

Oklahoma Conservation Commission District Services

August 2024 Teams Training

OKMAPS TRAINING
AND
WATERSHED DAM EASEMENT MAPPING UPDATE



Agenda

OKMaps Training

- Overview
- Live Training
- Help Guides
- Contacts

Watershed Dam Easement Mapping Initiative Update

- Overview
- Data Management
- Building the GIS
- Mapping Progress Update
- Future Outlook
- Live Demo/Data Preview

OKMaps Training

Conservation Programs Division

GIS Department

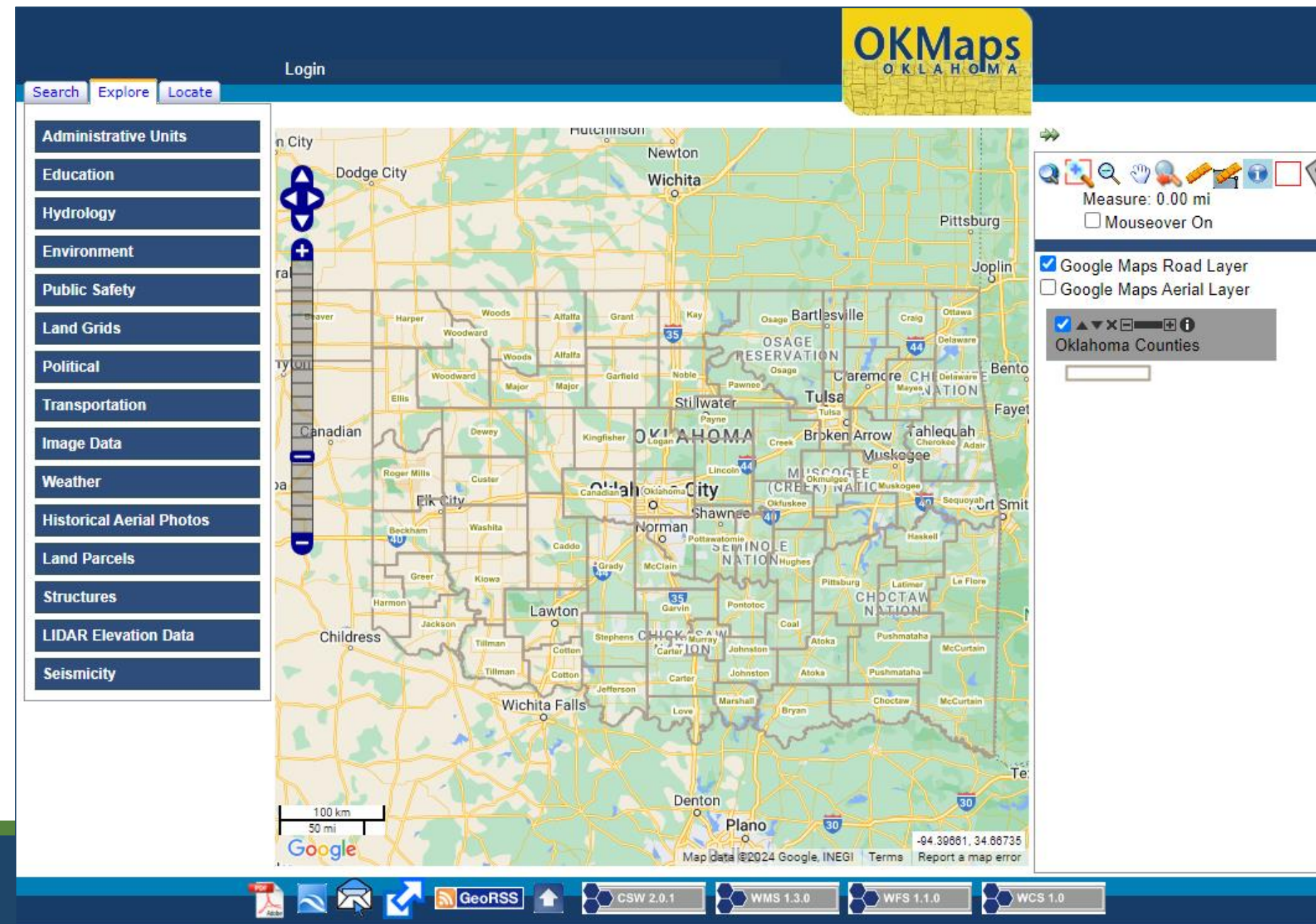
Wendie Sharp and TJ Hathcock

OKMaps Overview

- OKMaps is an interactive data viewer and clearinghouse.
- With OKMaps, users may view geospatial data and metadata related to the state of Oklahoma and download data in a variety of formats for use in client GIS and mapping applications.

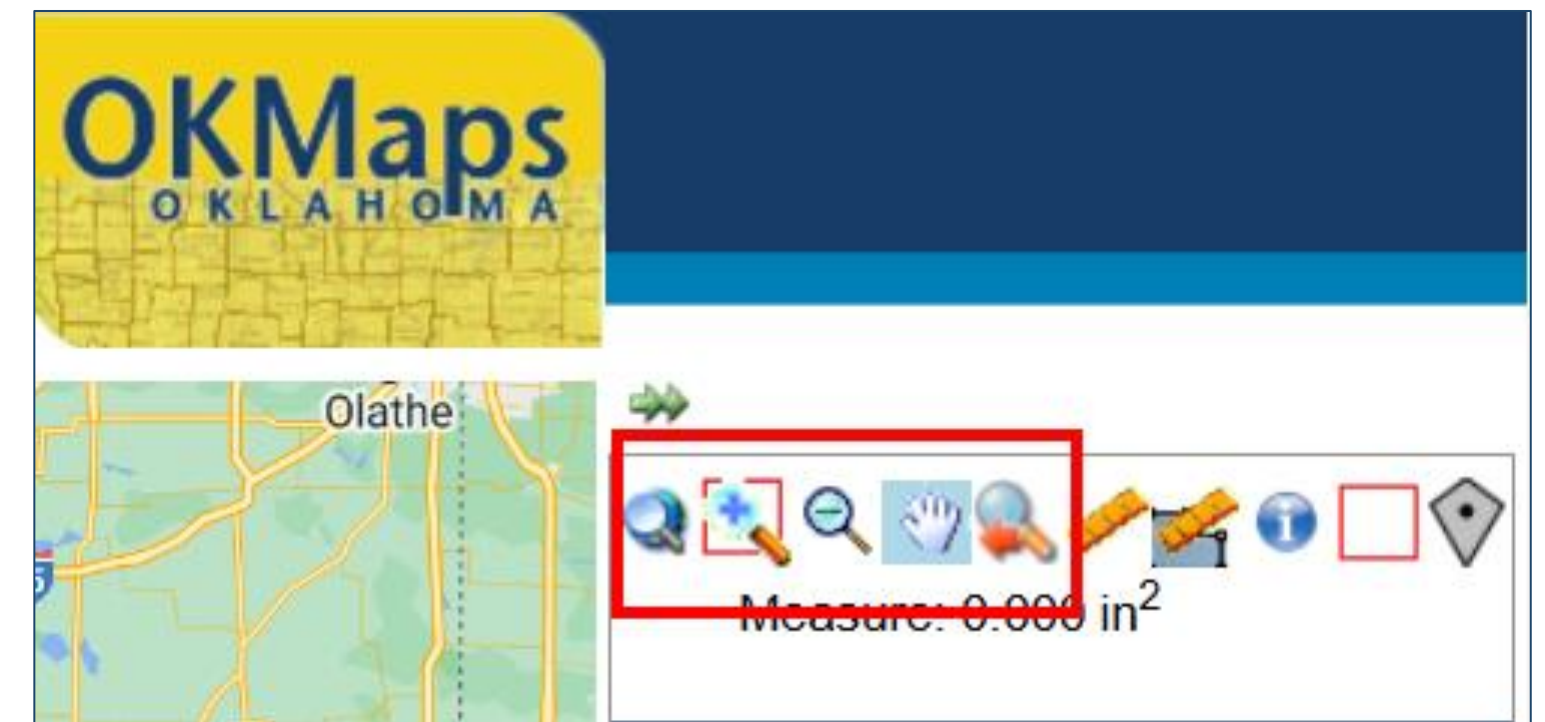
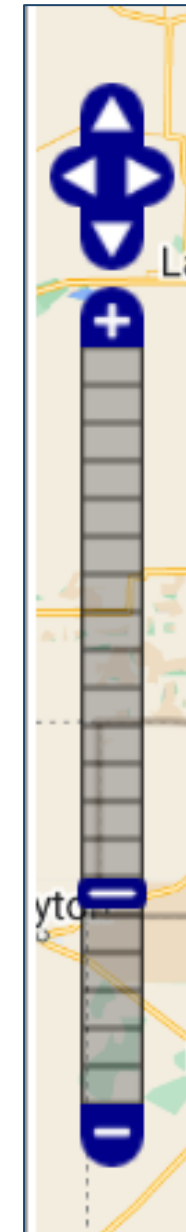
OKMaps Homepage

