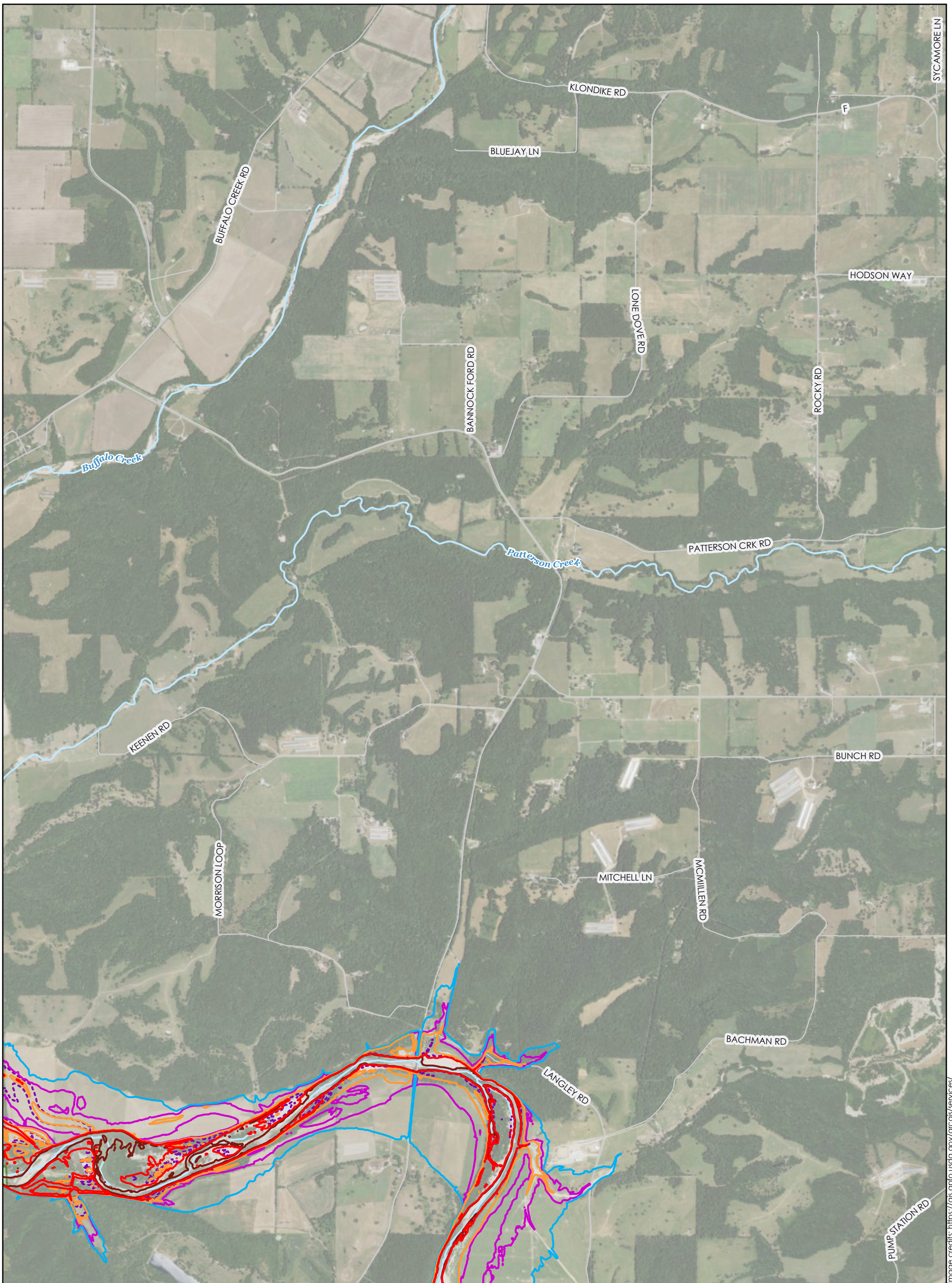
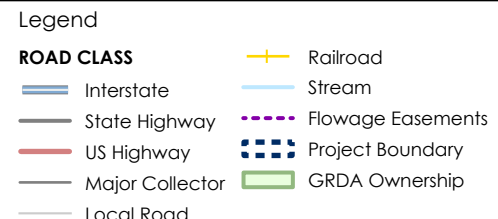
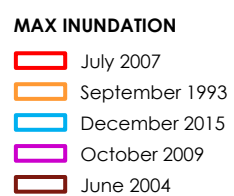
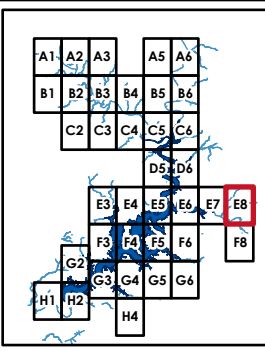
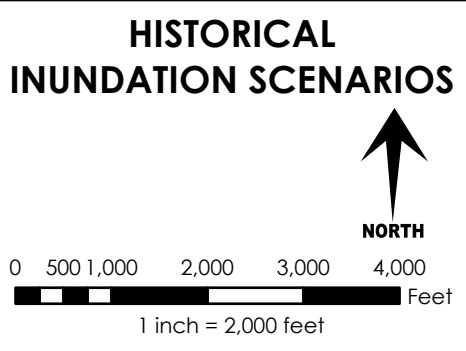


Image credits: https://gis.cplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

