

Tennessee Valley Authority GIS and Mapping

EPRI GIS Interest Group Webcast

August 28, 2014

Presenter: Tiffany Gibby



GIS and Mapping - Organization

TVA

- Shared Services
 - Natural Resources & Real Property Services
 - Reservoir Land Use & Permitting
 - Public Outreach & Recreation
 - Natural Resources Management
 - Realty Services & GIS
 - **GIS & Mapping**
 - Realty Services
 - Real Estate Strategy & Support
 - Supply Chain & Facilities
 - TVA Police & Emergency Management
 - Safety & Health
 - Information Technology



GIS and Mapping

GIS and Mapping Vision:

Lead TVA to greater efficiency and productivity by providing high quality, value-driven GIS information and mapping technologies.

GIS and Mapping Mission:

GIS and Mapping will serve TVA's business needs and operational processes by increasing the value, accessibility and usability of geospatial technology; providing high quality mapping services; and promoting TVA's geographic presence to both internal and external stakeholders.



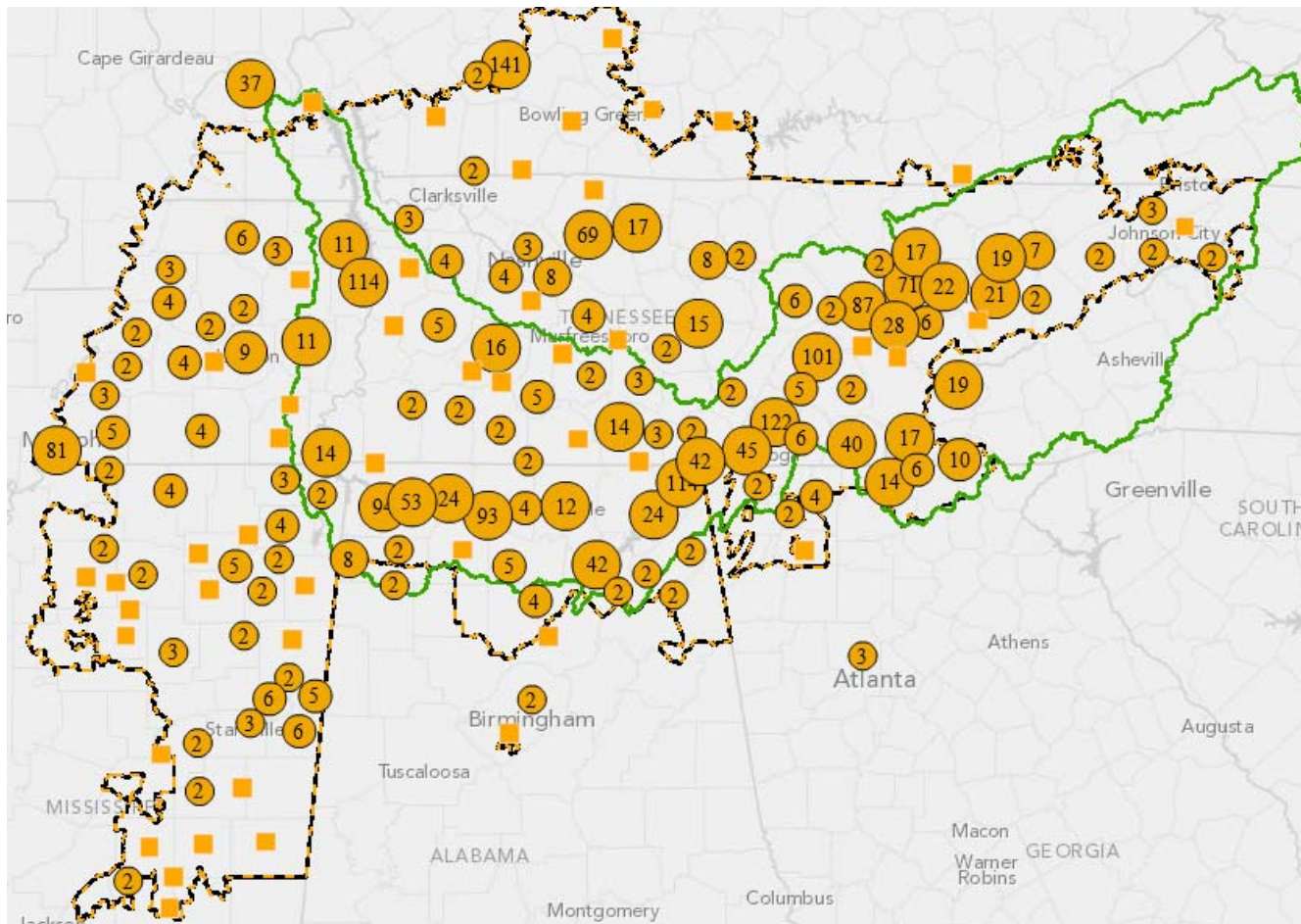
Goals

- Provide a framework for governance, development and use of geospatial information and technology *(central resource for all things GIS)*
- Make GIS and mapping data available and easy to use for TVA's people and processes
- Ensure TVA's geospatial data and tools are of the highest integrity, quality, and variety while being cost-effective and innovative
- Educate and inform TVA stakeholders of the value and benefits of GIS
- Rank in the top decile of Enterprise GIS system performance in the electric utility industry



