

Oklahoma City Utilities: Water for a City on the Rise

Oklahoma Water Resources Board
June 26, 2018

Utilities Oversight

Oklahoma City Water Utilities Trust

- Oversees water operations for 1.2 million people
- Services 19 communities and rural water districts through wholesale and retail programs
- Members: Mayor, City Manager, one council member and two Mayoral-appointed community volunteers



Water Supply



Infrastructure

- 3,800 miles of water lines
- 2,900 miles of sewer line
- Three water treatment plants (280 MGD)
- Four wastewater treatment plants (120 MGD)



Oklahoma City's Water History

Land Rush: April 2, 1889

OKC Population: 10,000 within 2 days

Water sold by the bucket by Station Master's wife



First Water Supply Reservoir

Overholser 1917

- Wells ran dry in summer months
- North Canadian River next water supply
- 35,000 citizens

“Now we have come to the point where we must have an adequate water supply and settle for all time the water problem which has faced Oklahoma City for several years...” *~ Mayor Edward Overholser*



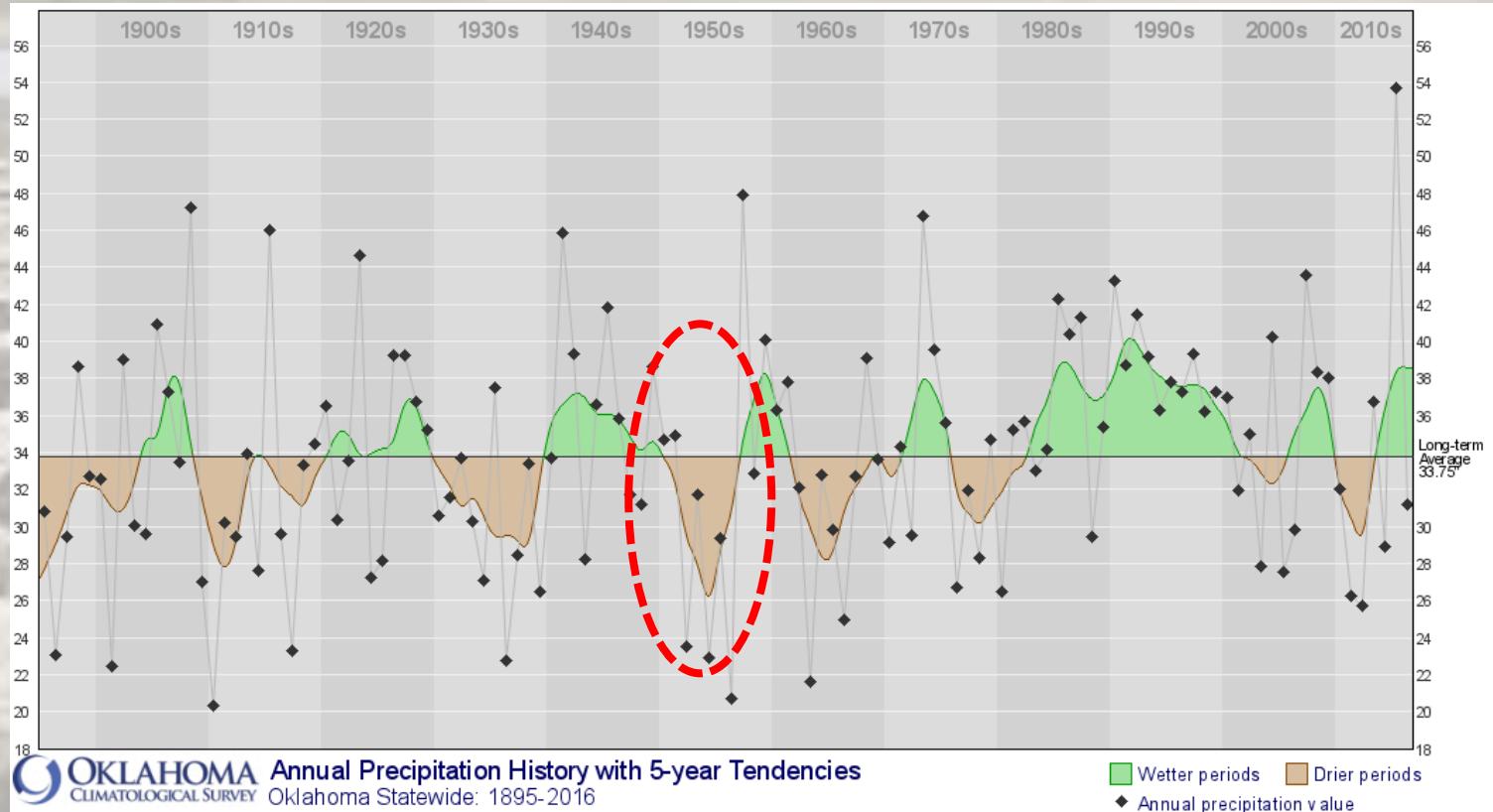
Expansion of N. Canadian Supply

Hefner 1947

- Recommended by 1939 master plan - also deemed groundwater as *uncertain*
- Reservoir and canal
- Construction began in 1937
- Halted during WWII when supplies and manpower were scarce



Drought of 1950s



- Severely impacted North Canadian River
- Lack of diversity in water supply apparent

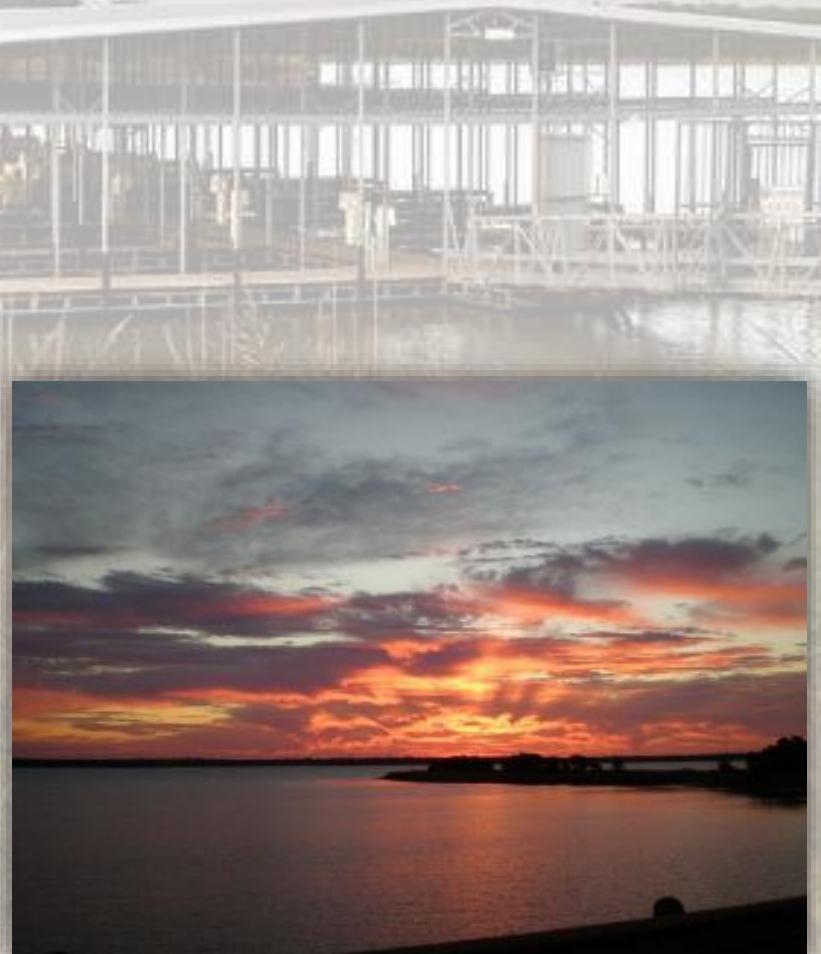
SE Oklahoma Supply System

Atoka 1959

- \$61 million project
- Constructed lakes at same time, 100 miles apart
- 324,000 citizens



