



WHOSE LINE IS IT ANYWAY?

2015-2016 Pilot Project
Water Infrastructure Mapping

19th Annual OKSCAUG Conference
September 20, 2016

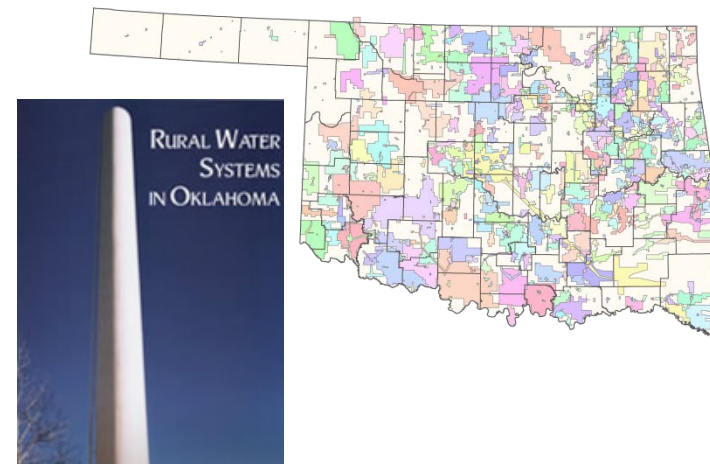
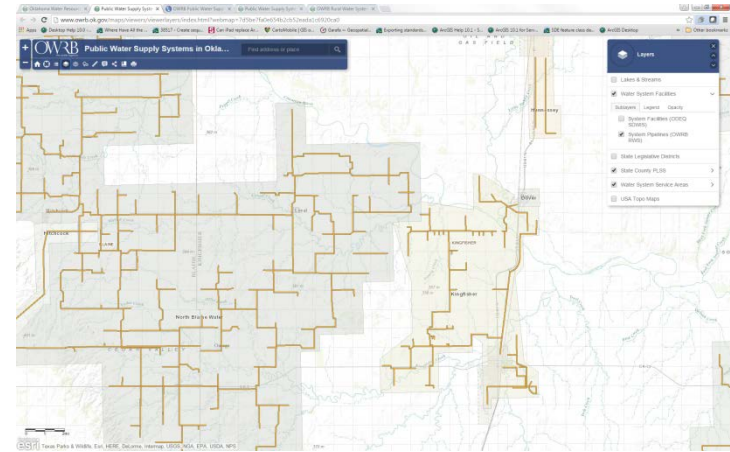
PROJECT DESCRIPTION

- Project initiated by the OWRB's Financial Assistance Division and funded through the Clean Water State Revolving Loan Fund (CWSRF)
- Map water, wastewater, storm water, and water reuse infrastructure for 7-10 small cities and rural water systems
- Develop a secure viewer to host the data that would be accessible on multiple platforms
- Invite systems whose data was mapped through the Department of Commerce GeoCIP program to also use the viewer for their data



OWRB
the water agency

- ## Existing Water Systems Viewer



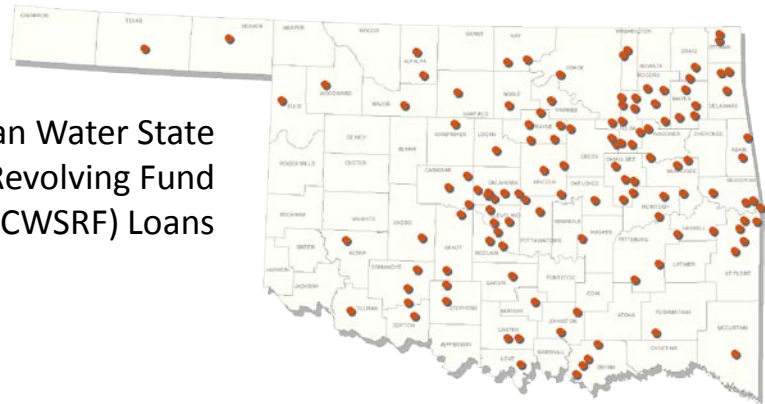
CONTRIBUTORS

- Center for Spatial Analysis (CSA),
University of Oklahoma
- Department of Commerce
- Oklahoma Department of
Environmental Quality (ODEQ)

PROJECT BENEFITS TO SYSTEMS

- Preserves infrastructure location knowledge over time
- Facilitates efficient location of infrastructure during line break events
- Facilitates efficient water line leak detection or wastewater line inspection
- Provides accurate information for planning for future system needs
- Provides accurate information for determining water/wastewater service availability for new customers
- Provides assistance developing Fiscal Sustainability Plans as part of CWSRF loans