Examples of Our Work

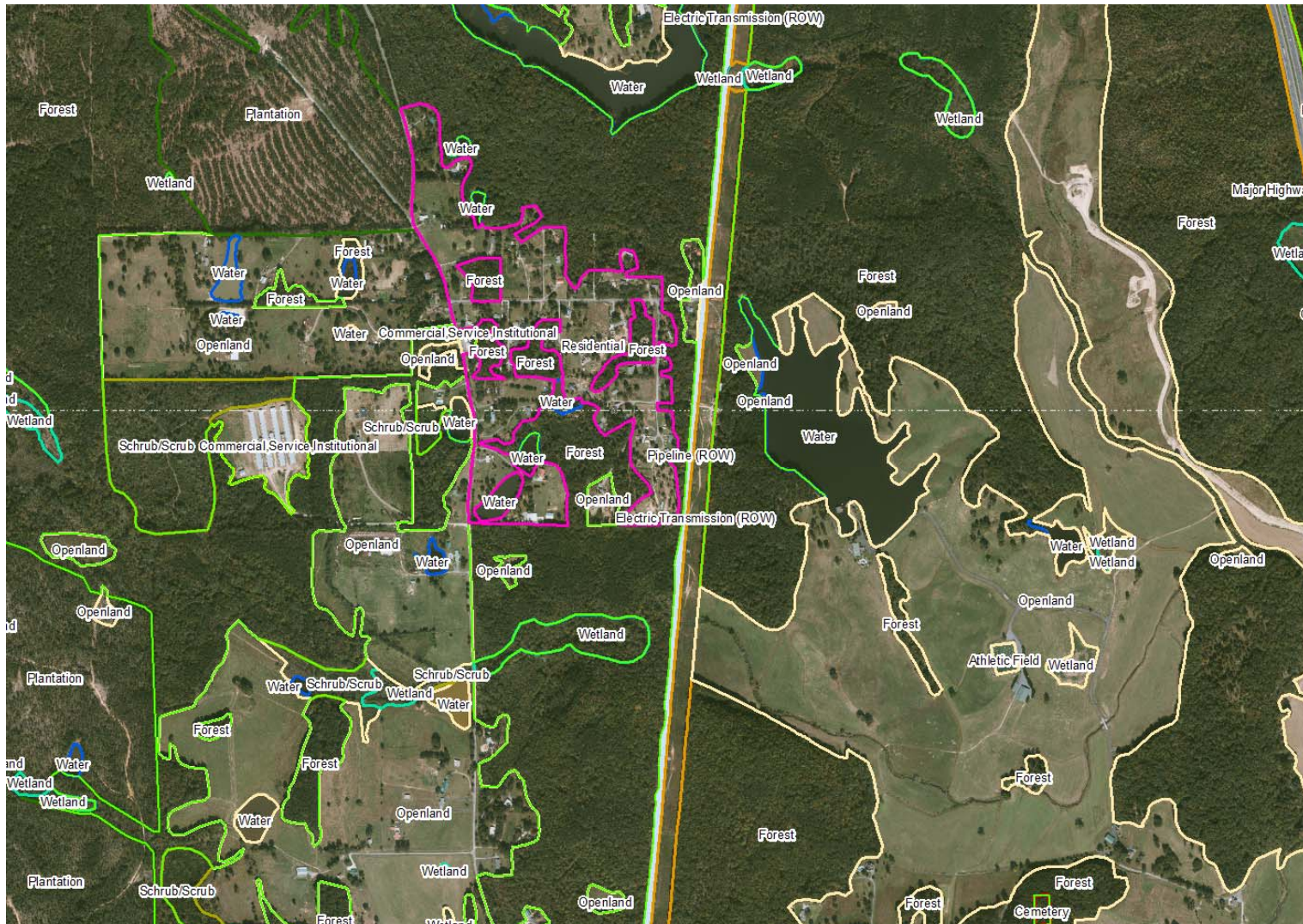
TVA Facilities





Examples of Our Work

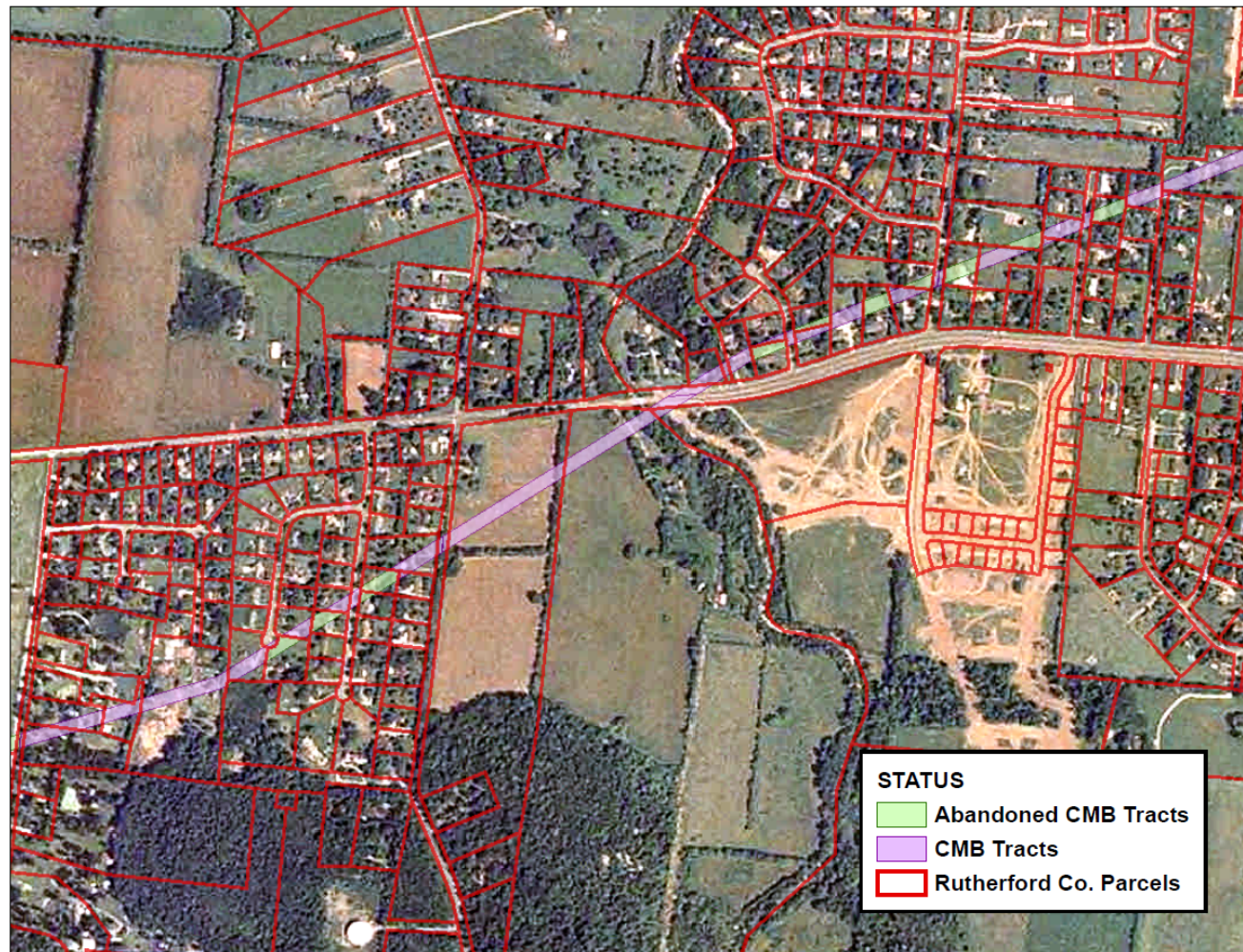
