

USGS 3D Elevation Program

**Tennessee Department of Finance and Administration
Office for Information Resources – GIS Services
Dennis Pedersen, Director**

Cumberland URISA January 23, 2015



GIS Background

- OIR – GIS Services function:
 - Lead GIS coordination efforts at State level
 - Develop framework GIS datasets
 - Host / share geospatial data via TNMap
 - <http://tnmap.tn.gov>
 - Develop GIS applications for State agencies



USGS 3DEP Program Summary

- Acquire nationwide high res. LiDAR elevation data
- Backed by a comprehensive business plan (2011)
- Estimated annual benefits of \$1.2 billion nationwide
- Goal to start data production in 2015
- Looking to establish partnerships/collaboration on funding the program now (Broad Area Announcement)
- USGS is proposing contributions up to 50%
- Seeking proposals from 3DEP supporters at Fed, State, and local gov. levels



Benefits for Top Business Uses

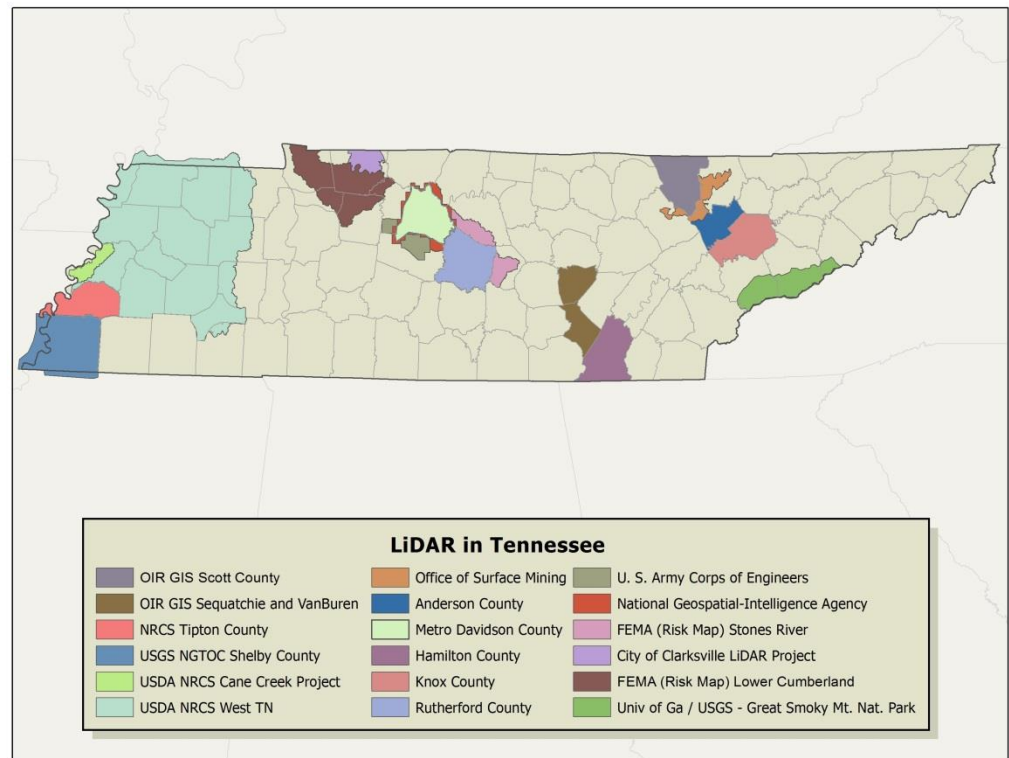
		Annual Benefits	
Rank		Conservative	Potential
1	Flood Risk Management	\$295M	\$502M
2	Infrastructure and Construction Management	\$206M	\$942M
3	Natural Resources Conservation	\$159M	\$335M
4	Agriculture and Precision Farming	\$122M	\$2,011M
5	Water Supply and Quality	\$85M	\$156M
6	Wildfire Management, Planning and Response	\$76M	\$159M
7	Geologic Resource Assessment and Hazard Mitigation	\$52M	\$1,067M
8	Forest Resources Management	\$44M	\$62M
9	River and Stream Resource Management	\$38M	\$87M
10	Aviation Navigation and Safety	\$35M	\$56M
:			
20	Land Navigation and Safety	\$0.2M	\$7,125M
Total for all Business Uses (1 – 27)		\$1.2B	\$13B