Clean Water State
Revolving Fund
(CWSRF) Loans



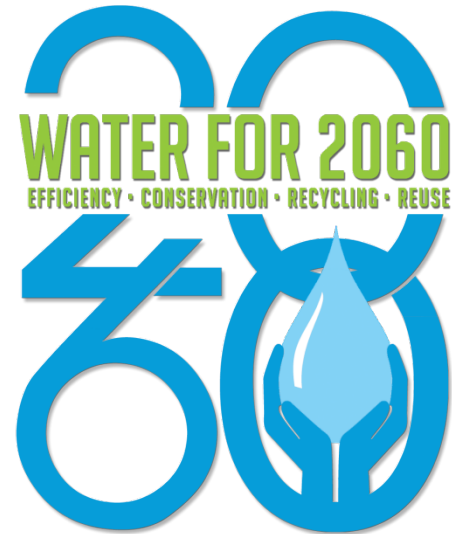
PROJECT INDIRECT BENEFITS TO SYSTEMS

- Provides data for use in the Oklahoma One-Call System
- Provides data for use by engineers for system modeling and design
- Provides data for use in sample site location determination
- Provides fire hydrant locations for use in 911 Central Dispatch Systems



PROJECT BENEFITS TO THE STATE

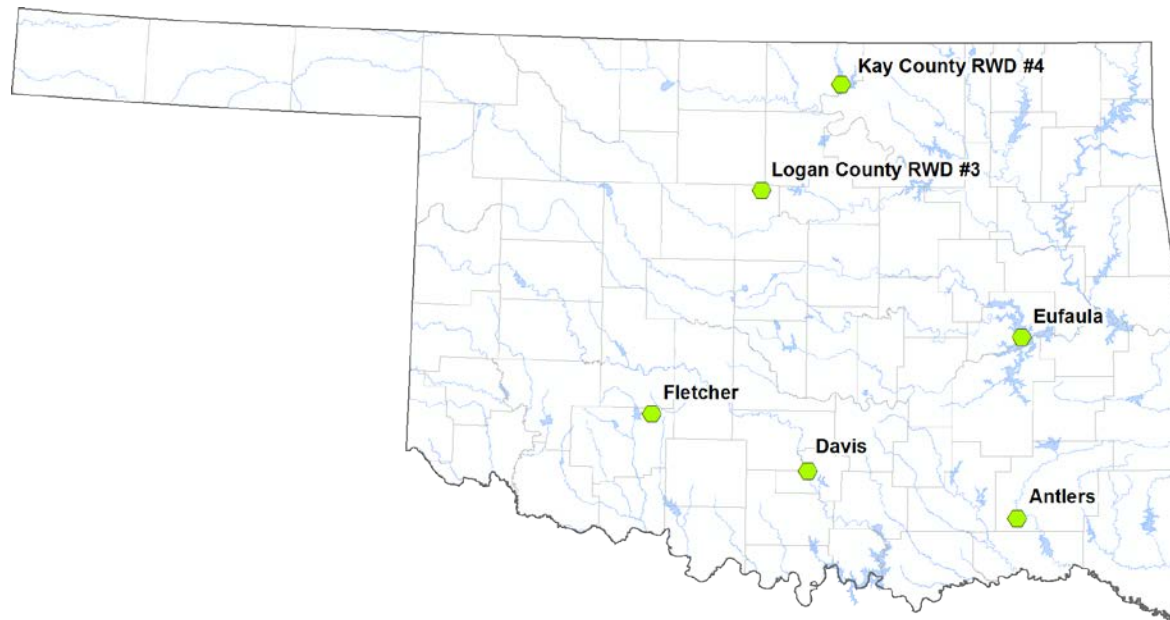
- Works toward the **Water For 2060** goal of *“Reducing water loss in transmission/distribution systems”*
- Provides updated information for OWRB’s map viewer for water systems
- Provides information for decisions concerning regionalization opportunities
- Provides information concerning water reuse infrastructure location and potential opportunities for water recycling and conservation