F7

F8



MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

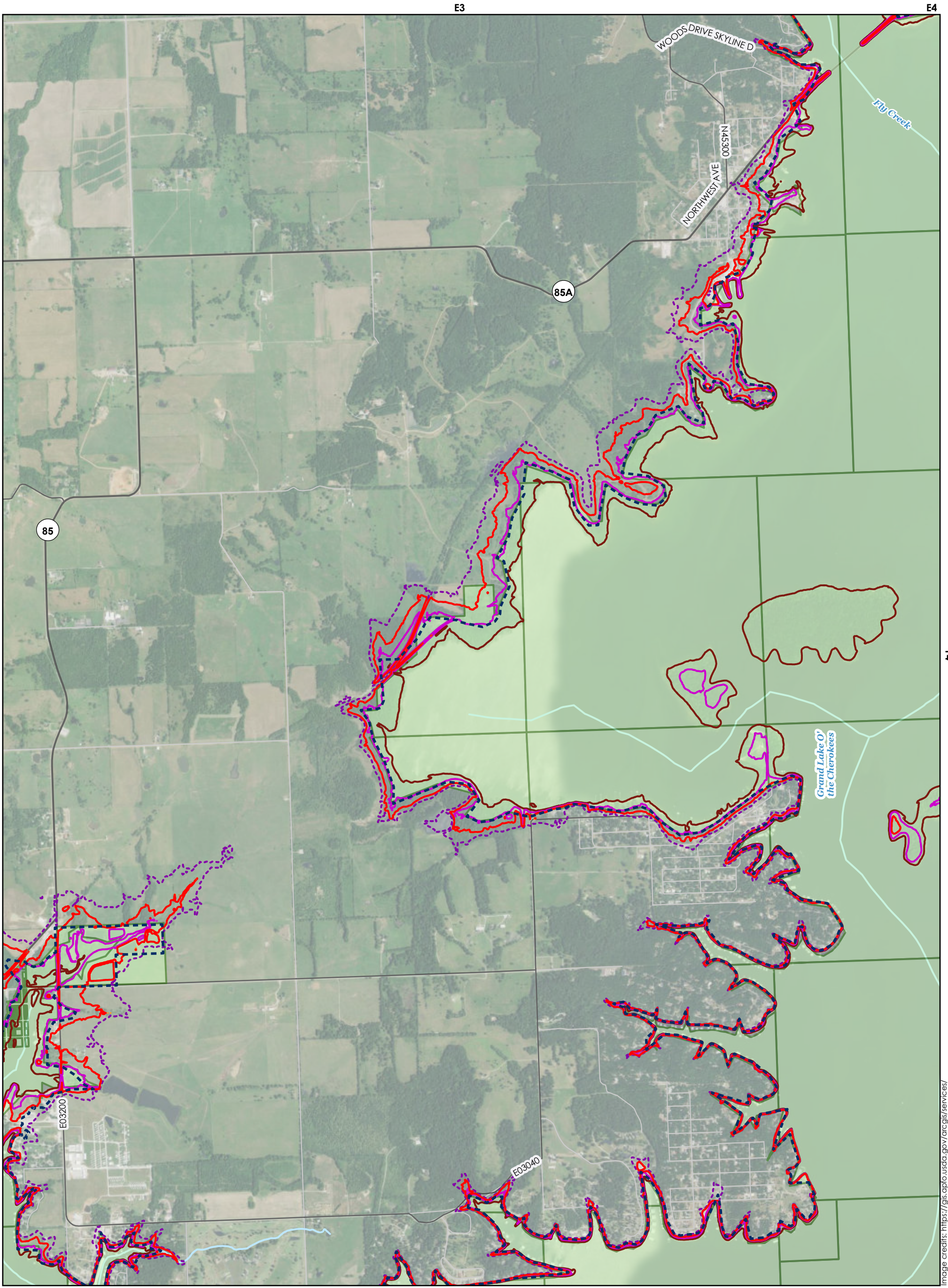
PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

MAP: E8

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

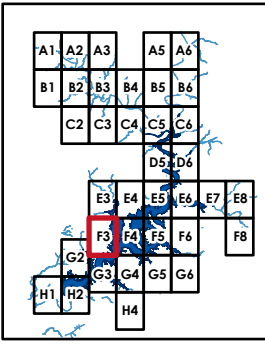
FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS

0 500 1,000 2,000 3,000 4,000 Feet
1 inch = 2,000 feet

NORTH



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- Railroad
 - Stream
 - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

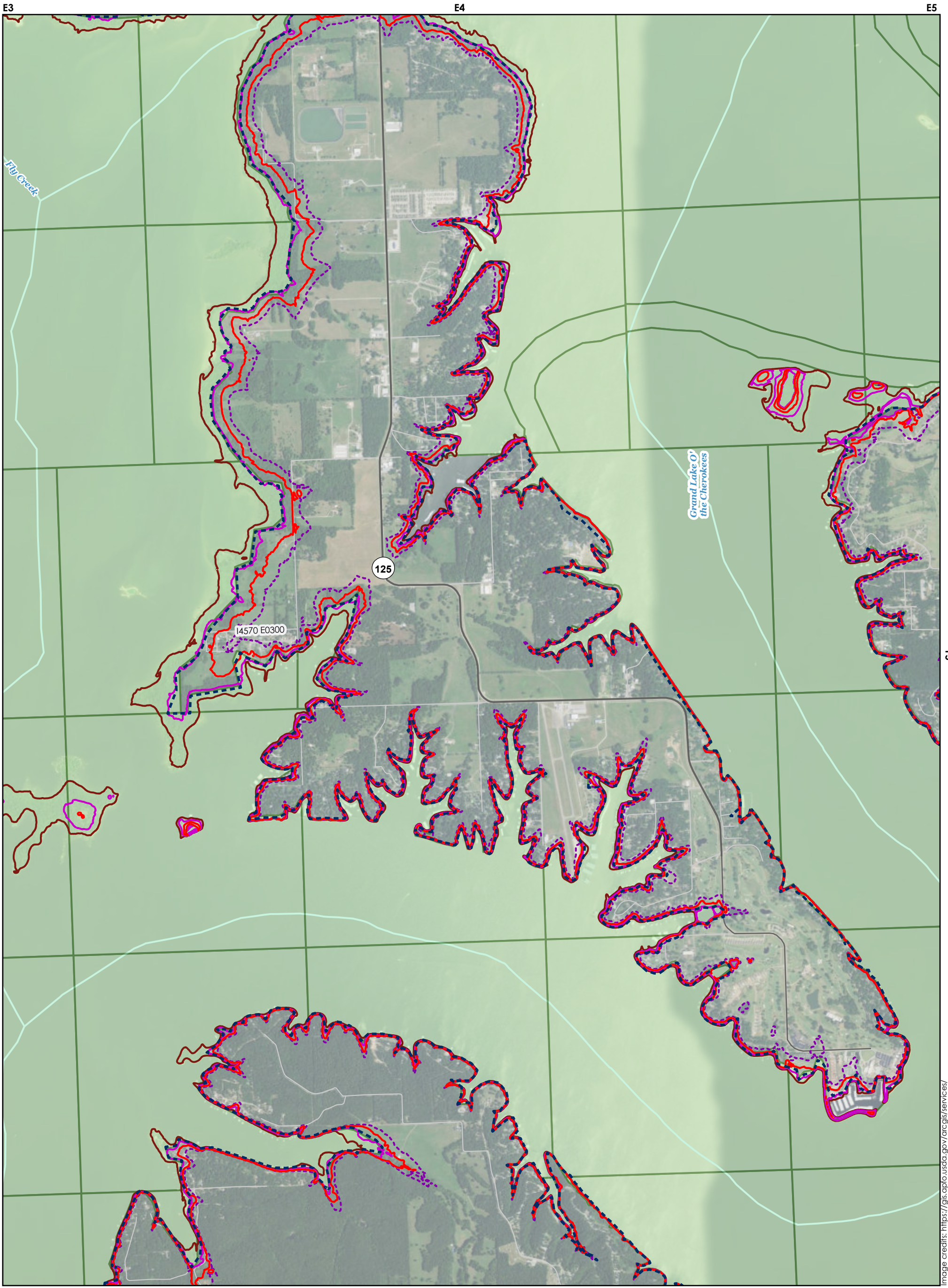
1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: F3