<https://okmaps.org/OGI/search.aspx>



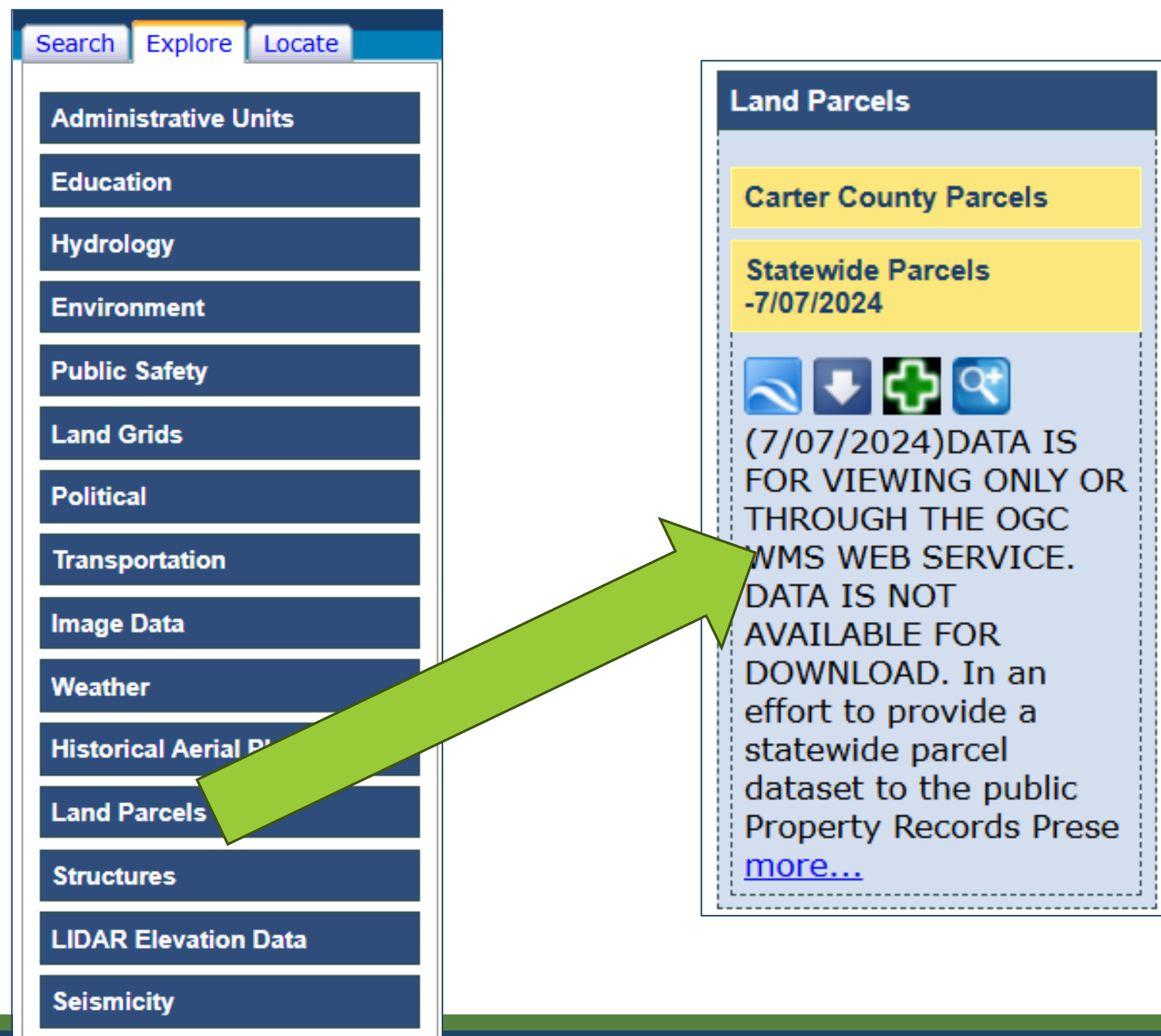
Navigating the Map

- Zoom in/out – via slider bar, mouse or toolbar
- Pan - via slider bar or toolbar
- Previous map view

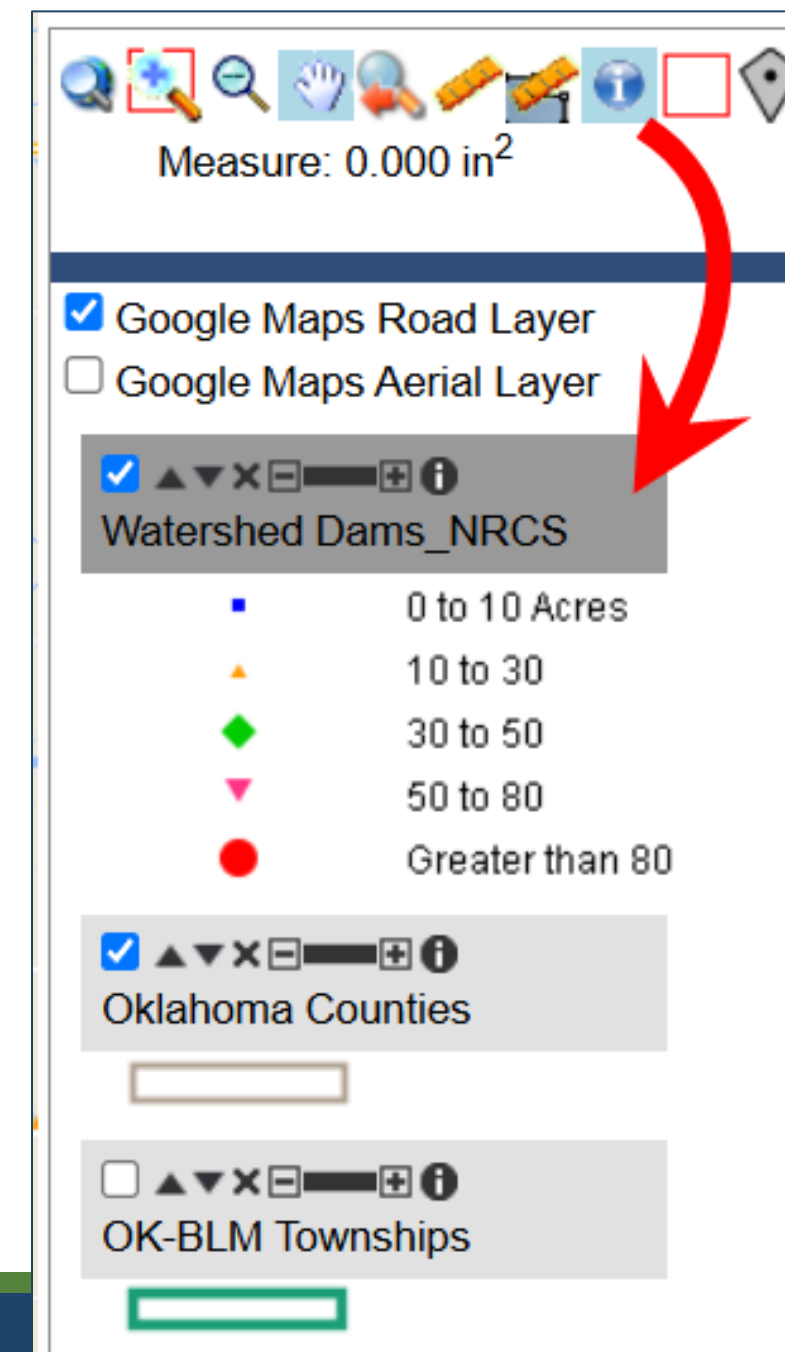


Exploring the Layers

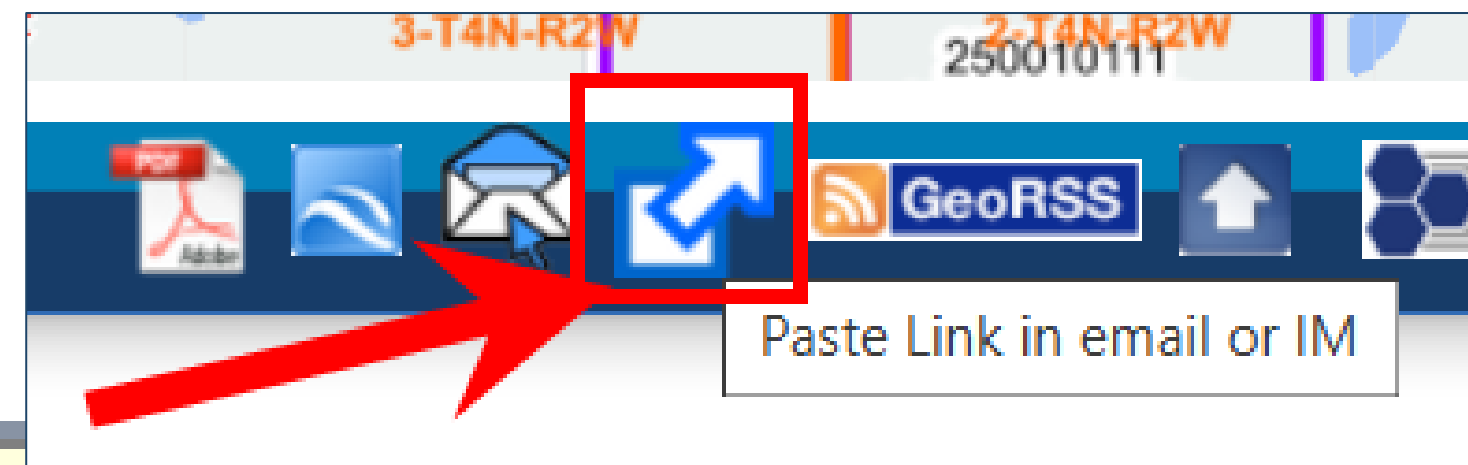
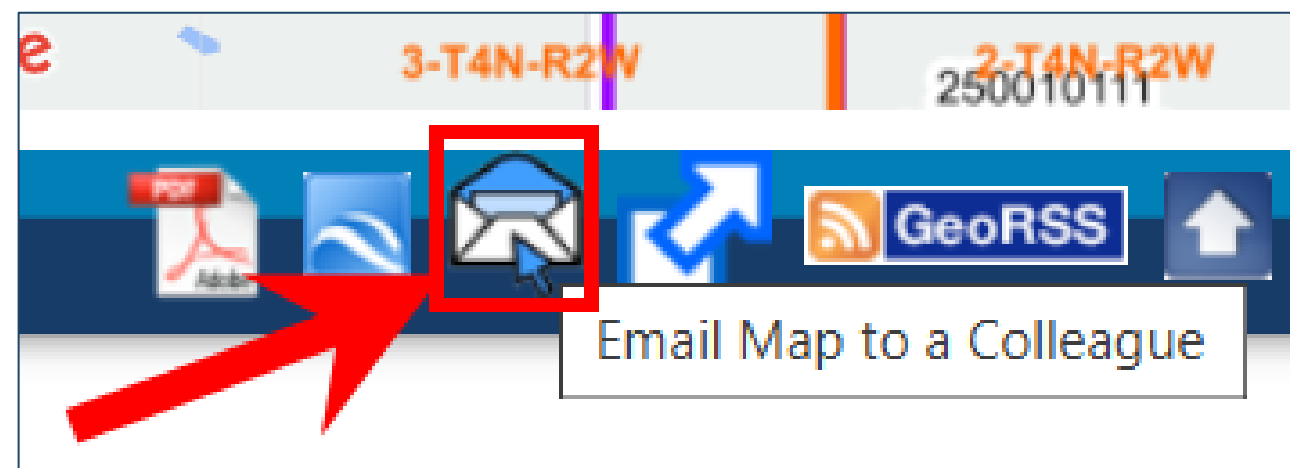
- Thematically organized



- Add layers to your view and identify



Email Map/Bookmark a Map



Copy and paste this link into your IM or Email to send the map:

<http://okmaps.org/OGI/search.aspx?mapcenterlon=-97.380516121675&mapcenterlat=34.86651521774&mapscale=15>



Print

- Can you print maps from OKMaps?

ABSOLUTELY!

- Print to PDF

Print

Print parameters

Title: OKMaps print

1 in = 0.013 mi

Page Size: Portrait

Notes:

☒ Show Legend ☒ Add QR Code

Base Layer: Google Map

Print Resolution: 72 (default)

Compression: JPEG Jpeg Qual.: 80

Layer Settings

Layer Name	Visible	Type	Parameters
NAIP 2021 NC Statewide	<input checked="" type="checkbox"/>	Raster	...
Statewide Parcels -7/07/2024	<input checked="" type="checkbox"/>	Raster	...
OK-BLM QQSections and Lots	<input type="checkbox"/>	Raster	...
OK-BLM Sections	<input type="checkbox"/>	Raster	...
OK-BLM Townships	<input type="checkbox"/>	Raster	...
Watershed Dams_NRCS	<input type="checkbox"/>	Raster	...
Oklahoma Counties	<input checked="" type="checkbox"/>	Raster	...

Print Cancel Help

PDF icon in toolbar

Help Guide

- <https://okmaps.org/OGI/OKMapsHelp.aspx>

Partial funding for construction/maintenance of this website was provided by the Oklahoma Office of Homeland Security. Points of view or opinions expressed on this website are those of the user and do not necessarily reflect those of the Oklahoma Office of Homeland Security.

OKMaps
OKLAHOMA

Search

OKMaps Help

OKMaps is an interactive data viewer and clearinghouse. With OKMaps, users can view data related to the state of Oklahoma and download data in a variety of formats for use in other applications.