TL Siting





Examples of Our Work

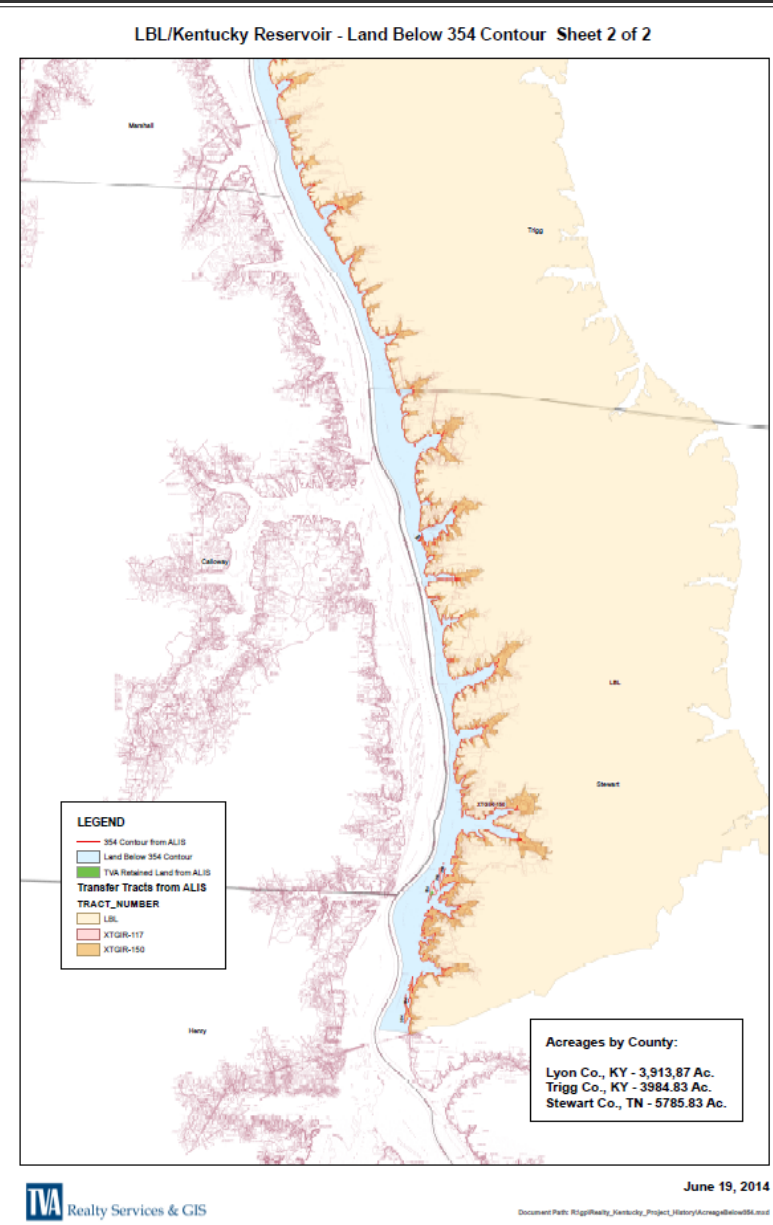
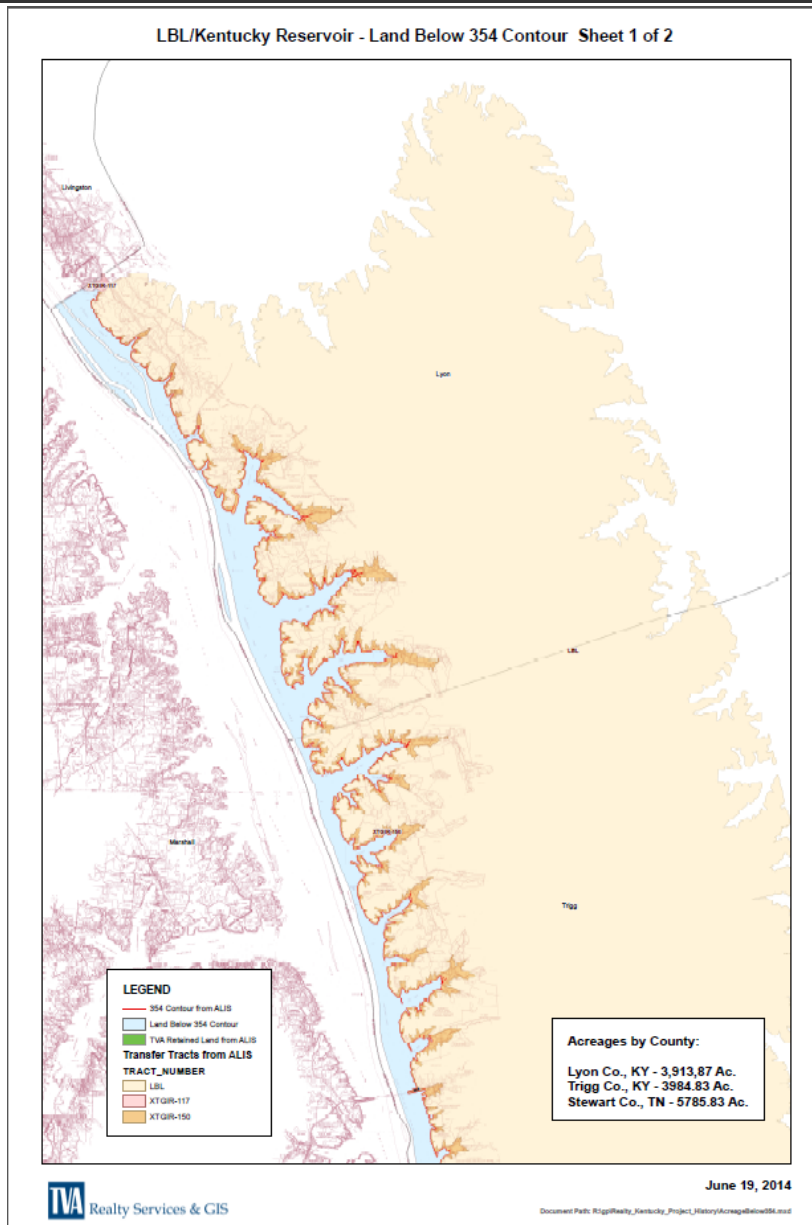
Nashville Development Inquiry