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

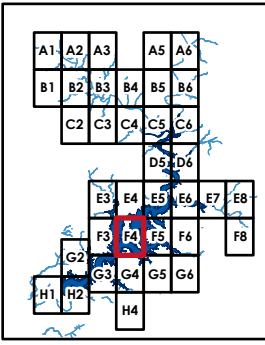
FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS



0 500 1,000 2,000 3,000 4,000 Feet
1 inch = 2,000 feet



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
 - Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

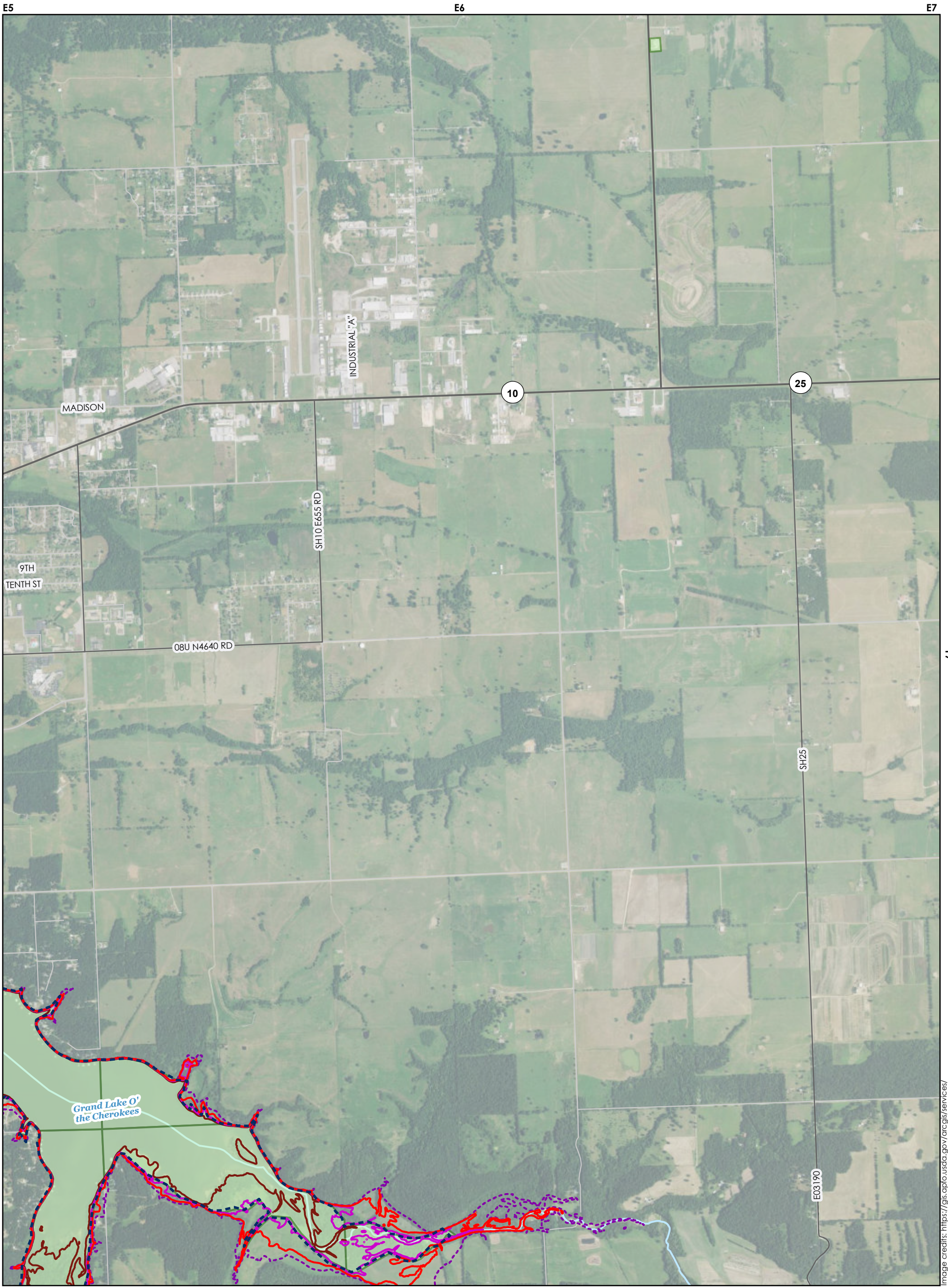
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: F4