SYSTEMS SELECTED FOR MAPPING

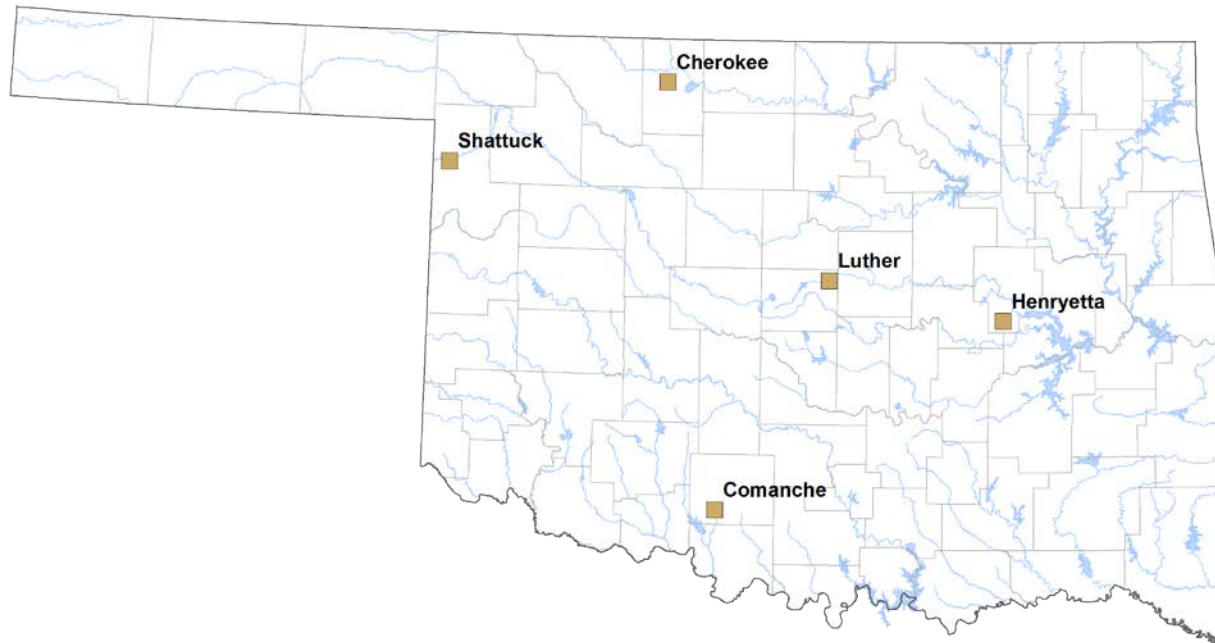
Systems invited to participate had one or more of these attributes:

- Received a loan or grant from the OWRB
- Requested to participate in the ODEQ Water Audit Program
- Were recommended as needing mapping assistance to help address sanitary sewer issues



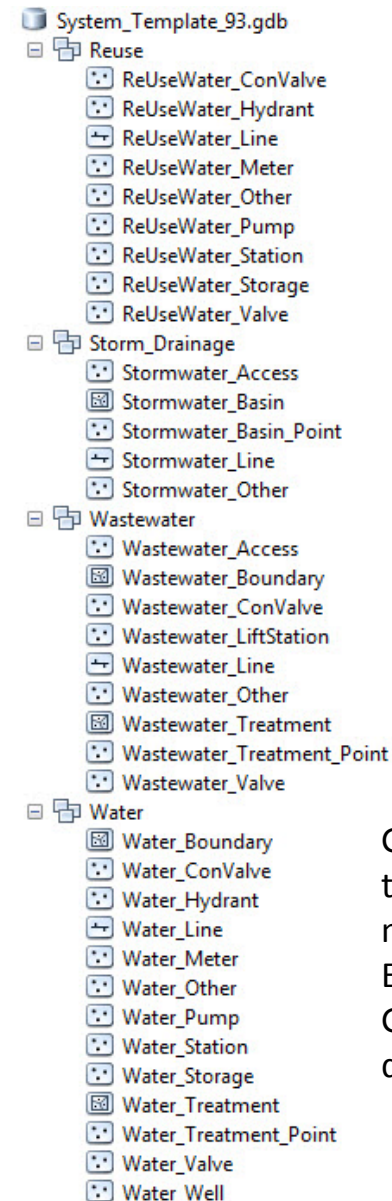
COG-MAPPED COMMUNITIES

The Council of Governments (COGs) in Oklahoma map communities as part of their Capital Improvement Planning programs. Five mapped communities were selected to be added to the Viewer.



DATA COLLECTION

- OWRB staff work with water system employees to GPS all point feature infrastructure such as valves, meters, manholes, etc. using sub-foot mapping grade Trimble GPS data collectors.
- Line features such as water and sewer lines are heads-up digitized using high-resolution aerial photography basemaps as reference.
- Old maps and system employees' knowledge of the infrastructure is utilized during the mapping process to ensure the best available data is obtained.
- A final QA/QC review of the data completes the data collection process.



Geodatabase
template
modified from
Esri Local
Government
data model.

FUTURE STEPS

- Map 6-8 additional systems. Criteria have been modified so that mapped systems have loans through the OWRB and system size will be based on number of meters rather than population.
- Allow for systems not mapped by the OWRB to be able to work with CSA directly to have their data added to the viewer.
- Add the capability for the systems to use the viewer to edit their data.

CONTACT INFORMATION

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