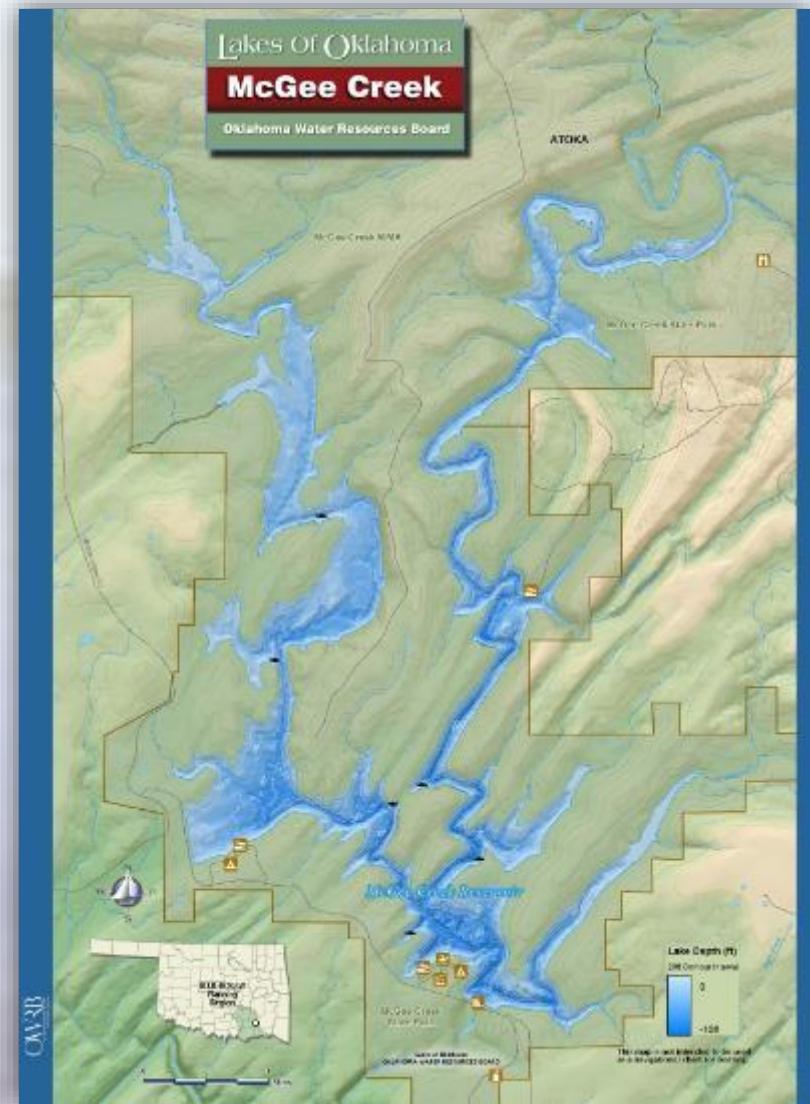
Draper 1963



Completion of Next SE Supply Phase

McGee Creek Reservoir 1988

- Built by Bureau of Reclamation
- Built for water supply to Oklahoma City and others



Improving N. Canadian Reliability

Canton Lake

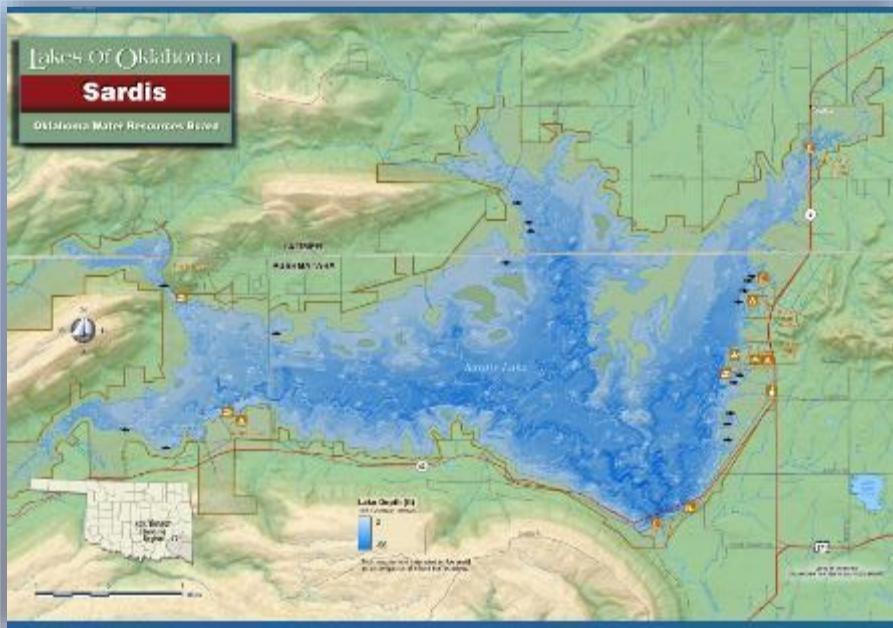
- Constructed by USACE 1948
- Storage rights purchased in 1991
- Enhances supply resiliency