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

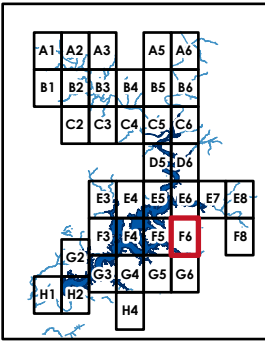


HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- + Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - █ GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

MAP: F6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.cplb.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

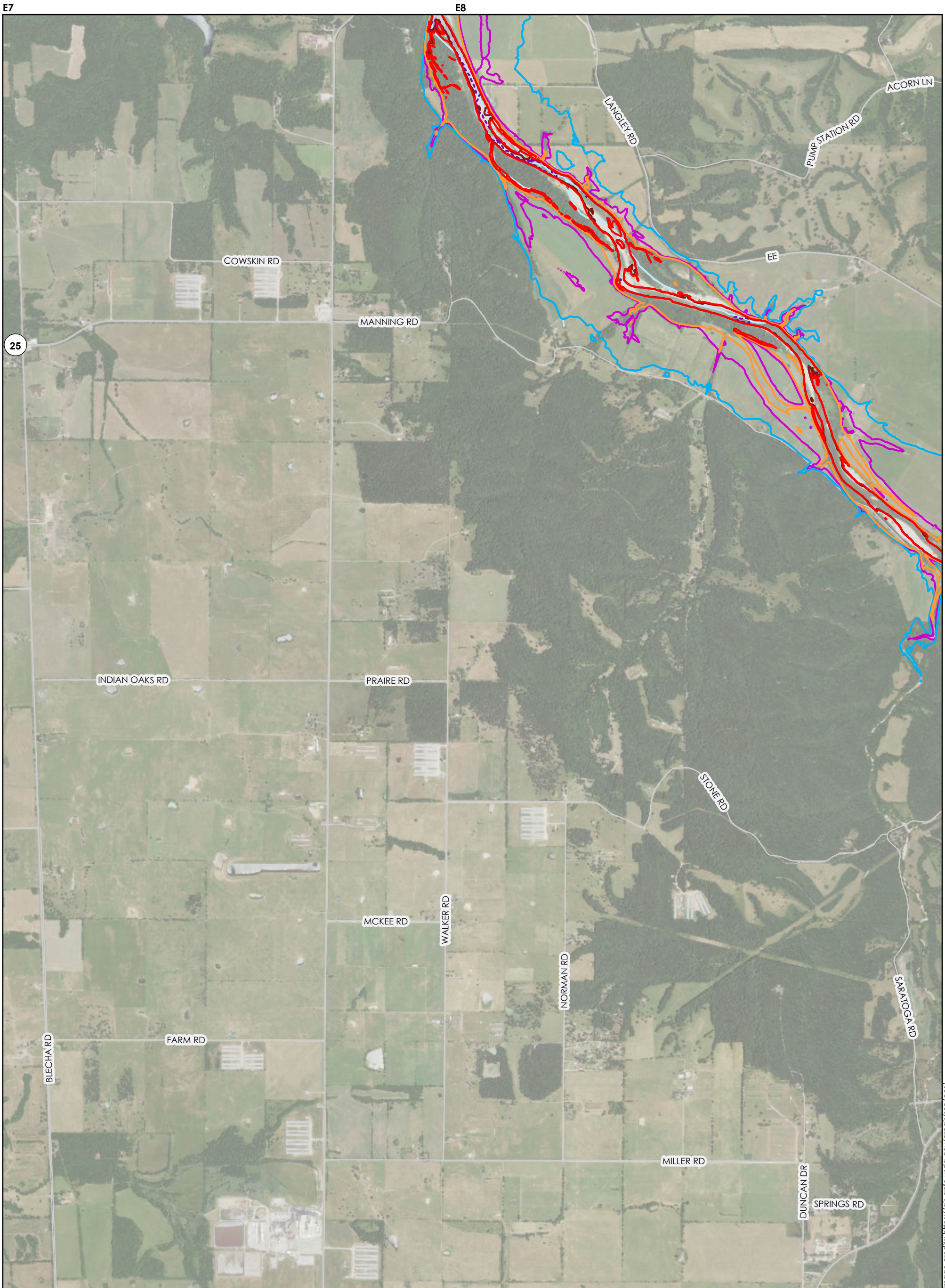


Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet

MAX INUNDATION

- █ July 2007
- █ September 1993
- █ December 2015
- █ October 2009
- █ June 2004

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

Legend

— Interstate	— Railroad
— State Highway	— Stream
— US Highway	- - - Flowage Easements
— Major Collector	 Project Boundary
— Local Road	 GRDA Ownership

PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

MAP: F8

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

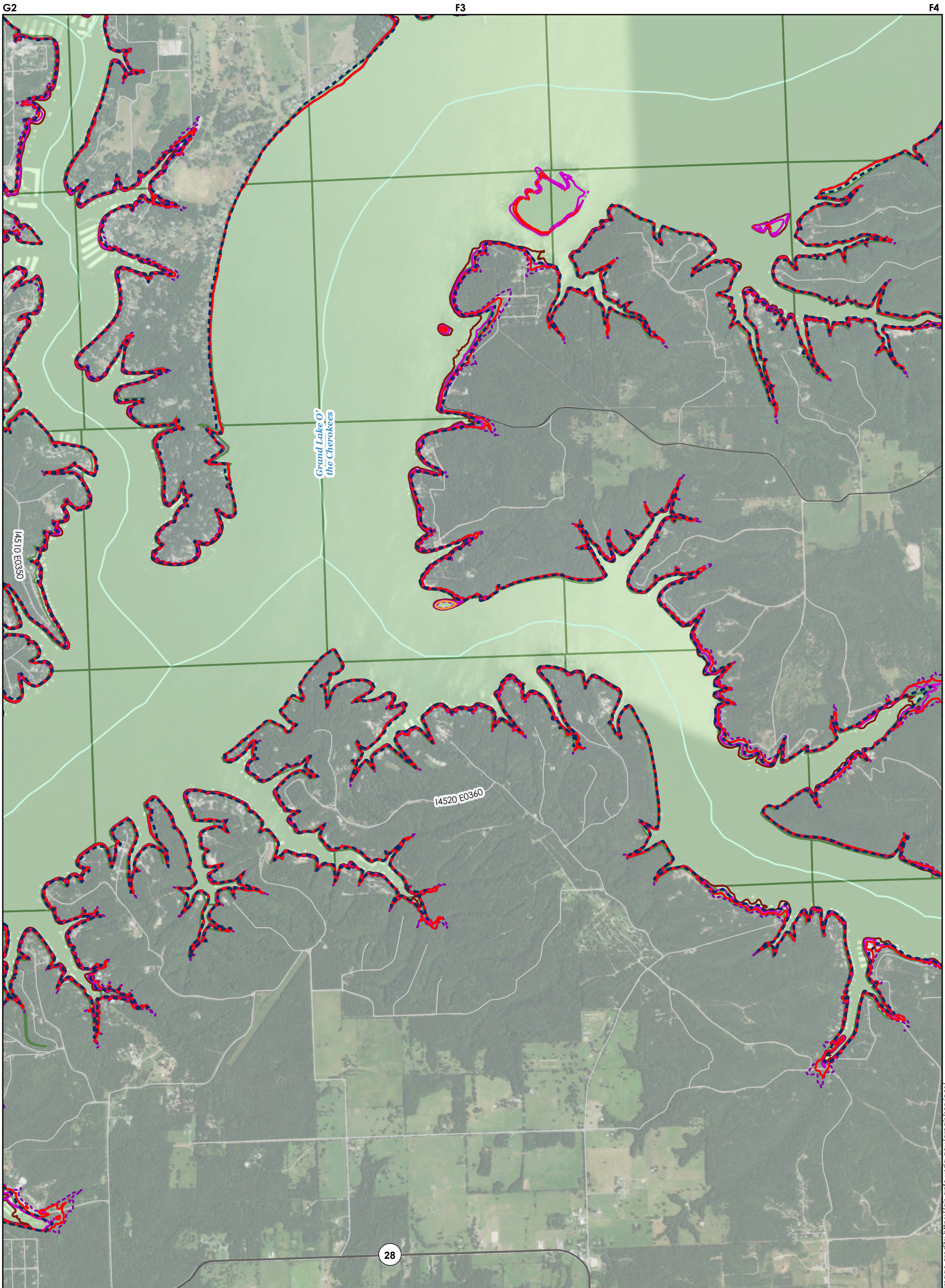


Image credits: https://gis.cplb.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer_2021

HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet

MAX INUNDATION

- July 2007
- September 1993
- December 2015
- October 2009
- June 2004

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

Legend

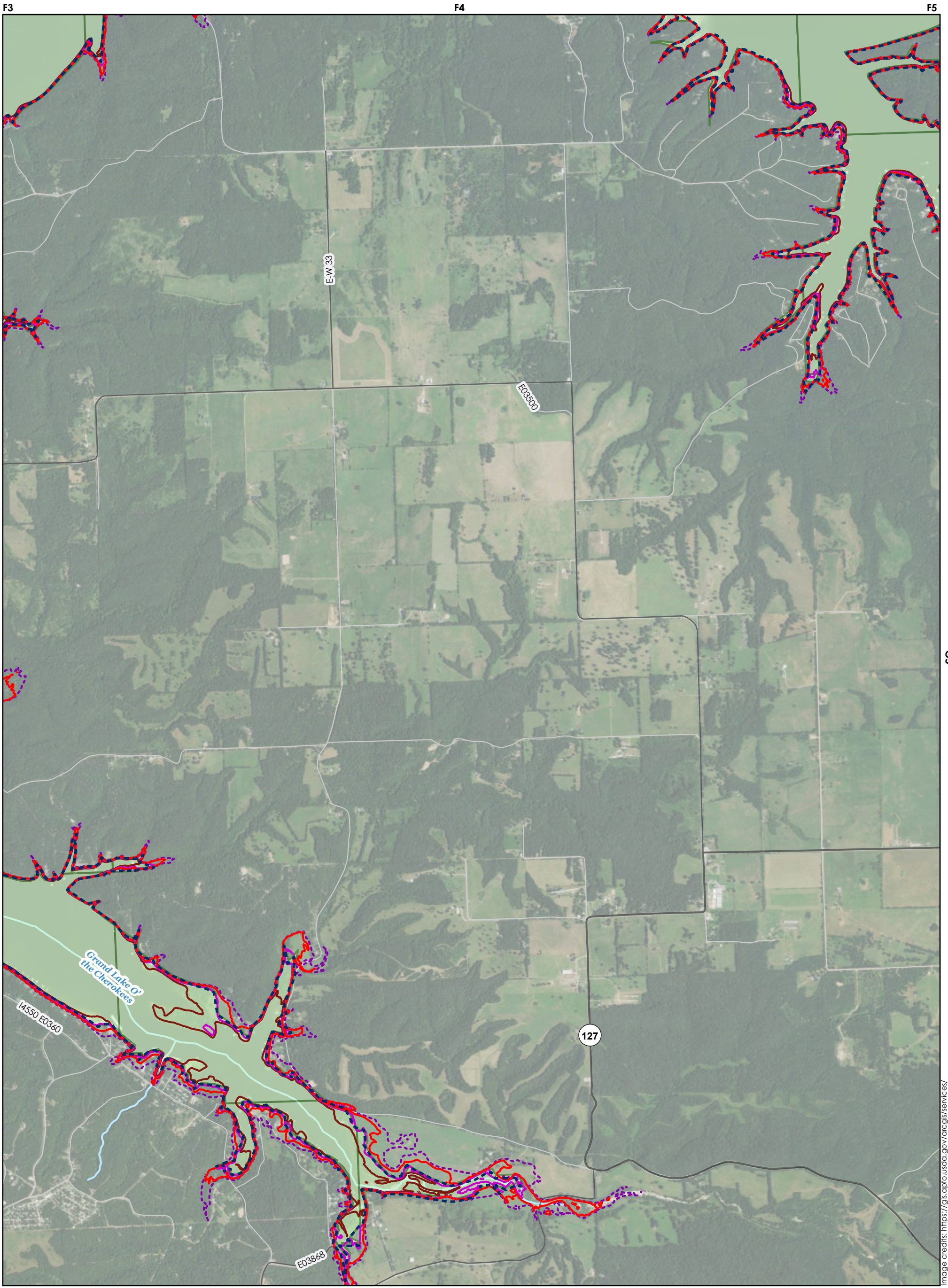
— Interstate	— Railroad
— State Highway	— Stream
— US Highway	- - - Flowage Easements
— Major Collector	- - - Project Boundary
— Local Road	— GRDA Ownership