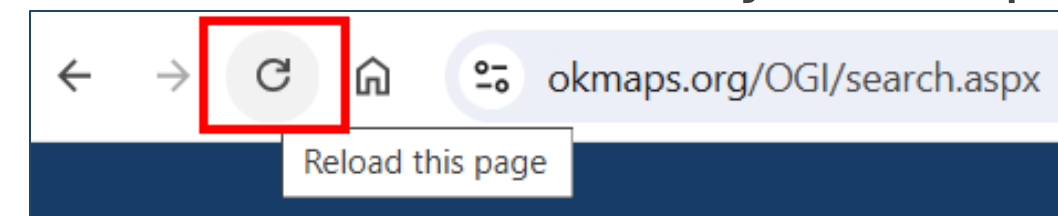
This page is designed to provide a broad-based overview of the functionality of OKMaps. If you have additional questions, please see the [Contact](#) page for information on how to reach us.

Click each topic to expand/collapse.

- ✕ **Navigate the Map**
- ✕ **Explore Layers**
- ✕ **Search Layers**
- ✕ **Add and Remove Layers**
- ✕ **Control Layer Display**
- ✕ **Identify Features**
- ✕ **Zoom to Features**
- ✕ **Measuring Distance and Area**
- ✕ **Finding a Location on the Map**
- ✕ **Zoom to Area**
- ✕ **Show User Location**
- ✕ **Draw Features on Map**
- ✕ **Draw a Selection Box on the Screen**
- ✕ **Download Data**
- ✕ **View Data in Google Earth**
- ✕ **Print Map to PDF**
- ✕ **Email Map/Paste Link**

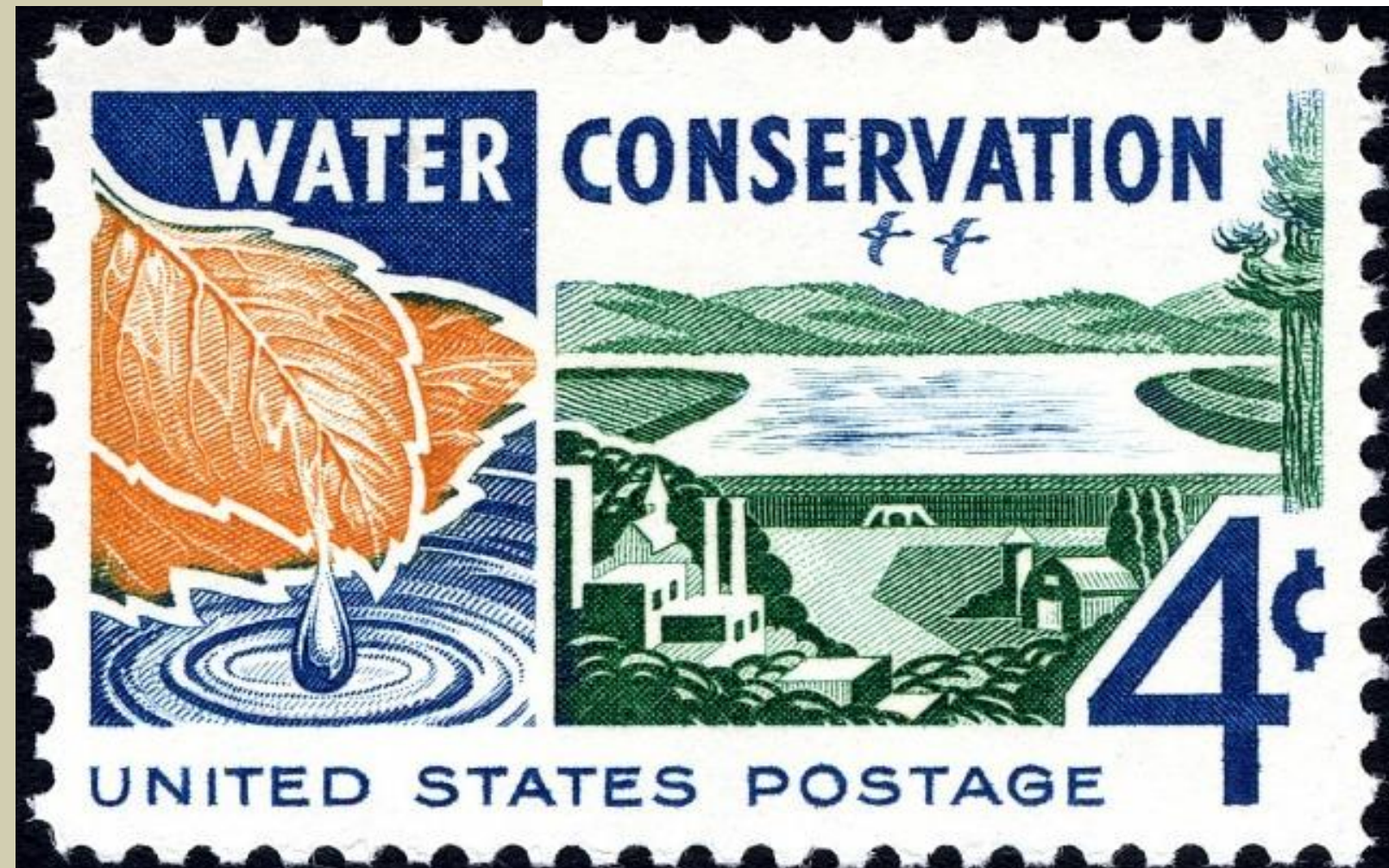
OKMaps Contacts

- <https://okmaps.org/OGI/OKMapsContact.aspx>
- Oklahoma Office of Geographic Information
 - Mike Sharp
 - Shellie Willoughby
- Website/webmap not loading?
 - Wait a few minutes and reload your webpage.
- If you are still having issues after 5 minutes, reach out to the OGI contacts.



Questions about OKMaps?

Watershed Dam Easement Mapping Initiative Update



Conservation Programs Division
GIS Department
Wendie Sharp and TJ Hathcock

Project Overview

Easement

Site #3
Bear-Hybarger

(For Construction and Impoundment Purposes)

For and in consideration of One Dollar (\$1.00) and other good and valuable considerations, the receipt whereof is hereby acknowledged,

Margaret Fallon, Jim Fallon, Tom Fallon and Charles Fallon

Grantor, does hereby grant, bargain, sell, convey and release unto

Garvin Soil and Water Conservation District
STATE OF OKLAHOMA, GARVIN COUNTY, S

Filed for record April 14 1965, at 8 o'clock A.M. and recorded

In Book 667 Page 17 BERNICE DYKEMAN, County Clerk, By [Signature] Deputy
of Garvin County, Oklahoma its successors and assigns Grantee, an easement in, over and upon the follow-

ing described land situated in the County of Garvin, State of Oklahoma, to wit:
East half (E $\frac{1}{2}$) Southeast quarter (SE $\frac{1}{4}$) Northwest quarter (NW $\frac{1}{4}$) and East half (E $\frac{1}{2}$)
Northwest quarter (NW $\frac{1}{4}$) Southwest quarter (SW $\frac{1}{4}$) and Northeast quarter (NE $\frac{1}{4}$) Southwest
quarter (SW $\frac{1}{4}$) of Section 4, Township 4 North, Range 4 West.

for the purpose of:

For or in connection with the construction, operation, maintenance and inspection of the following described works of improvement to be located on the above described land; for the flowage of any waters in, over, upon or through such works of improvement; and for the permanent storage and temporary detention, either or both, of any waters that are impounded, stored or detained by such works of improvement:

Flood retarding structure and appurtenances thereto, as described on plat of structure on file in district office.

1. In the event construction of the above described works of improvement is not commenced within 120 months from the date hereof, the rights and privileges herein granted shall at once revert to and become the property of the Grantor, his heirs and assigns.

2. This easement includes the rights of ingress and egress at any time over and upon the above described land of the Grantor for the purpose of construction, the checking of operations, and the inspection and maintenance of the structure.

3. There is reserved to the Grantor, his heirs and assigns, the rights and privileges to use the above described land at any time, in any manner and for any purpose that does not interfere with construction, operations, maintenance and inspection of the structure.

4. The rights and privileges herein granted are subject to all easement, rights-of-way, mineral reservations or other rights now outstanding in third parties.

5. The Grantee is responsible for operating and maintaining the above described works of improvement.

6. Special provisions: Dirt for construction of dam to be taken first from area north of dam, then from west of dam and last from east of dam. Grantors herein reserve all water rights herein and the right to manipulate the drawdown valve, except for maintenance purposes, as regards the above described property. Timber is to be removed from permanent water area. Drawdown to contain additional openings to minimize water retention.

TO HAVE AND TO HOLD the aforesaid easement in, over and upon the above described land of the Grantor with all the rights, privileges and appurtenances thereto belonging or in anywise appertaining, unto the Grantee, its successors and assigns for so long as they should use said easement for the purpose described above.

IN WITNESS WHEREOF the Grantor has executed this instrument on the 21st day of January, 1965

Tom Fallon,
Signature of Grantor

Margaret Fallon (SEAL)
Signature of Grantor

Jim Fallon
Signature of Grantor

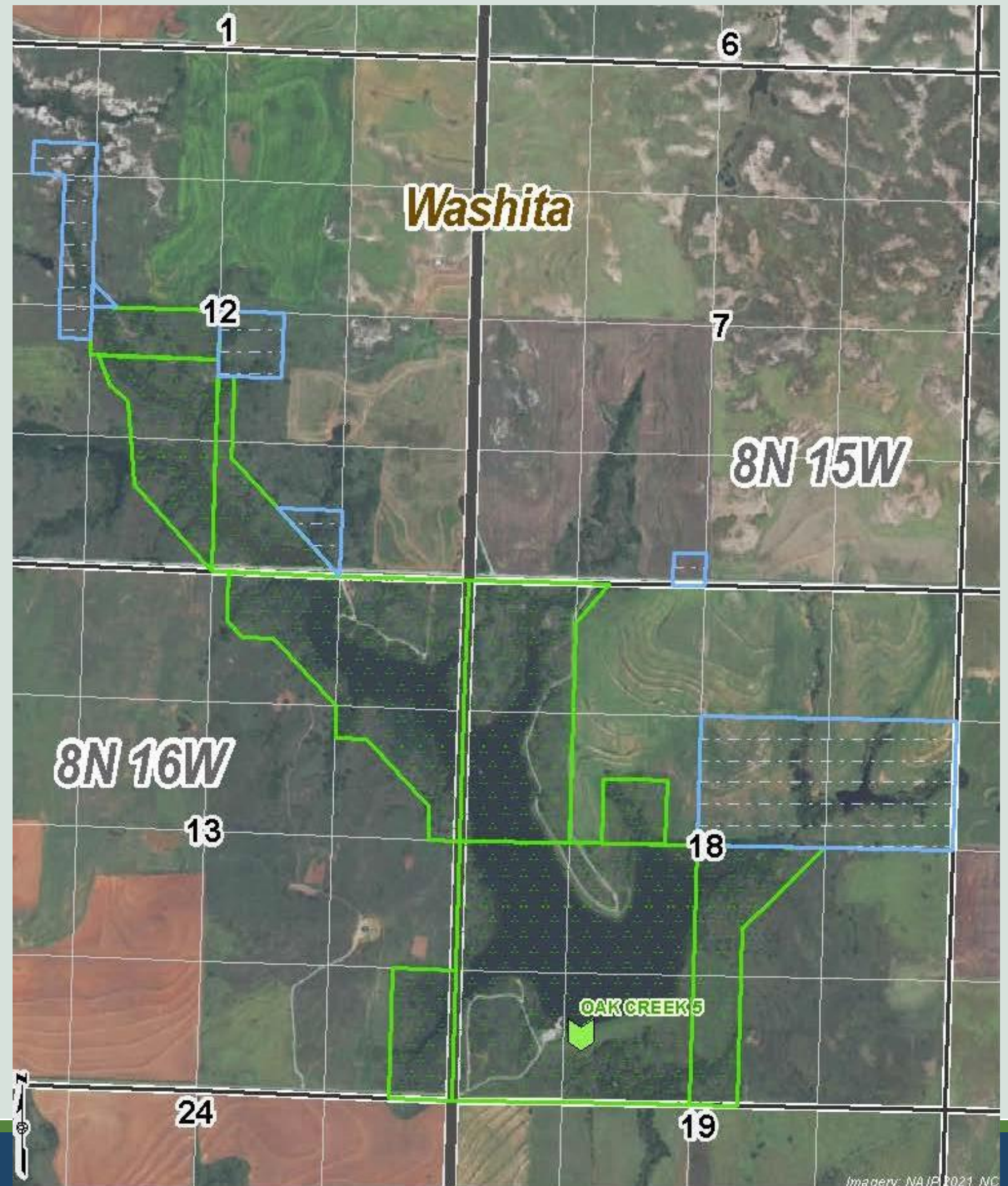
Charles Fallon (SEAL)
Signature of Grantor