Planned SE Supply Expansion

Sardis Lake

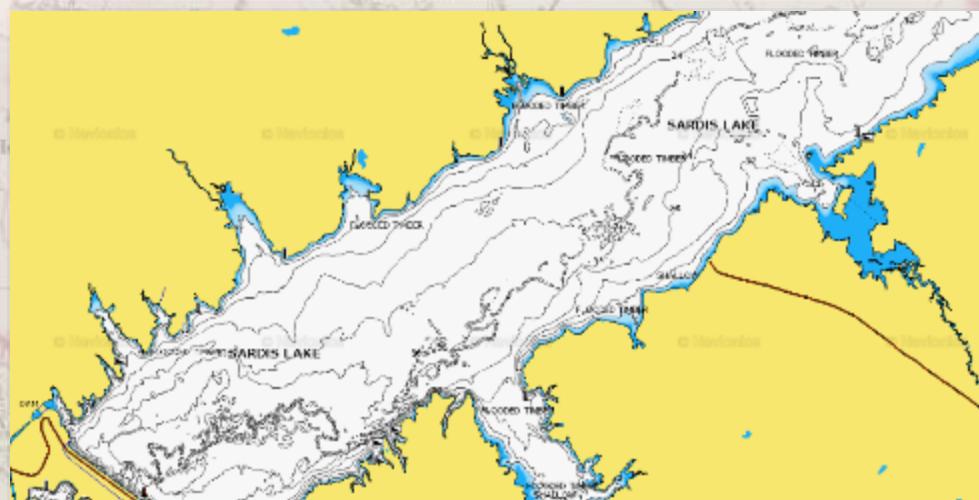
- Constructed by USACE 1983
- Purpose of flood control and water supply



OKC Purchase of
Storage Rights 2010

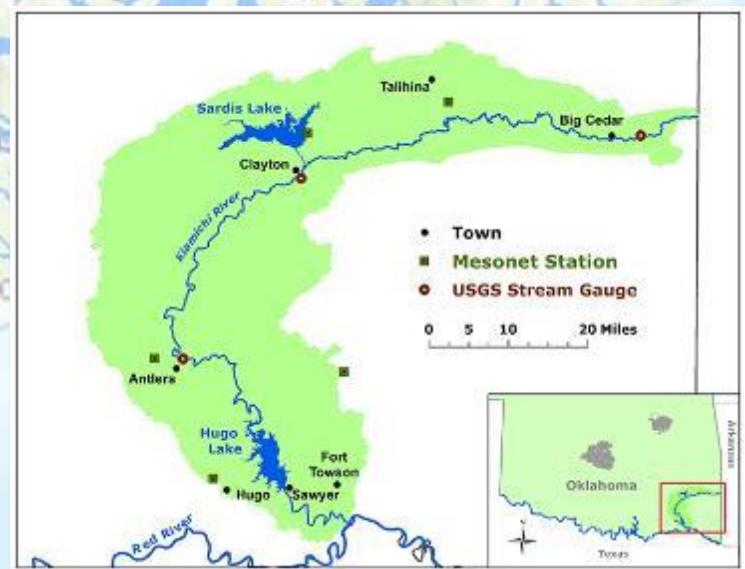
2011

- Lawsuit filed against City/State
- Choctaw and Chickasaw Nations files for water rights based upon 1830 tribal sovereignty treaty
- Water rights on tribal lands



Water Unity OK

- Agreement reached in 2016
- Legislation signed by President
- Protects existing water rights
- Set aside for future use
- Implements lake level management and minimum instream flow
- Reserves water for users along pipeline