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

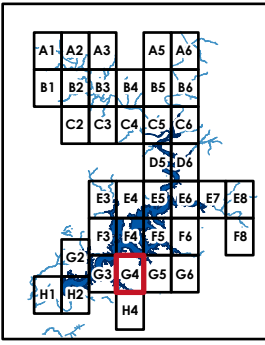
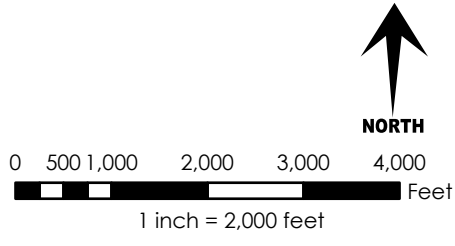
MAP: G3

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

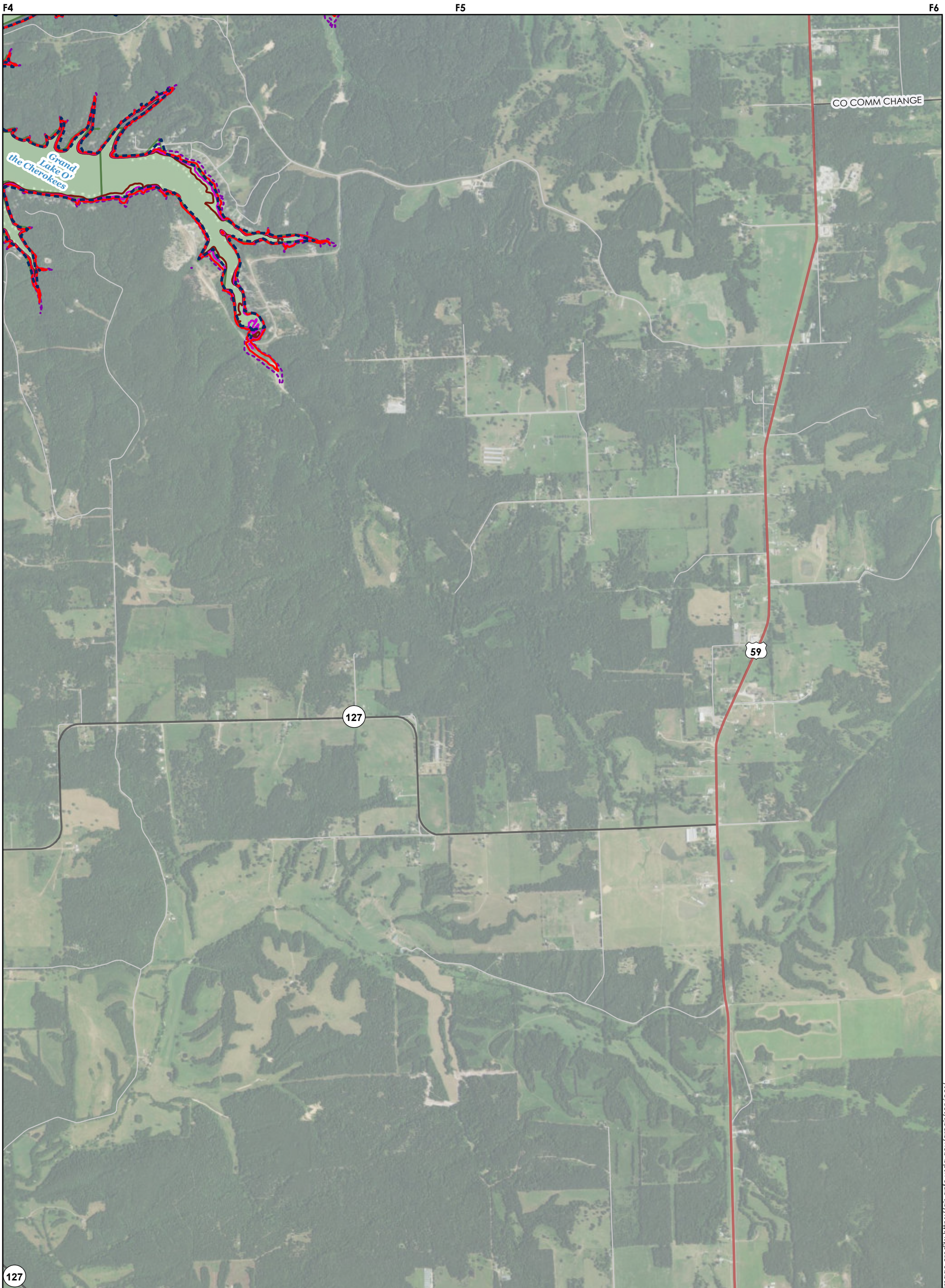
PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: G4

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplp.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021



HISTORICAL INUNDATION SCENARIOS

NORTH

MAX INUNDATION

- July 2007
- September 1993
- December 2015
- October 2009
- June 2004

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

Legend

 Interstate	 US Highway	 Railroad
 State Highway	 Major Collector	 Local Road
 Flowage Easements	 Project Boundary	 GRDA Ownership
 Stream		