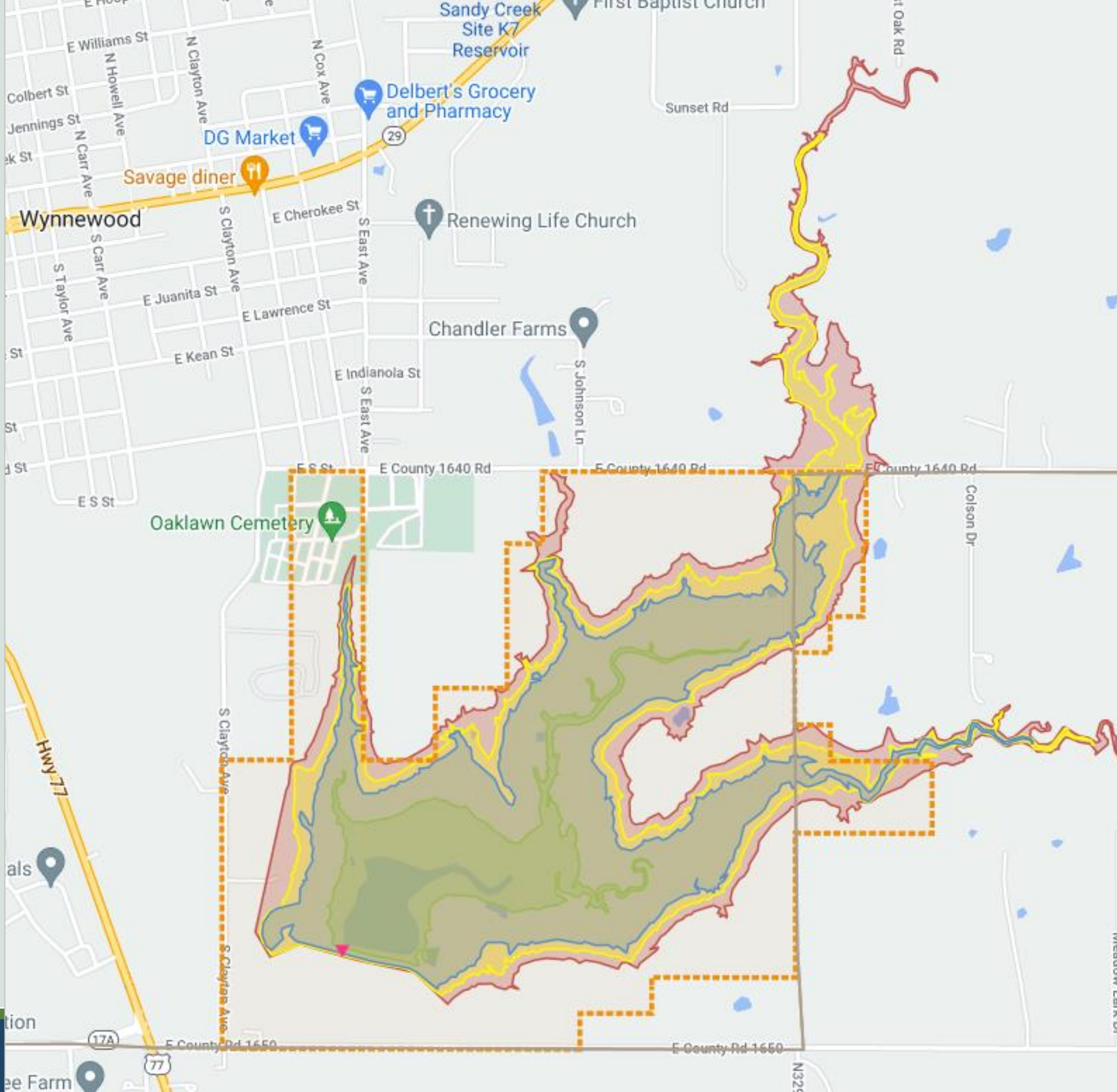
BOOK 667 PAGE 18

ACKNOWLEDGMENT

STATE OF OKLAHOMA }
COUNTY OF Caddo } SS.

Before me, the undersigned, a Notary Public in and for said County and State, on this 21st day of January, 1965, personally appeared Tom Fallon,





☒ Google Maps Road Layer
☐ Google Maps Aerial Layer

☒ Oklahoma Counties

☒ Watershed Dams_NRCS

	0 to 10 Acres
	10 to 30
	30 to 50
	50 to 80
	Greater than 80

☒ Current Watershed Dam Easements

☒ NRCS Dams-Principal Spillway Elevation

☒ NRCS Dams-Emergency Spillway Elevation

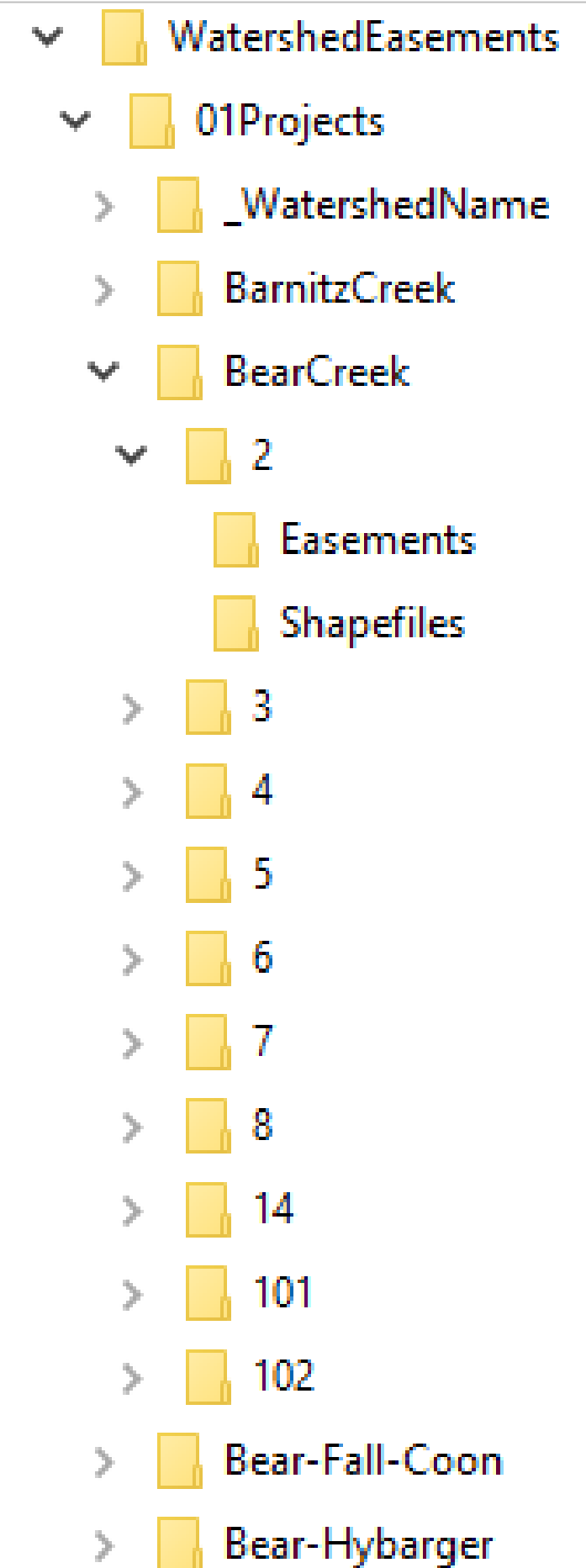
☒ NRCS Dams-Effective Top of Dam Elevation

☒ NRCS Dams-Effective Top of Dam Elevation Plus 5 Feet

Data Management

- Develop a folder structure
- Review file names
- Determine key attributes to capture from easements
 - Easement Type
 - Legal Description & County
 - Key Dates
 - Special Provisions
 - Ingress/Egress

- Standardized keys:
 - Federal ID
 - National ID
 - Dam Name



Building the GIS

- Create spatial layers
 - Easements
 - Access Areas
- Map legal descriptions
 - PLSS Quarter calls
 - Metes and bounds
- TractBuilder