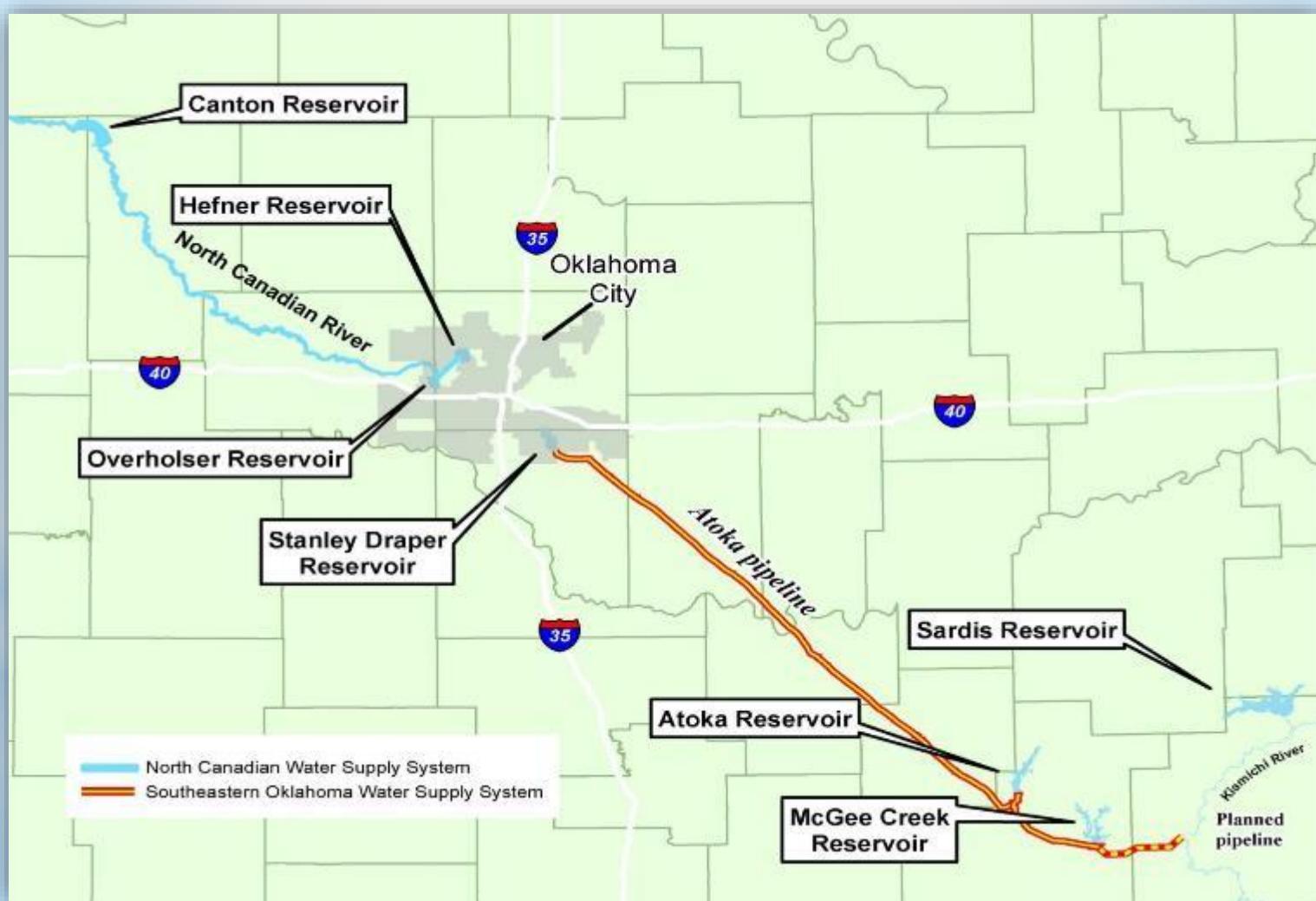


2nd Atoka Pipeline

- 72-Inch pipeline from Atoka to Draper
- Increases capacity to pump existing rights
- Provides capacity for future water
- +\$700 million program cost



Water Supply



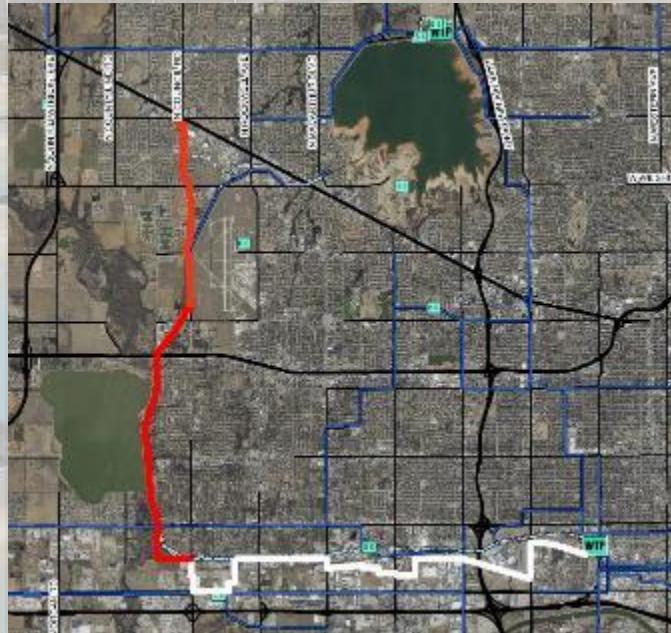
Future Kiamichi Supply System

- Water rights application pending
- New pipeline approximately 31 miles
- New intake structure and pump station
- +\$200 million program cost
- Completed around 2035