PENSACOLA DAM

GRAND RIVER DAM AUTHORITY

MAP: G5

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022

Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

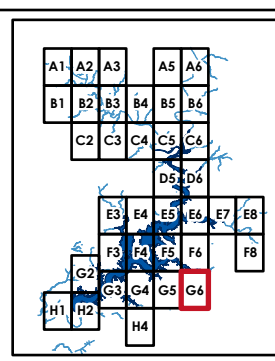


HISTORICAL INUNDATION SCENARIOS

NORTH

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

1 inch = 2,000 feet



- MAX INUNDATION**
- █ July 2007
 - █ September 1993
 - █ December 2015
 - █ October 2009
 - █ June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
- + Railroad
 - Stream
 - - - Flowage Easements
 - - - Project Boundary
 - █ GRDA Ownership

MAP NOTES

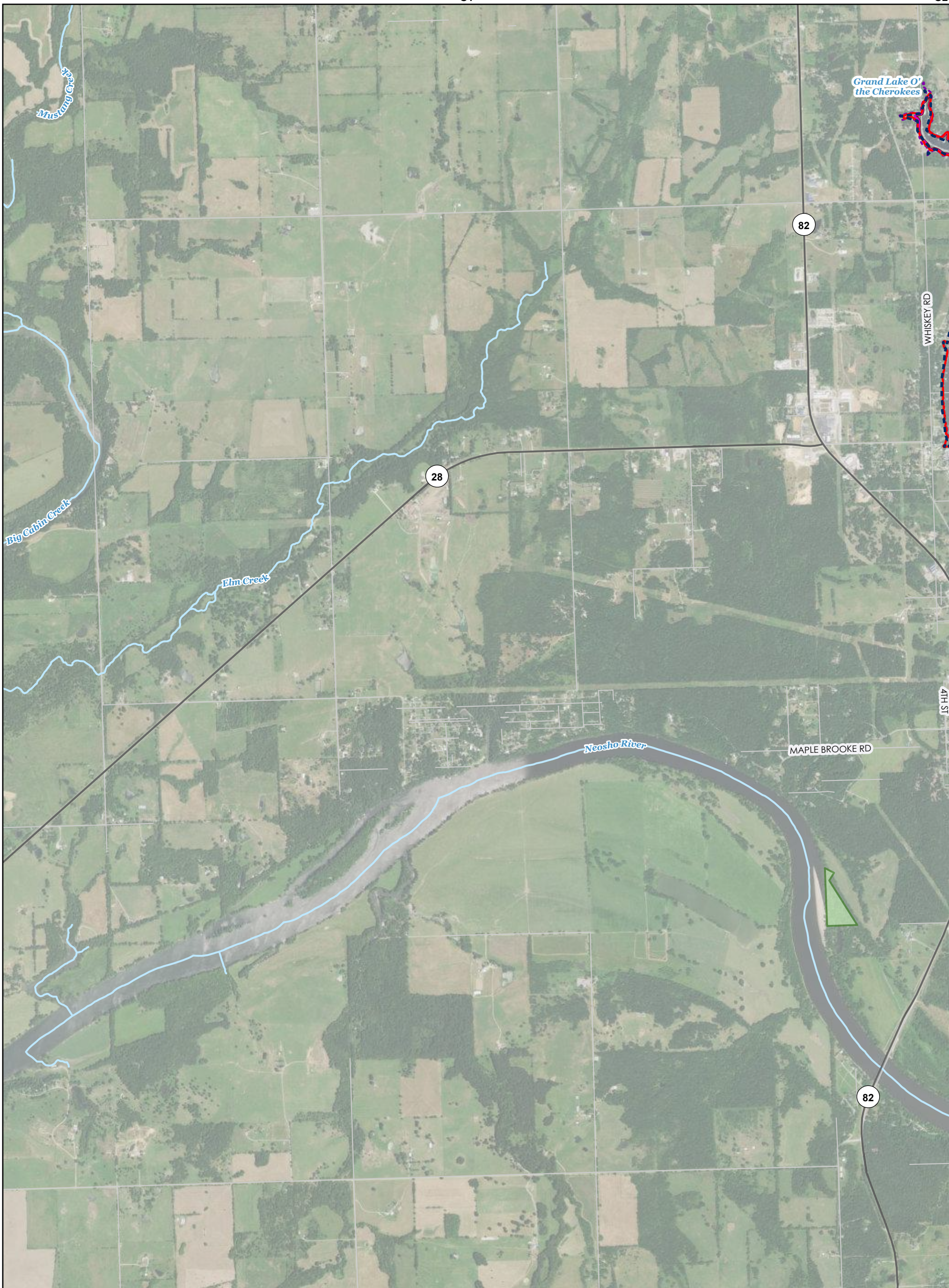
1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

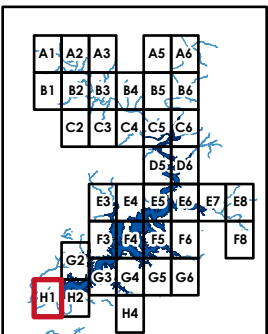
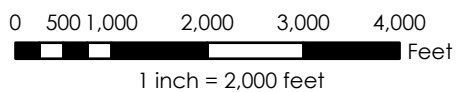
MAP: G6

CRAIG, DELAWARE, MAYES, AND OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS



MAX INUNDATION

- July 2007
- September 1993
- December 2015
- October 2009
- June 2004

Legend

- | | |
|---|--|
| Interstate | Railroad |
| State Highway | Stream |
| US Highway | Flowage Easements |
| Major Collector | Project Boundary |
| Local Road | GRDA Ownership |