Examples of Our Work

LBL





Examples of Our Work

Property Viewer

Property Map
Enterprise GIS Maps

Tract ID Search

%nwn-13

Search

Select search layers

- Land Records Retained
- Land Records Easement
- Land Records Sale
- Land Records Flowage Easement
- Land Records Transfer
- Beech River Lands Acquired
- New Trans. Line Tracts
- Legacy Trans. Line Tracts
- Vacant/Inactive Tracts

Clear Search Results

Search Results - %nwn-13 | Number of Results: 2

Queried Layers	Tract ID	Transmission Line	Drawing	LW Acreage	Status	T. Planning Link	GIE Comment	Editor
Vacant/Inactive Tracts	Tract ID	Transmission Line	Drawing	LW Acreage	Status	T. Planning Link	GIE Comment	Editor
	2SNWN-13	LW-1800 s5			DE-ENTP	1734	100' WIDE	doketterer
	XSNWN-13	L5134	TEPCO-18017s3		CONVEYED		FEE TRACT SOLD; TVA RESE	jap

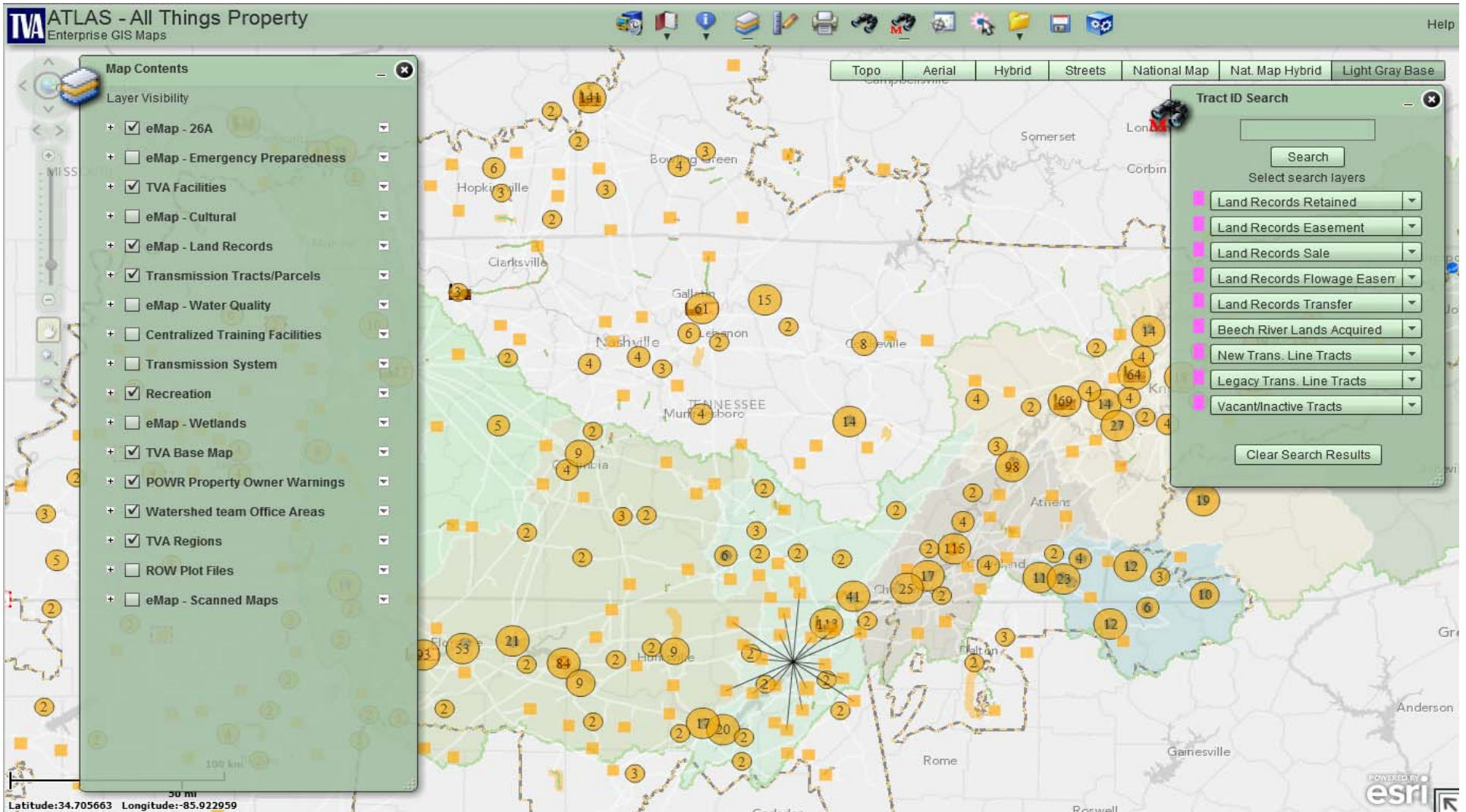
Export to CSV

Powered by esri



Examples of Our Work

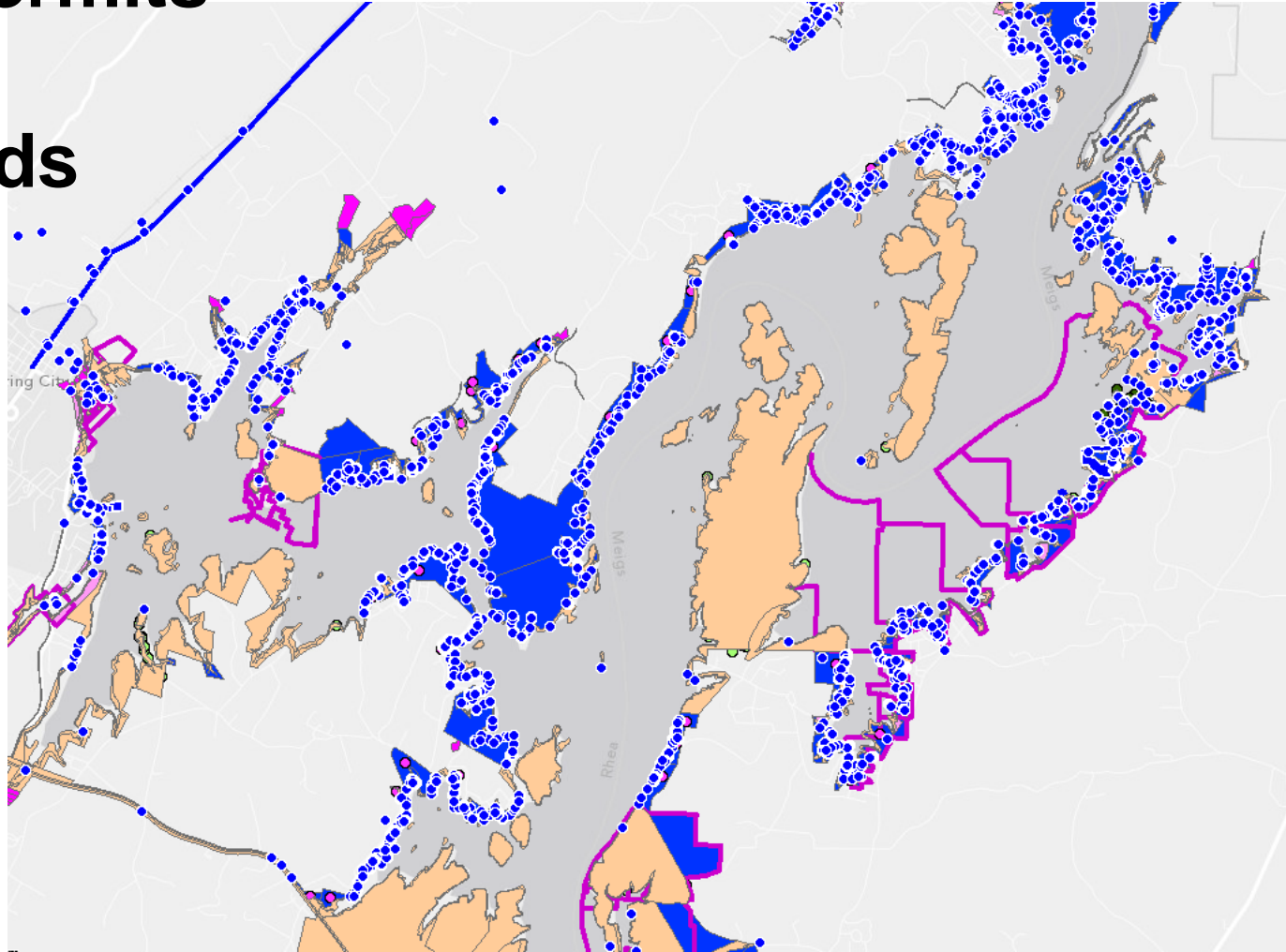
ATLAS





Examples of Our Work

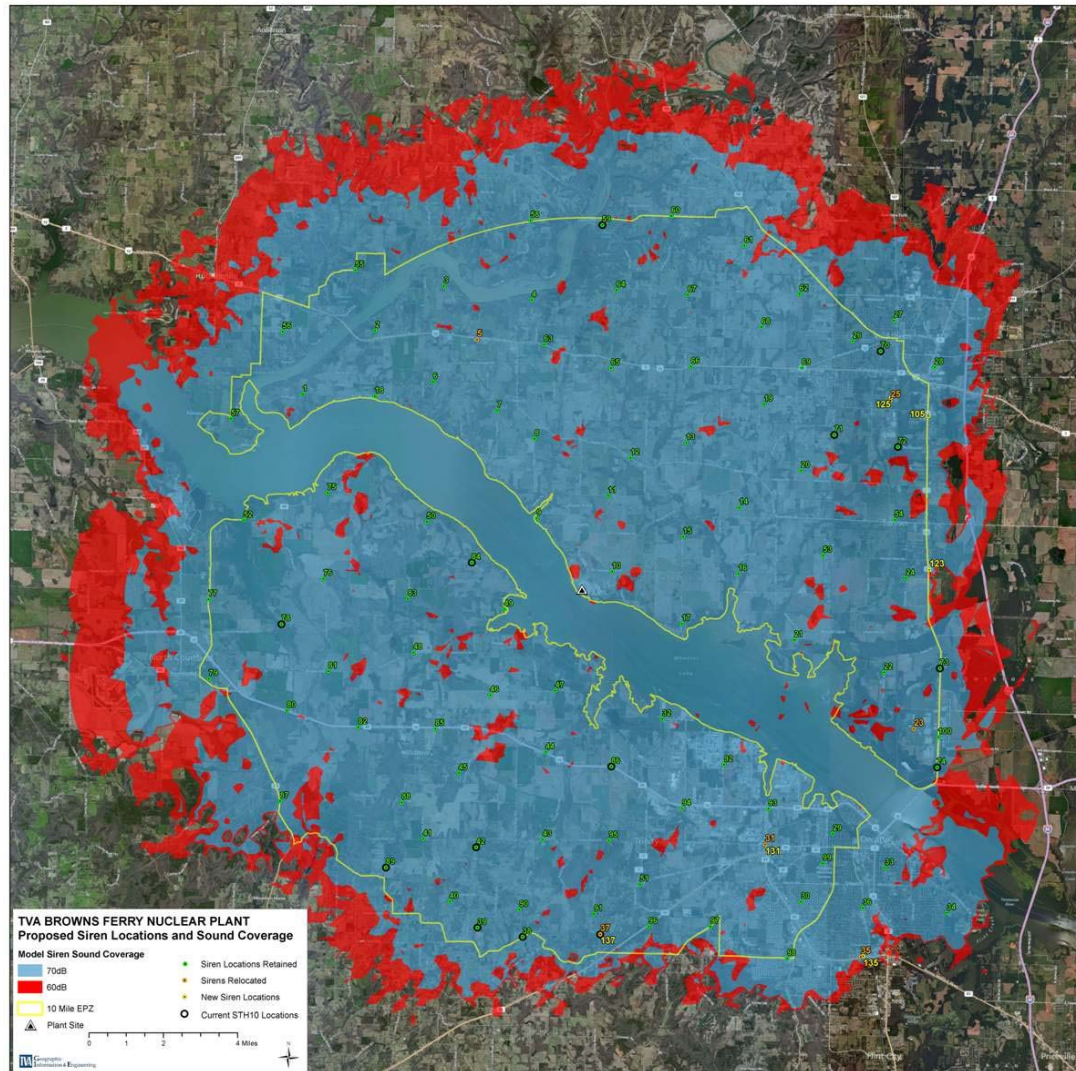
26A Permits Land Records





Examples of Our Work

Siren Project





Examples of Our Work

Bathymetry

Chatuge Reservoir Bathymetry

Comparing elevation contours in TVA's Chatuge Reservoir

This web application was created to compare bathymetric contour data on TVA's tributary reservoirs. The bathymetric