TractBuilder - Quartering Tool

Description Corner Posts Attributes Settings About

NW4	N2	NE4	And	NW2	NE2
W2	All	E2	Less	SW2	SE2
SW4	S2	SE4			

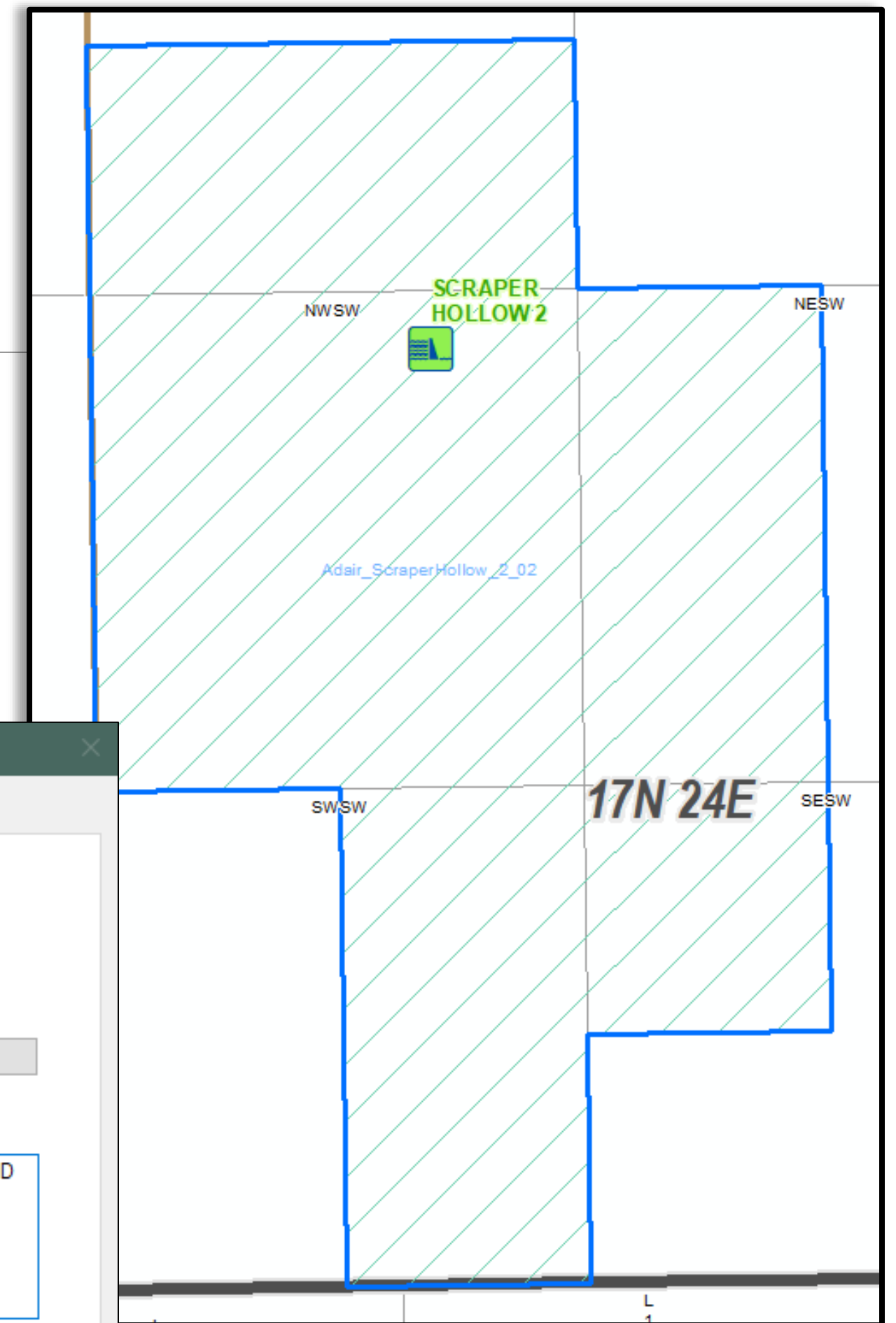
N Acres Add

Description: S2 SW4 NW4 AND NW4 SW4 AND E2 SW4 SW4 AND NW4 SE4 SW4 AND W2 NE4 SW4

Selected Area: 637.57 ac.

Resulting Area: 109.61 ac.

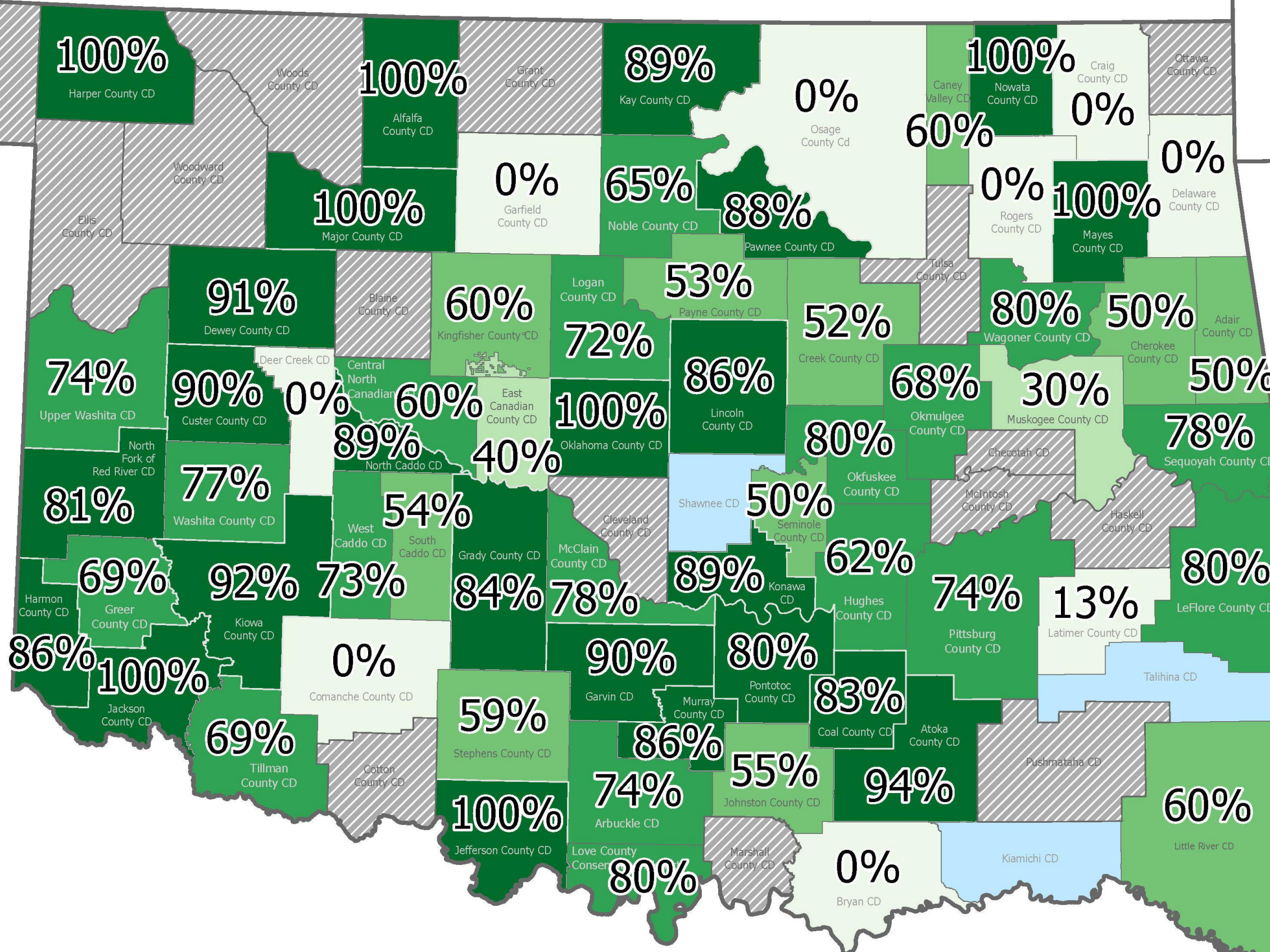
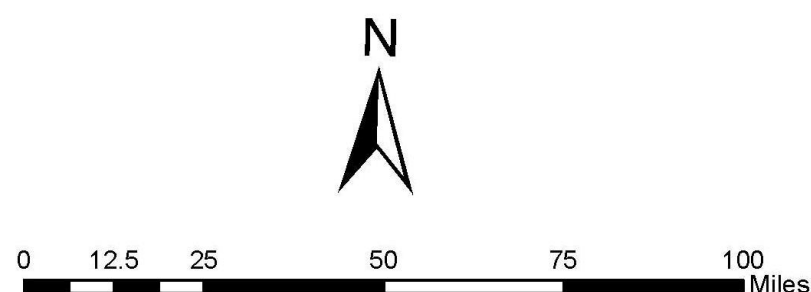
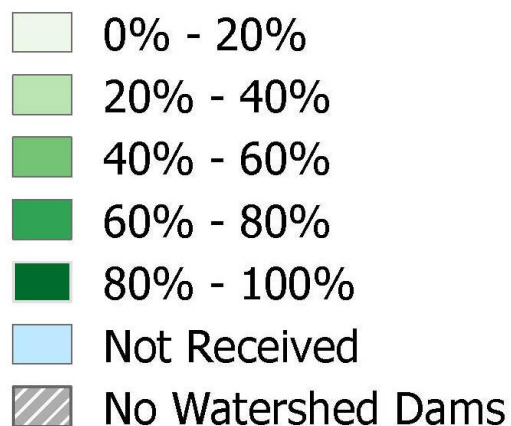
Zoom Selection Create Feature



Mapping Progress

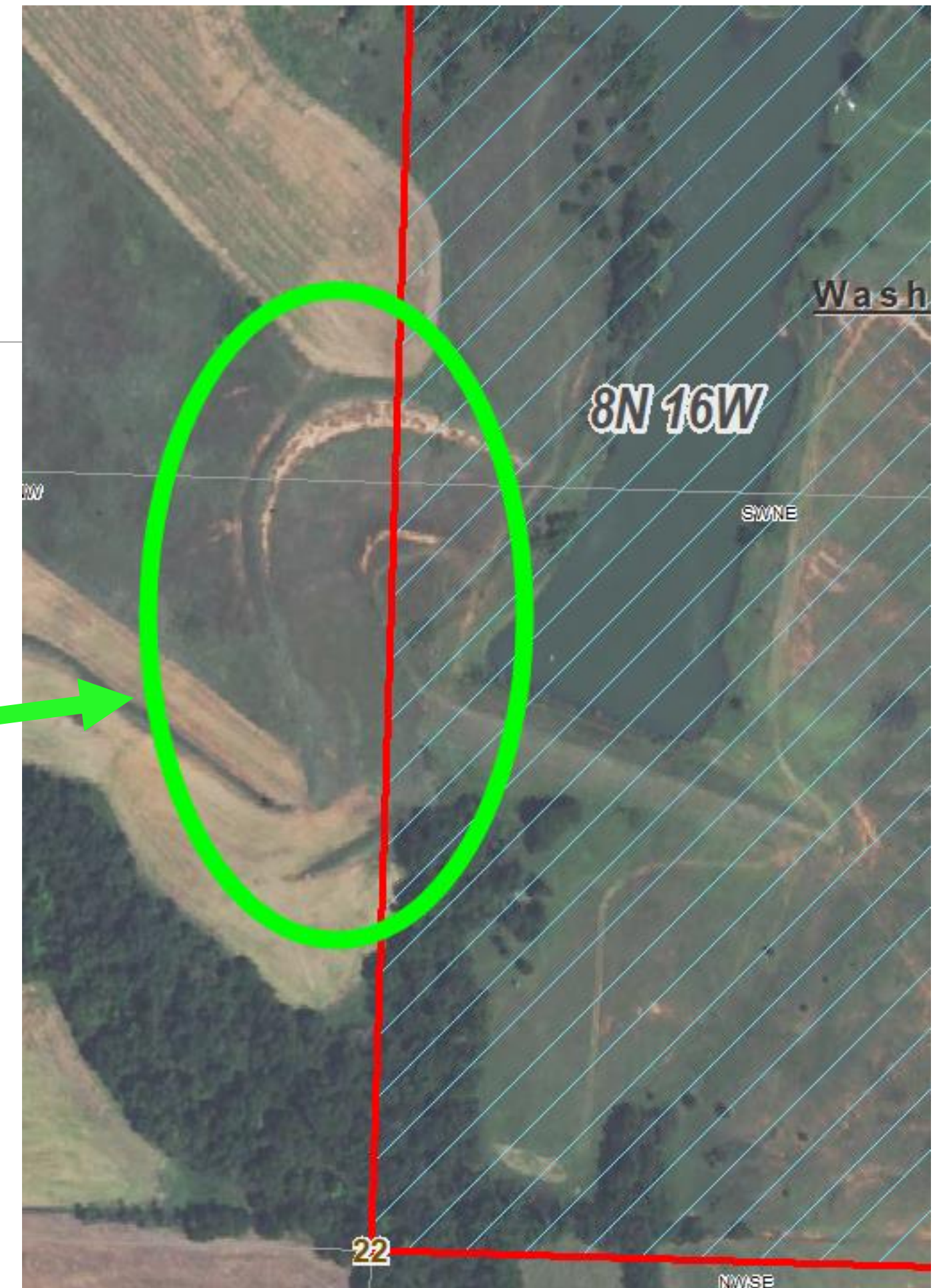
Easement Mapping Progress by Conservation District