MAP NOTES

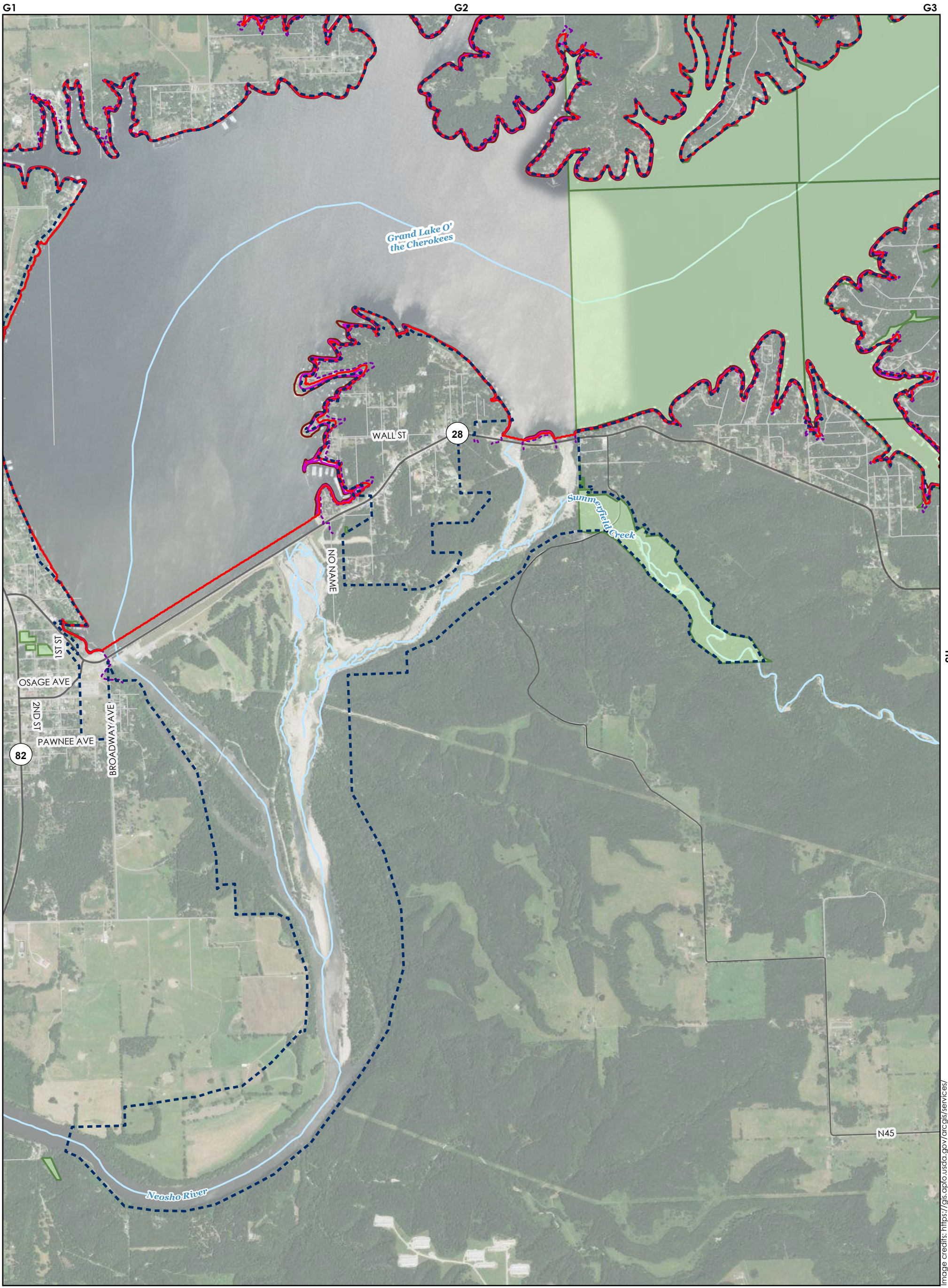
1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

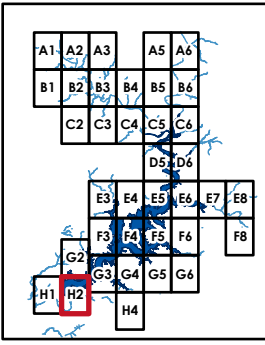
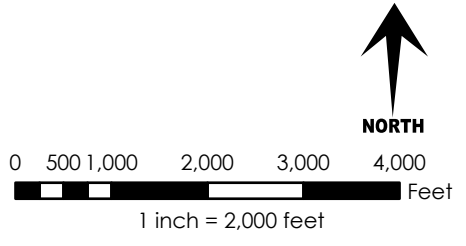
MAP: H1

CRAIG, DELAWARE, MAYES, AND
OTTAWA COUNTIES, OKLAHOMA

FERC No. 1494
September 2022



HISTORICAL INUNDATION SCENARIOS



MAX INUNDATION

█	July 2007
█	September 1993
█	December 2015
█	October 2009
█	June 2004

Legend

ROAD CLASS	
—	Interstate
—	State Highway
—	US Highway
—	Major Collector
—	Local Road
+	Railroad
—	Stream
- - -	Flowage Easements
- - -	Project Boundary
█	GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM GRAND RIVER DAM AUTHORITY

MAP: H2

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

Image credits: https://gis.cplb.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

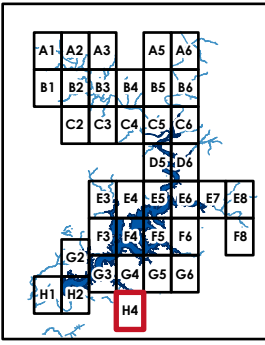


Image credits: https://gis.dplbo.usda.gov/arcgis/services/NAIP/USDA_CONUS_PRIME/ImageServer, 2021

HISTORICAL INUNDATION SCENARIOS



0 500 1,000 2,000 3,000 4,000 Feet
1 inch = 2,000 feet



- MAX INUNDATION**
- July 2007
 - September 1993
 - December 2015
 - October 2009
 - June 2004

- Legend**
- ROAD CLASS**
- Interstate
 - State Highway
 - US Highway
 - Major Collector
 - Local Road
 - Railroad
 - Stream
 - Flowage Easements
 - Project Boundary
 - GRDA Ownership

MAP NOTES

1. Simulations of historical inflow events use historical starting stage at Pensacola Dam. Pensacola Dam stage during the inflow event is calculated by the Operations Model.
2. See Overview Map for notes on data sources.

PENSACOLA DAM
GRAND RIVER DAM AUTHORITY

MAP: H4

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