data used in this application was digitized using pre-flooded USGS 50 ft contour data. The data was then interpolated back into a digital elevation model and used to create 1 ft. contour data. This is a model and should be used for visualization purposes only. Directions: To use the map, simply enter in the desired elevation and hit 'Apply' to see the results.

Chatuge Reservoir Height 1
The water elevation is:

Choose an elevation between 1802 ft (deepest) & 1928 ft (full pool)
Apply

Chatuge Reservoir Height 2
The water elevation is:

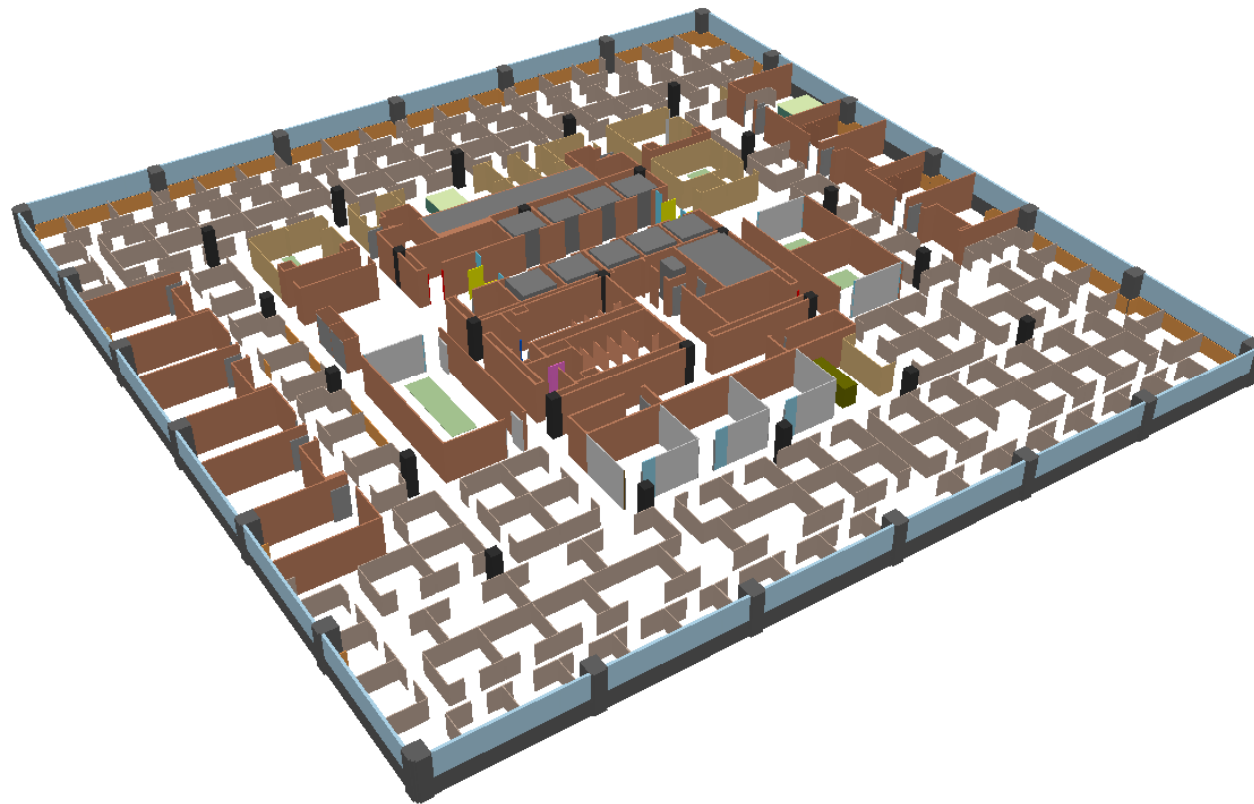
Choose an elevation between 1802 ft (deepest) & 1928 ft (full pool)
Apply