Percent of Dams Complete



Site Tracking Spreadsheets

- Capturing additional information for the team
 - Questions
 - Issues
 - Missing easements
 - Notes
 - Status dates



Future Outlook

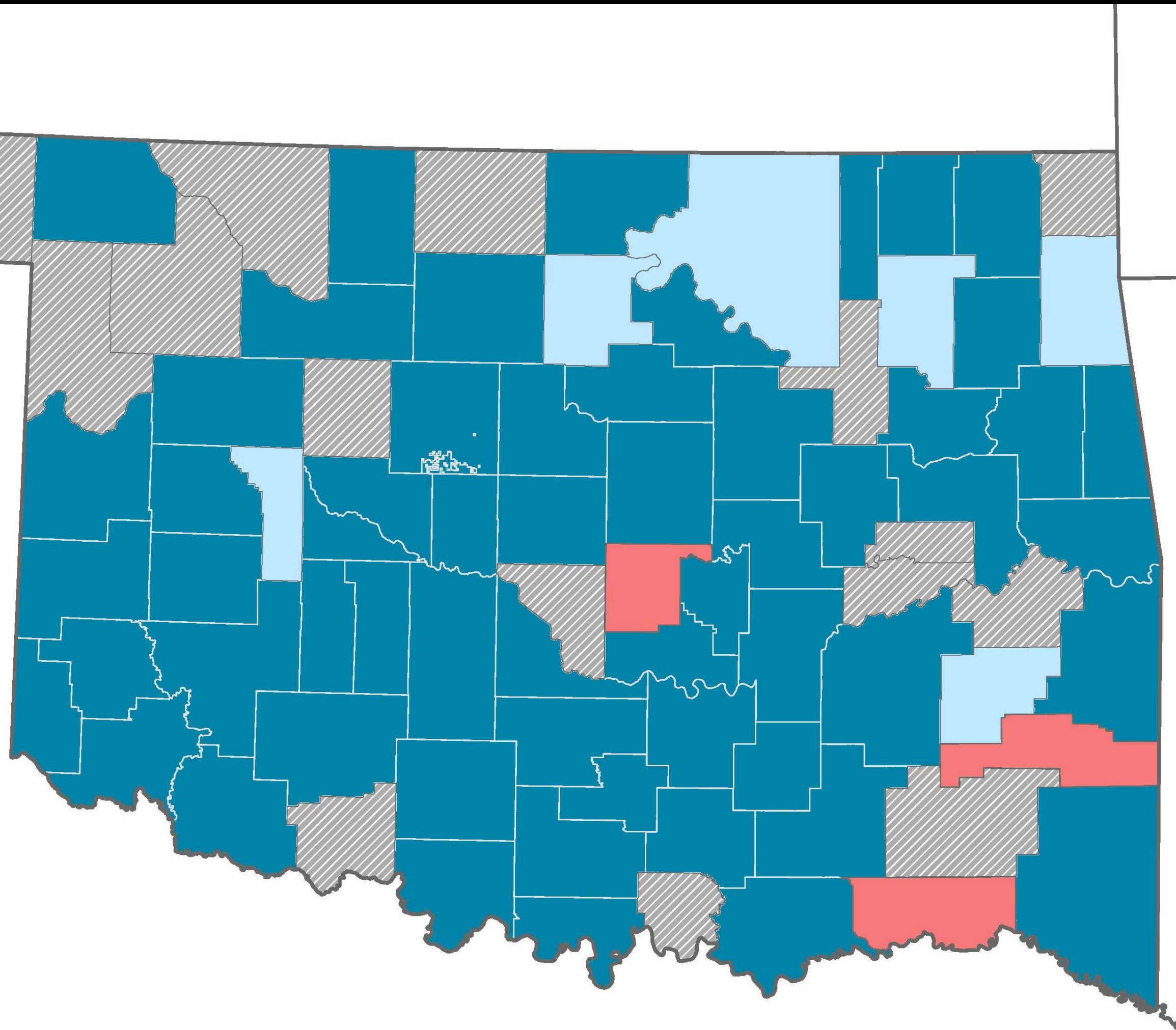
Easement Collection Progress by Conservation District

Status

- Received
- Incomplete
- Not Received
- No Watershed Dams



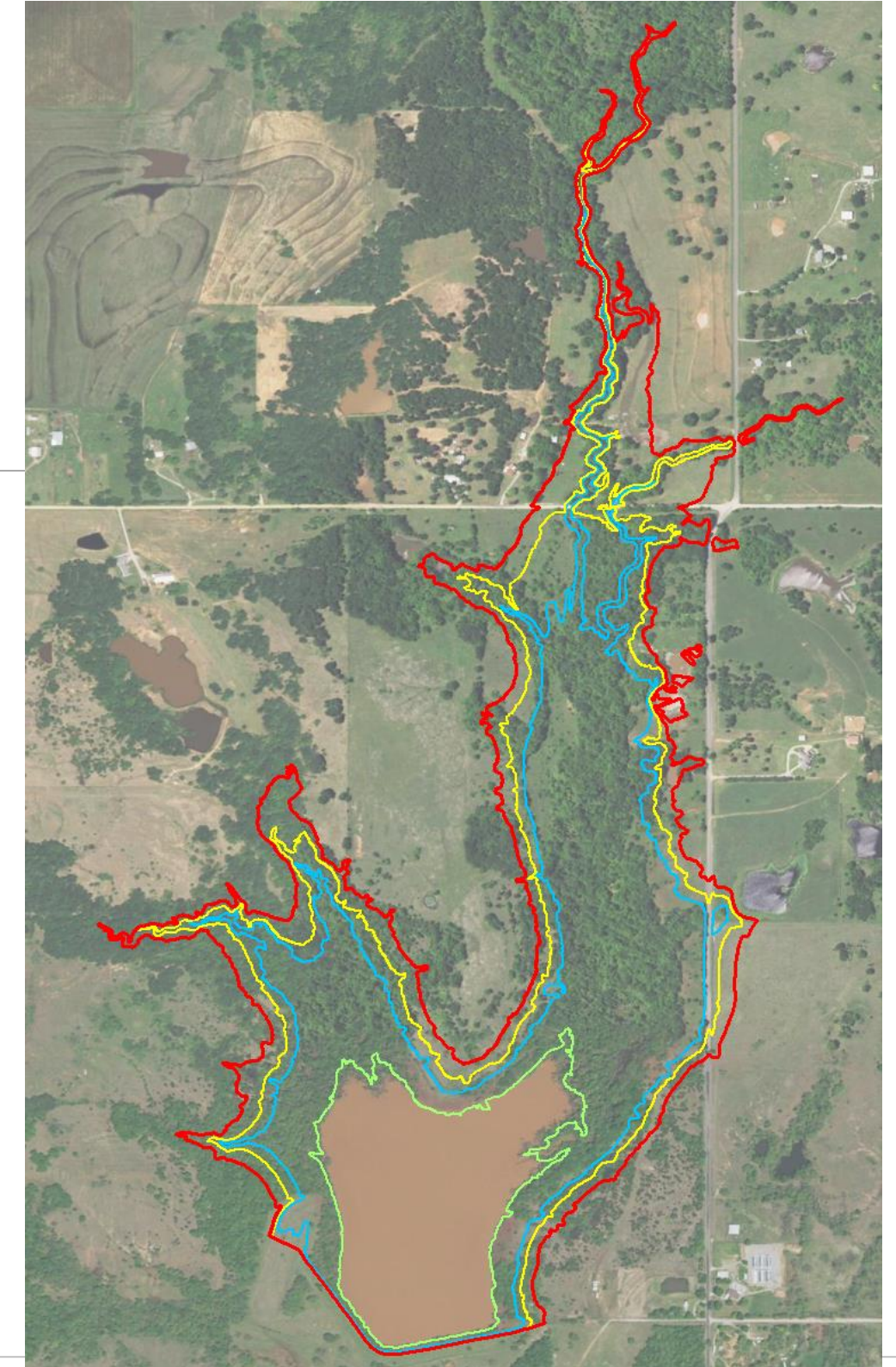
0 25 50 100 Miles





Flood Pool Elevations

- NRCS Dam Elevations from Construction Drawings
 - Principal Spillway
 - Auxiliary/Emergency Spillway
 - Effective Top of Dam
- Create additional elevation dataset:
Effective Top of Dam +5 feet
- Using LIDAR to build DEMs (digital elevation models)
- Map Flood Pool Elevations using GlobalMapper



	Original As--Built Data					Rehabilitation As-Built Data															
Easement File Name	Watershed	Watershed Abbreviation	Dam Number	Emer. Spillway Width (Ft)	Height of Dam (Ft)	Orig. As-built NGDV Elev.			NGDV to NAVD	Adjusted As-built NAVD Elev.				Drainage Area (Sq. Mi.)	Sediment Pool Surface Area (Ac)	Date Rehab Construction Completed	Emer. Spillway Width (Ft)	Height of Dam (Ft)	REHAB As-built NAVD Elev.		
						Princ. Spwy Elev. NGDV	Auxiliary Spillway Elev. NGDV	Effective Top of Dam Elev NGDV		Princ. Spwy Elev. NAVD	Auxiliary Spillway Elev. NAVD	Effective Top of Dam Elev. NAVD							Princ. Spwy Elev. NAVD	Auxiliary Spillway Elev. NAVD	Effective Top of Dam Elev. NAVD
OK00574 ESM BAR D16	Barnitz Creek	BAR	16	125	31	1791.0	1806.0	1811.0	0.808	1791.8	1806.8	1811.8		7.22	65	8/24/2014	300	52	1888.7	1903.1	1909.8
OK00575 ESM BAR D17	Barnitz Creek	BAR	17	250	42	1766.0	1786.5	1792.0	0.802	1766.8	1787.3	1792.8									
OK00576 ESM BAR D18	Barnitz Creek	BAR	18	50	26	1772.5	1782.5	1787.5	0.804	1773.3	1783.3	1788.3									
OK00577 ESM BAR D19	Barnitz Creek	BAR	19	40	32	1756.7	1769.2	1774.5	0.804	1757.5	1770.0	1775.3		2.38	24	9/15/2017	125	33	1862.4	1878.5	1855.5

Effective Top of Dam +5 feet (Elev 981.9 ft)