Hefner-Draper Interconnect

- Provide high quality, reliable, resilient water service
- Assure continuity of service to all of OKC
- Immediate outage response



Facility and Infrastructure

- Water treatment plant improvements
- Standby Generator
- Replacing aging water and sewer pipelines

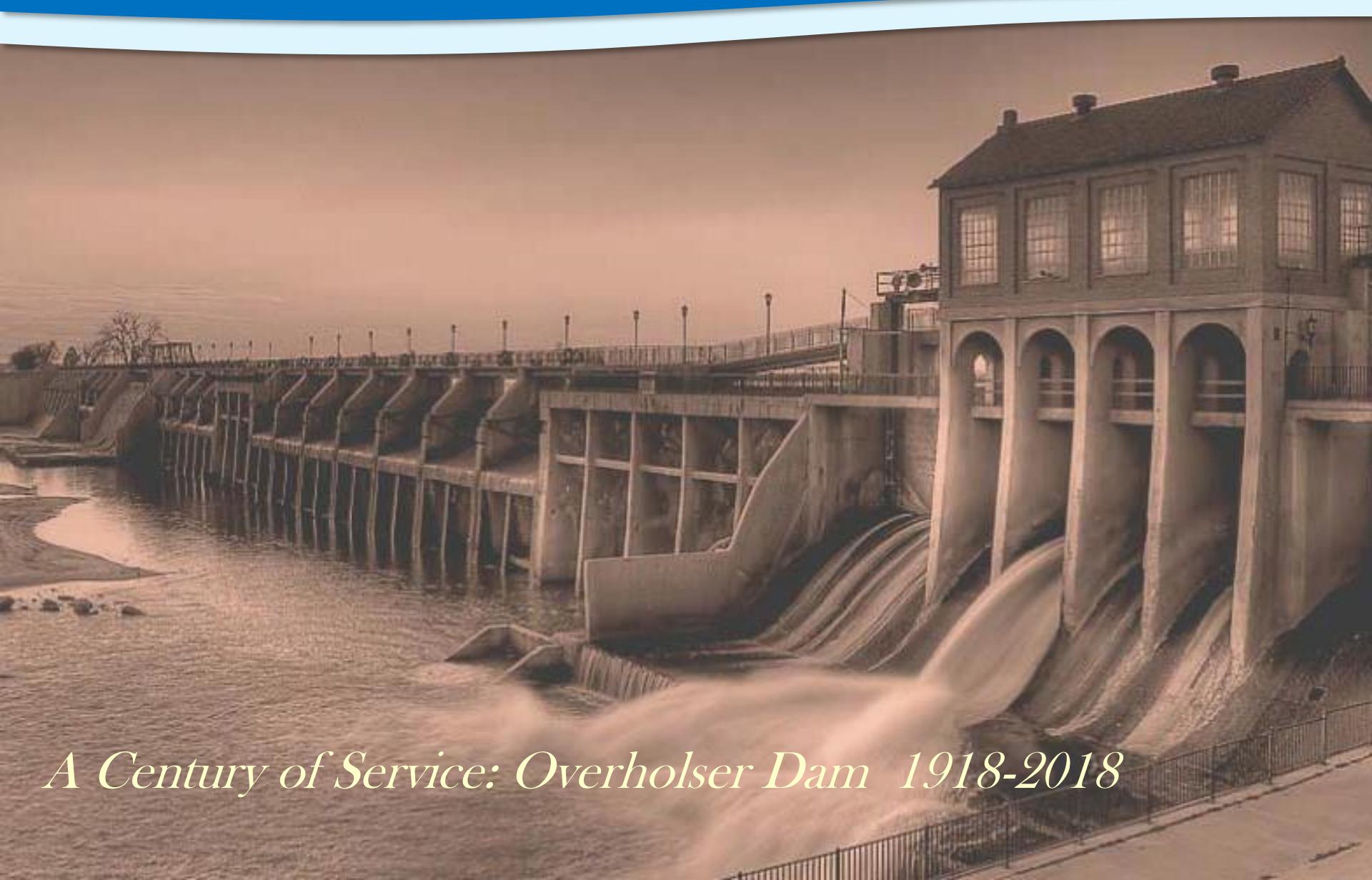


Condition Assessment

- Pressure Pipe System - 10 years
 - Draper 72"
 - Atoka Pipeline 60"
 - Critical Assets (large main and valves)
- Goal: Proactive management of aging infrastructure



Thank you!



A Century of Service: Overholser Dam 1918-2018