POWERED BY
DigitalGlobe, GeoEye, Microsoft, USGS
esri



Examples of Our Work

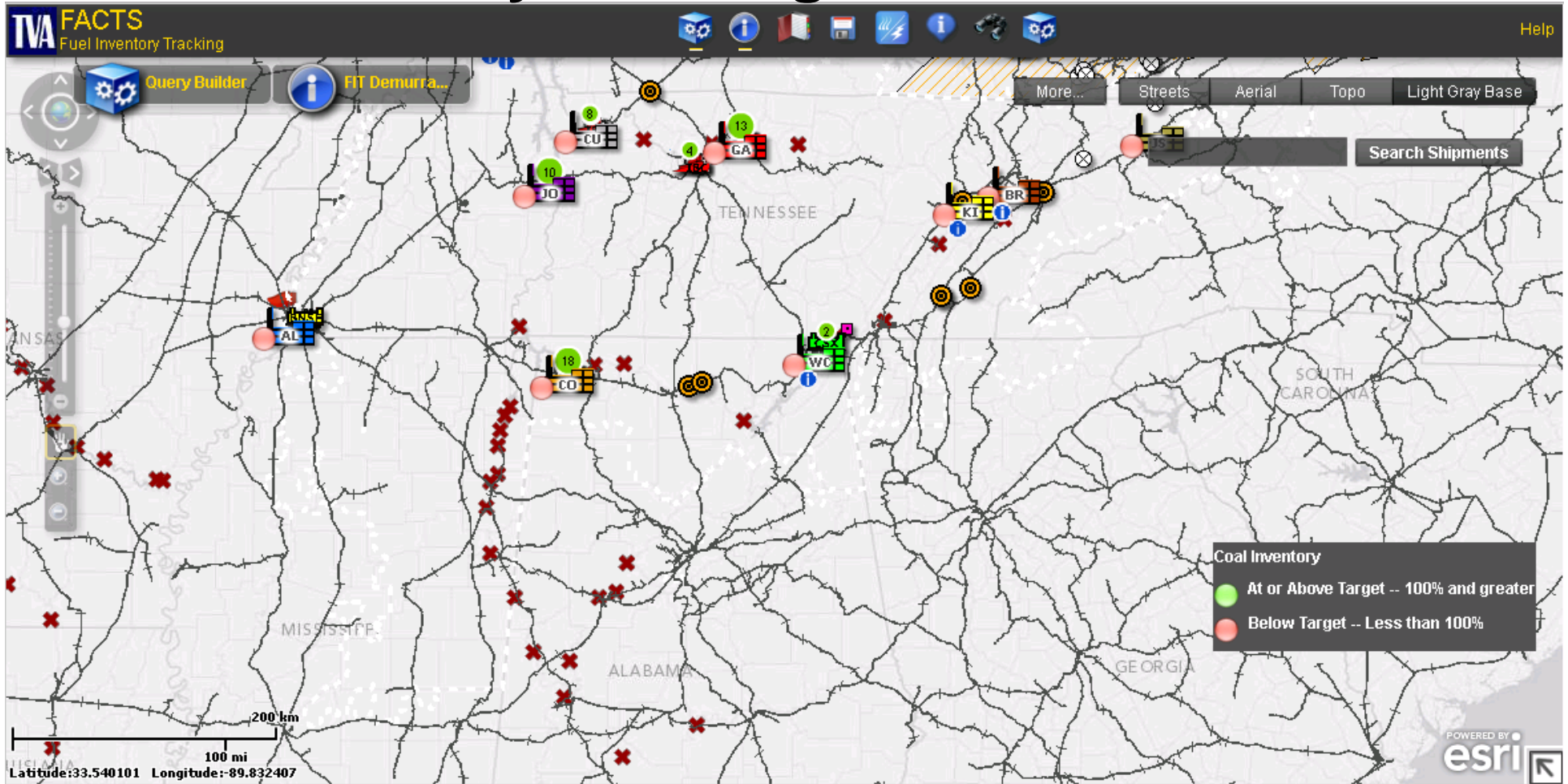
3D Mapping of Buildings





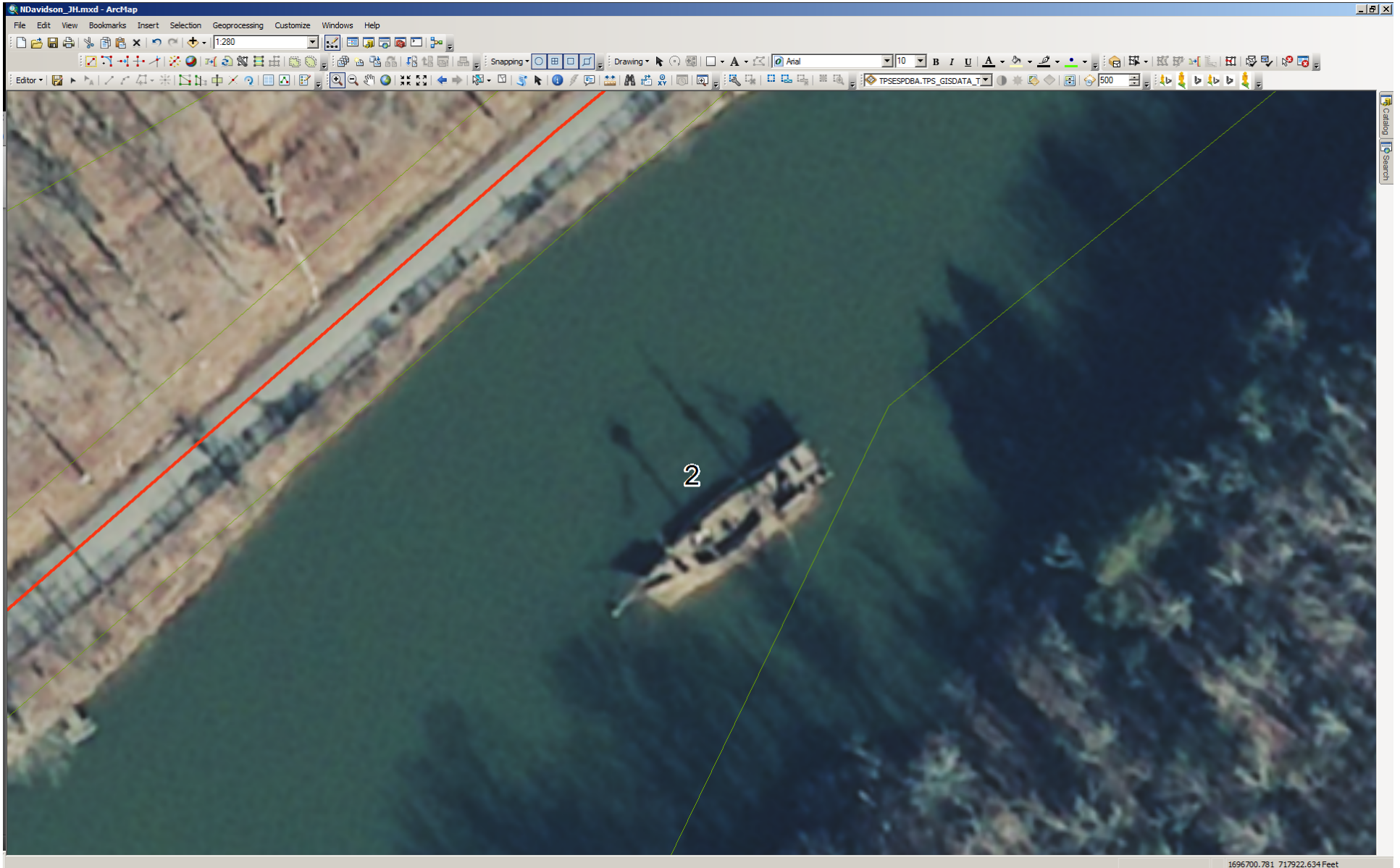
Examples of Our Work

Fuel Inventory Tracking





You never know what you'll find...



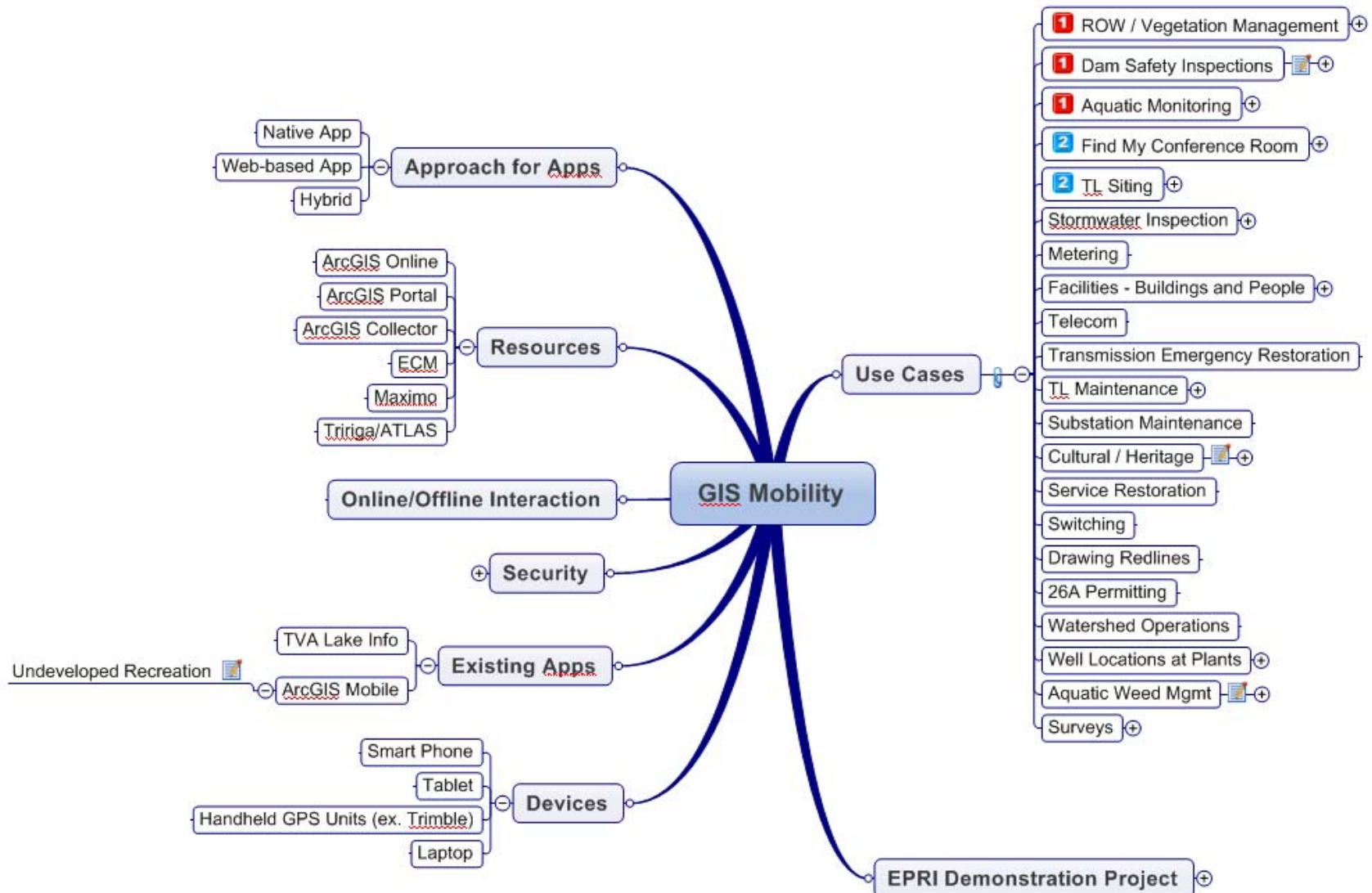


Key Initiatives

- GIS & Mapping 5-Year Strategic Plan
- GIS & Mapping Data Management
 - *Assessment of Electronic Data*
 - *Historical Records at Hickory Valley*
 - *Process Documentation*
- Modernization of GIS Capabilities
 - *Advanced Analytics*
 - *GeoEvent Processing*
- Assessment of Services to Real Property Transactions, Legal and Records >> ATLAS Project
- GIS Mobility Solutions
- Situational Awareness for TVA
 - *Transmission Operators and TEOC*
 - *Generation Emergency Ops Centers*
 - *Field Personnel – **Augmented Reality***



GIS Mobility Solutions





Challenges

- Extremely high work load... and growing!
- Preparing for departures
- Communications
- Maps Store Records and responses to inquiries

Questions?