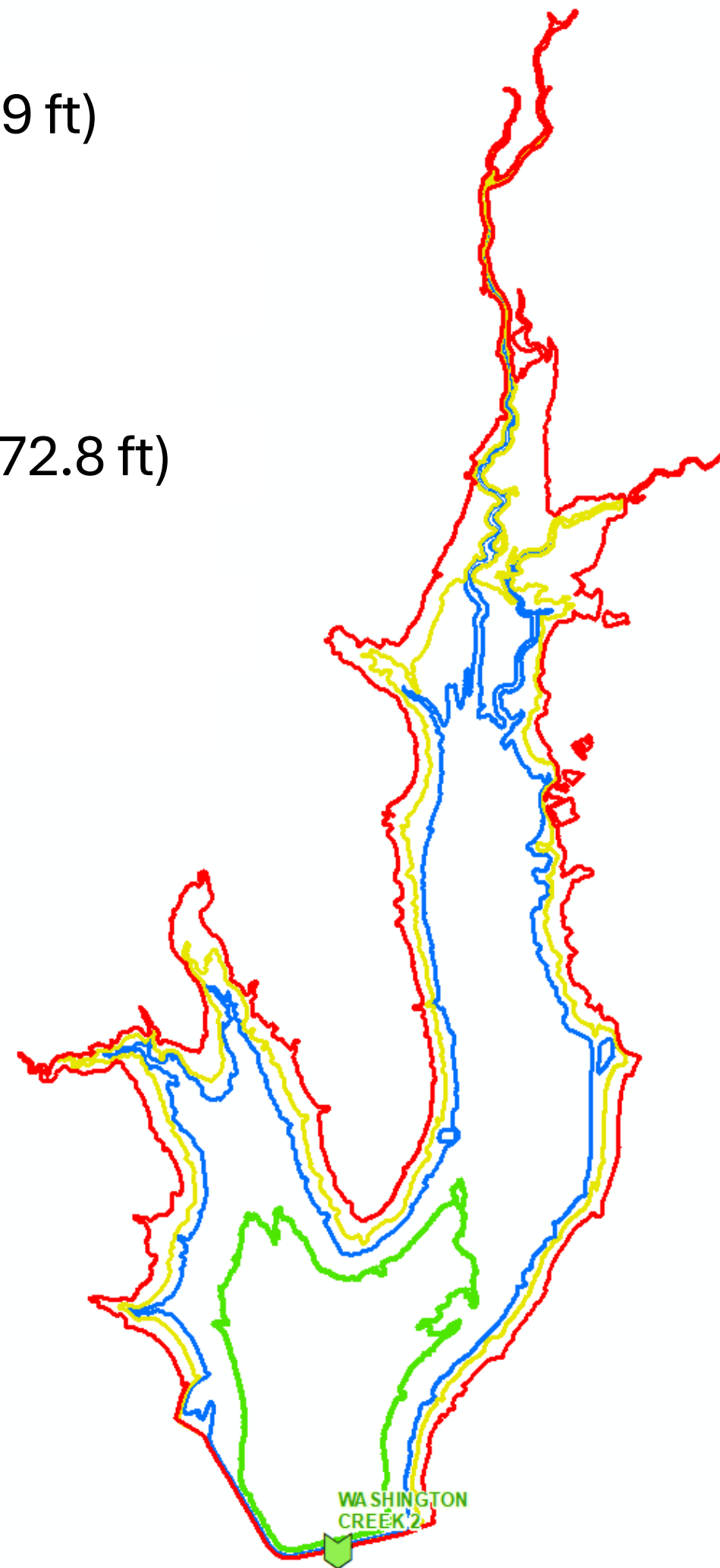
Effective Top of Dam (Elev 976.9 ft)

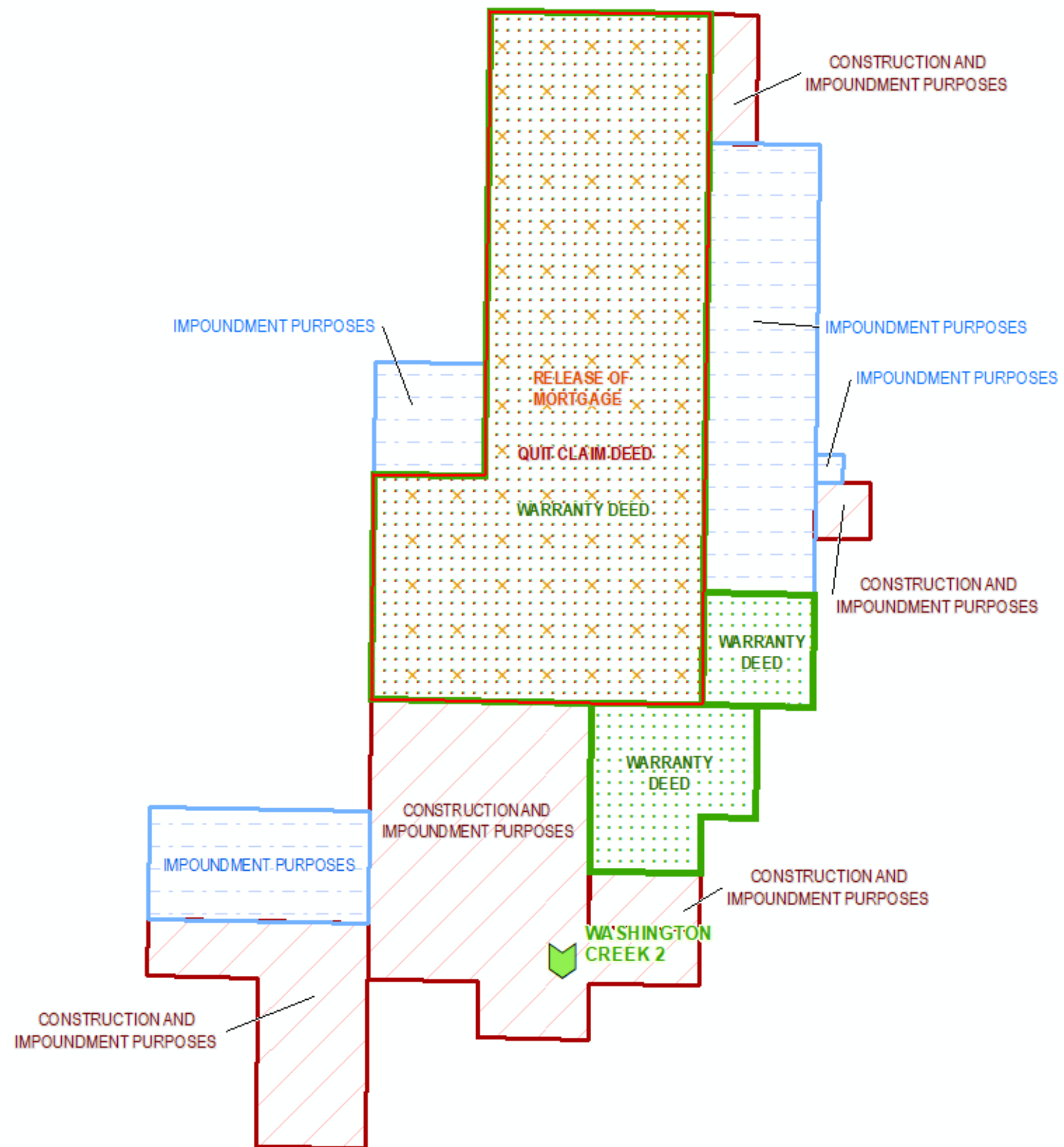


Auxiliary (Emergency) Spillway (Elev 972.8 ft)



Principal Spillway (Elev 961.3 ft)





Effective Top of Dam +5 feet (Elev 981.9 ft)