Existing LiDAR in TN

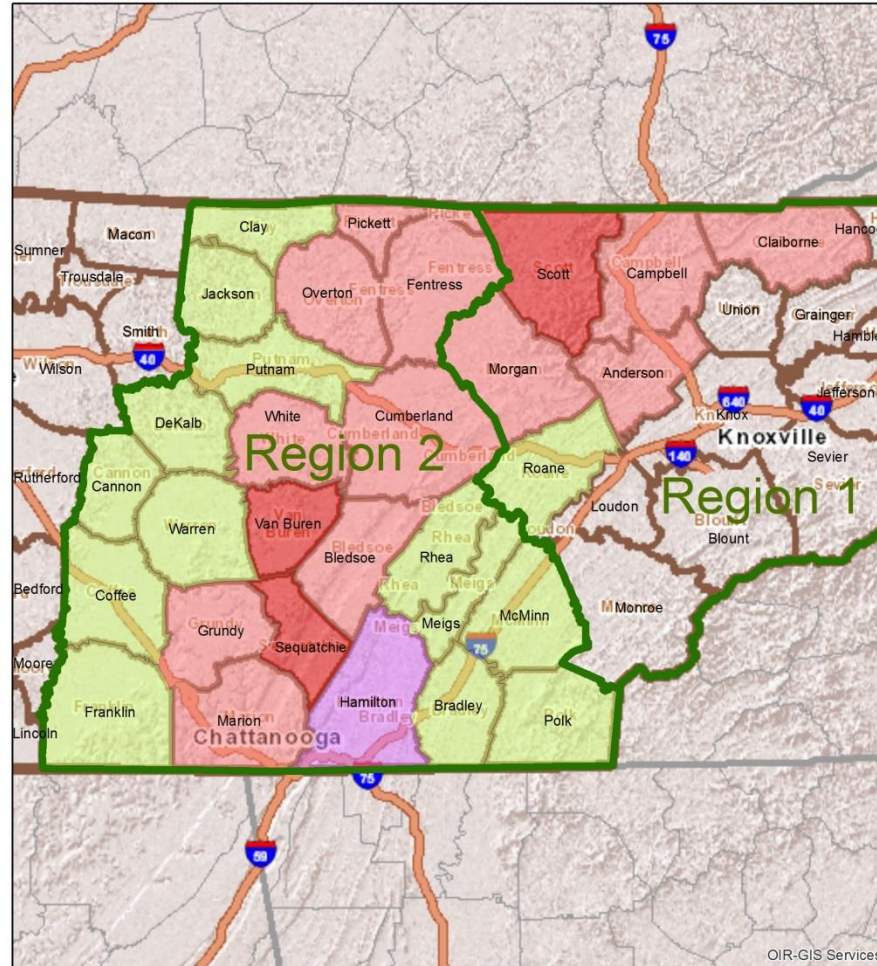
- **Approximately 20% coverage in the state**
- **Estimated cost of remaining 80% is: \$6 million**

Map of existing
LiDAR coverage

<http://gis.tn.gov/>



Proposed Tennessee 3DEP Counties



- TDOT Region Boundaries
- LiDAR**
- Existing QL2 Data
- TVA/Hamilton Co. Area of Interest
- DOI-OSM Area of Interest
- TDOT Area of Interest



Proposed TN 3DEP Partnership Funding Model

- TN Dept. of Transportation – 25%
- US Dept. of Interior – Office of Surface Mining – 25%
- Other government sources – 25%
 - USDA/NRCS
 - TVA
 - Hamilton Co./City of Chattanooga
 - DOE – Oak Ridge Office
 - TN Dept of F&A – OIR-GIS Services
 - USACE / Wilson Co. consortium
- **Proposed USGS 3DEP Funding – 25% (\$670,000)**
- Estimated 27 county total cost - \$2.7 million



Current Status:

- Submitted Pre-Proposal (Due date: 11/7/14)
- Submitted Full Proposal 12/12/14
- Contract Negotiations between USGS and State
- 3DEP Award notifications ????
- Winter/Spring 2015 begin acquisition ???
- Existing LiDAR data available on TN Spatial Data Server: <http://tngis.org/lidar.htm>



Other Current State GIS Efforts:

- Next Generation 911 Status
 - GIS data used to support call routing and location validation
 - TIPS data QC scripts installed in 911 districts
 - Create GIS address point based MSAG
 - Rollout: Early 2015 goal for West TN
- USDA NAIP Imagery
 - Beginning to acquire what is available from 2014 (1/4 of state)
 - Create image cache for TNMap enterprise GIS users
- TDOT Ortho Imagery
 - 22 of 24 counties received for middle TN (TDOT Region 3)
 - OIR - GIS delivering to local gov.
 - Creating image cache for TNMap enterprise GIS users





Tennessee Base Mapping Program

Production Status as of November 2014



Tennessee Counties

Complete, In Progress, and Projected Production

2012 TDOT Imagery Counties Delivered & Published

Benton	Hardin	Tipton
Carroll	Haywood	Weakley
Chester	Henderson	
Crockett	Henry	
Decatur	Lake	
Dyer	Lauderdale	
Fayette	Madison	
Gibson	Obion	
Hardeman	Shelby	

2013 TDOT Imagery County Imagery Delivered

Bedford	Macon	Wayne
Cheatham	Marshall	
Dickson	Maury	
Giles	Moore	
Hickman	Montgomery	
Houston	Smith	
Lawrence	Stewart	
Lewis	Sumner	
Lincoln	Trousdale	

2010 TDOT Imagery Counties Delivered & Published

Bledsoe	Grundyl	Putnam
Bradley	Hamilton	Rhea
Cannon	Jackson	Sequatchie
Clay	Marion	VanBuren
Coffee	McMinn	Warren
Cumberland	Meigs	White
Dekalb	Overton	
Fentress	Pickett	
Franklin	Polk	

2011 TDOT Imagery Counties Delivered & Published

Anderson	Hancock	Scott
Blount	Hawkins	Sevier
Campbell	Jefferson	Sullivan
Carter	Johnson	Unicoi
Cocke	Knox	Union
Claiborne	Loudon	Washington
Grainger	Monroe	
Greene	Morgan	
Hamblen	Roane	



Questions???