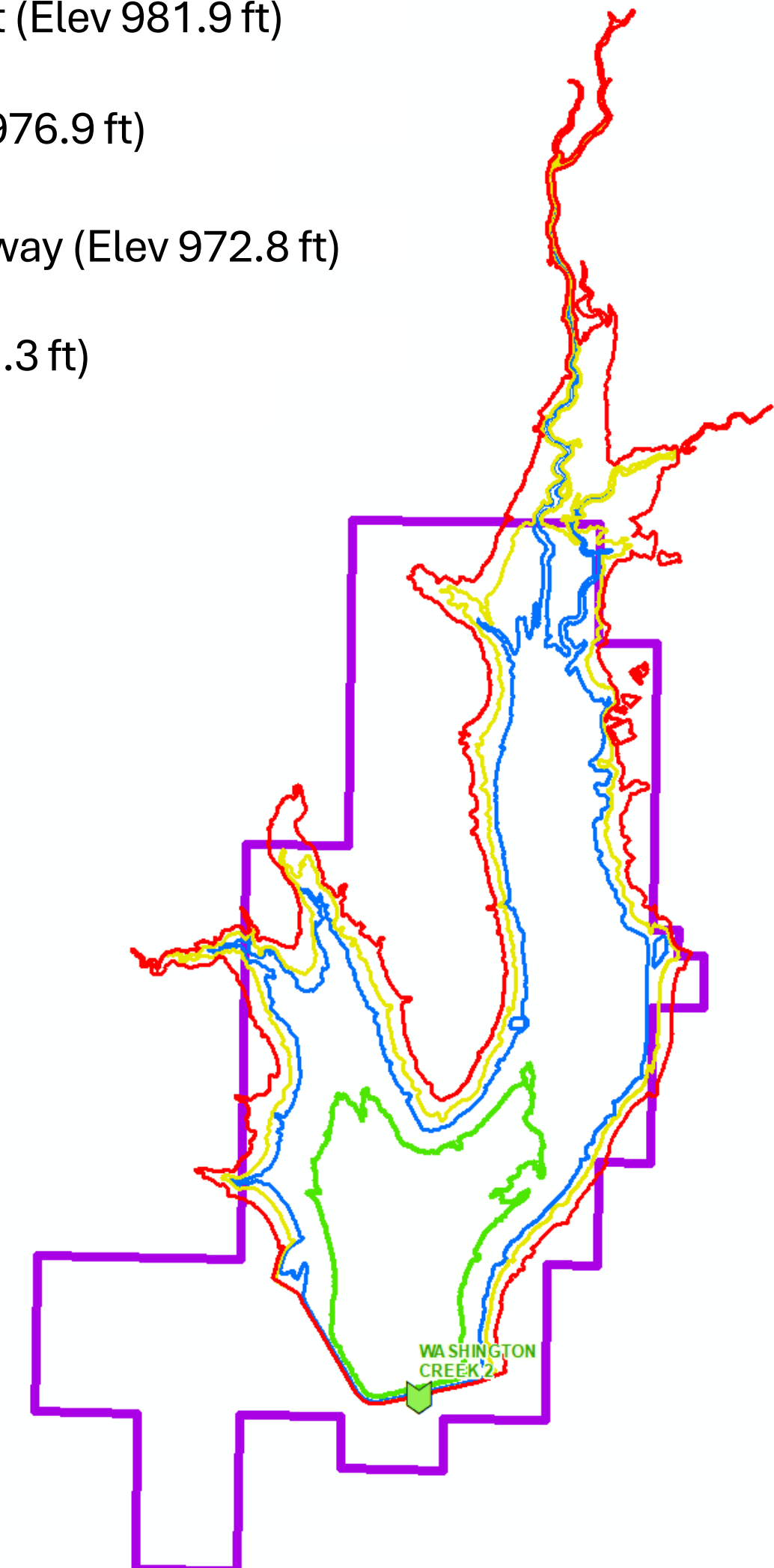
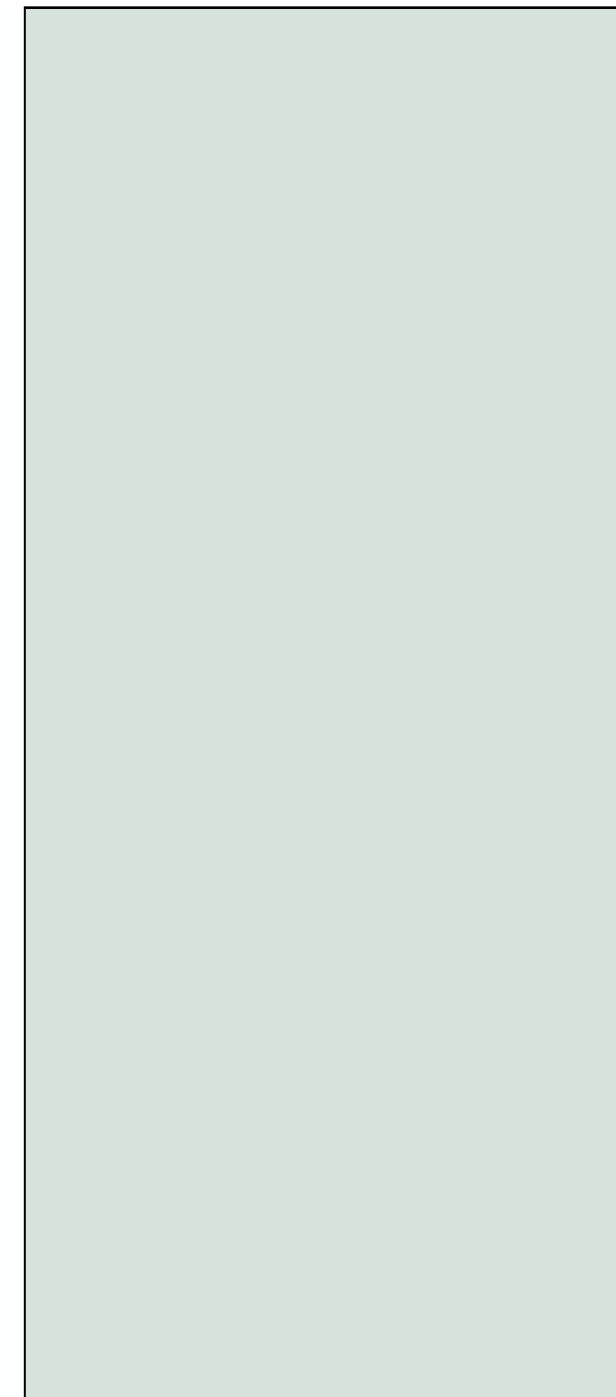
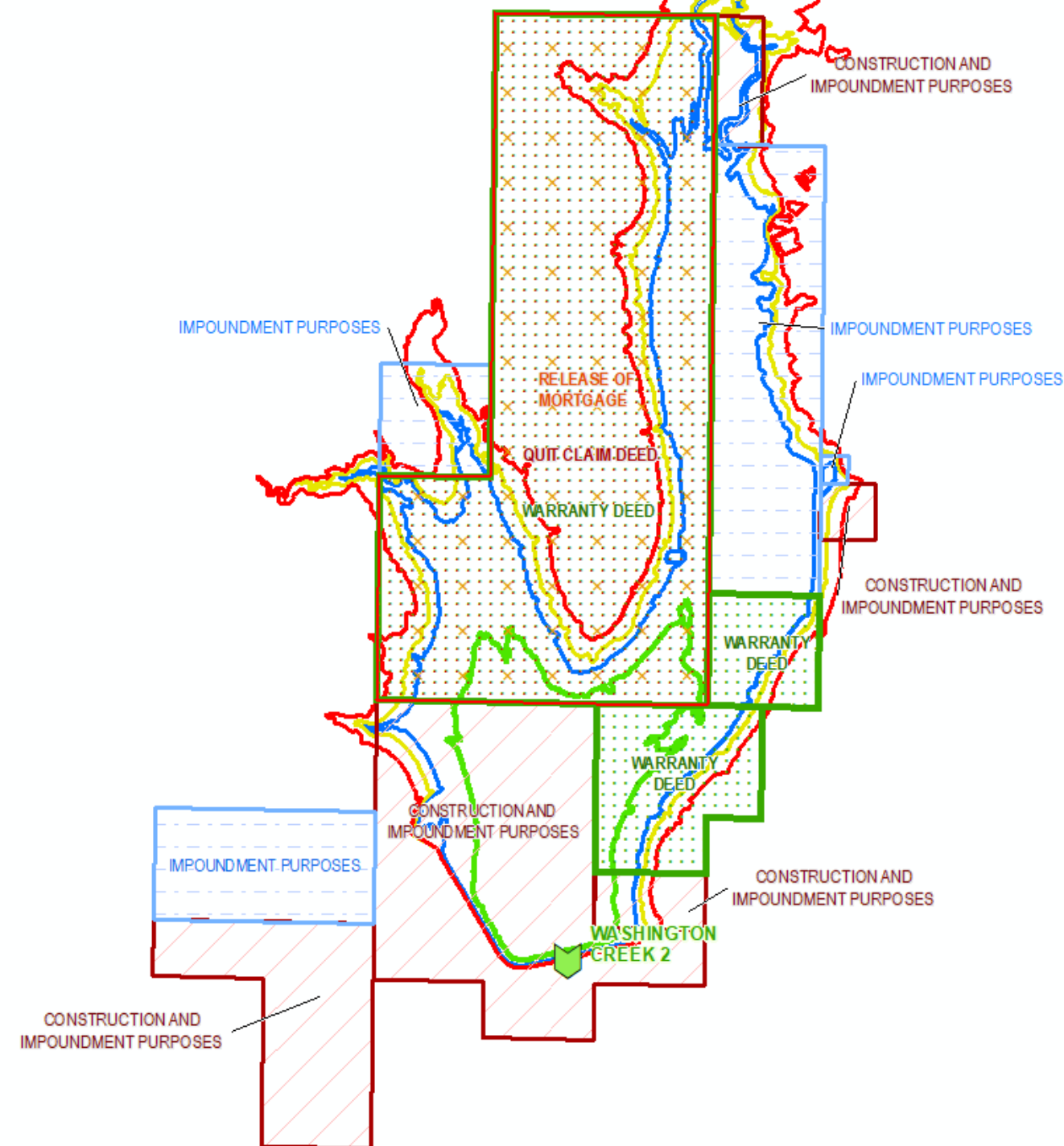
Effective Top of Dam (Elev 976.9 ft)

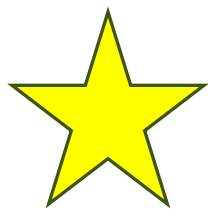


Auxiliary (Emergency) Spillway (Elev 972.8 ft)



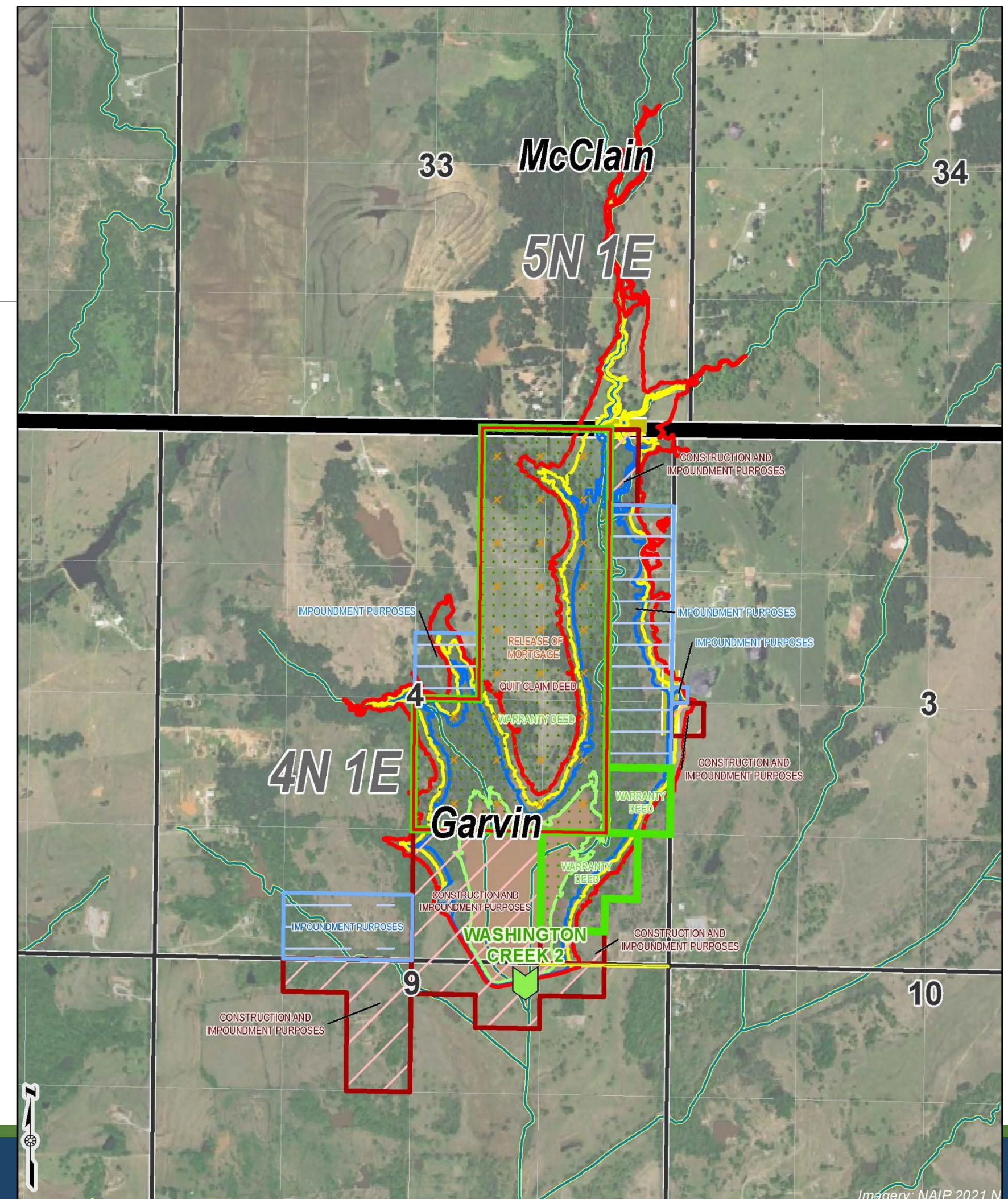
Principal Spillway (Elev 961.3 ft)





OKMaps Demo

- Data will be available to the public in the future.
- We are working on how we will roll data out to OKMaps.



Questions?

Wendie Sharp

Wendie.Sharp@Conservation.ok.gov

TJ Hathcock

TJ.Hathcock@Conservation.ok.gov