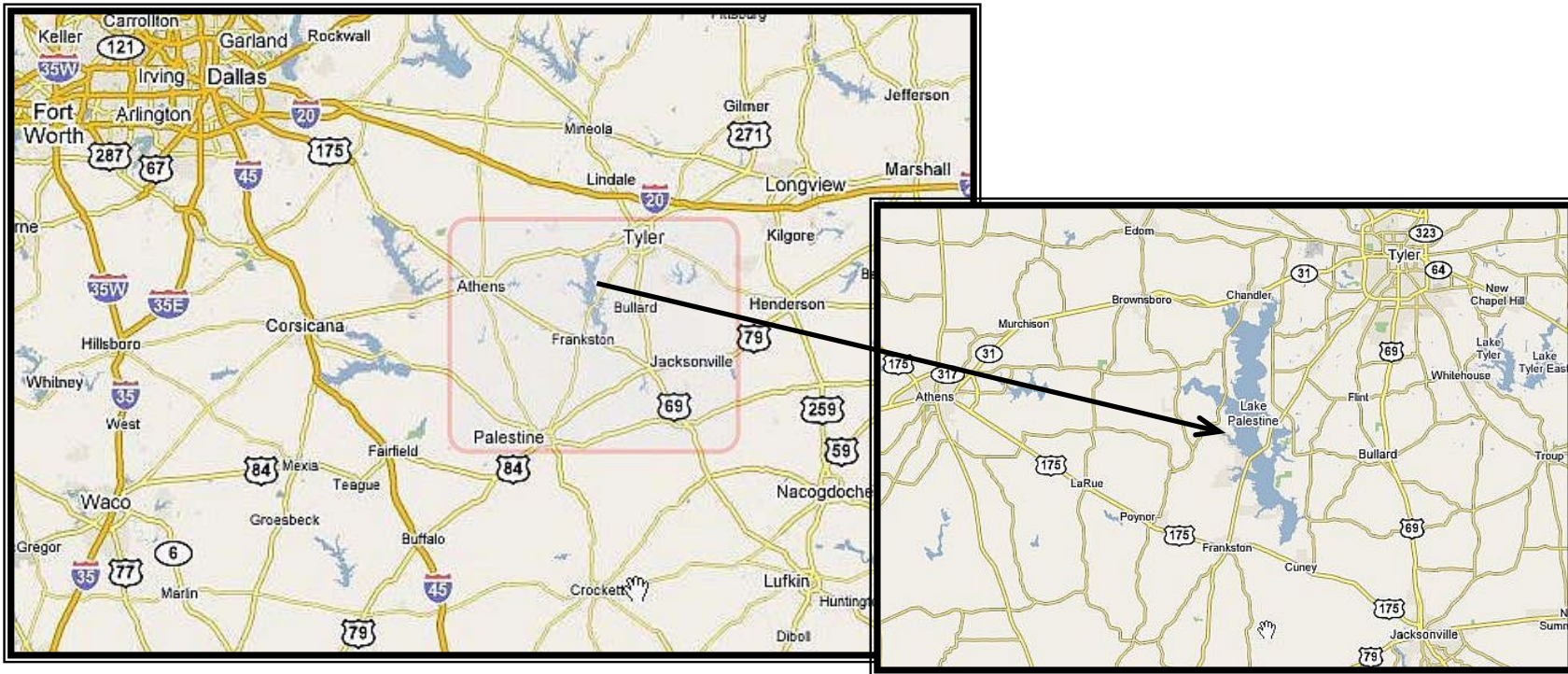


The Path to 2060:

The Lake Palestine Connection



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Purpose of Briefing

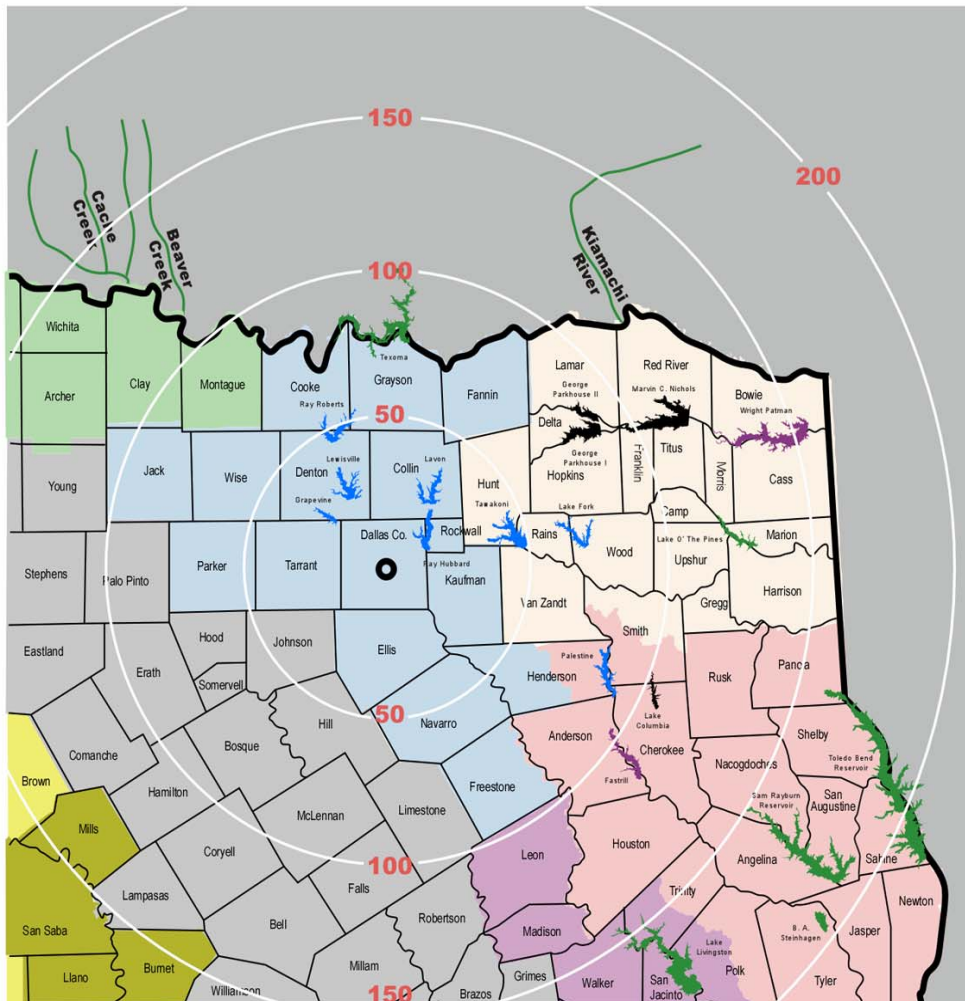
- Provide information on the background and connection of Lake Palestine
- Explain the possibility of partnering with the Tarrant Regional Water District (TRWD) to move Lake Palestine water to Dallas

Outline

- Background
- Tarrant Regional Water District
- Memorandum of Agreement
- Summary and Recommendation



Background



LAKES LEGEND

- Existing Dallas Reservoir (7)
- Proposed Dallas Reservoir (2)
 - 1 reservoir to be constructed
 - 1, an expansion of existing reservoir
- Alternate Dallas Strategy (7) (existing reservoirs)
- Alternate Dallas Strategy (4) (non-existing reservoirs)

Lake Palestine

- Dallas acquired the contractual rights for Lake Palestine in 1972
- Dallas' contractual right in Lake Palestine is for 102 MGD of water
- Our long range water supply plan currently calls for Lake Palestine to be connected to the City by 2015
- Lake Palestine is located approximately 85 miles southeast of Dallas
- Current plan to connect Lake Palestine consists of an ~85 mile pipeline to be connected to a proposed water treatment plant in southeast Dallas County

Regional Opportunities

- Establish mutually beneficial relationships
- Common goals for water supply and conveyance
 - Development cost
 - Capital cost
 - O & M cost
- Increase raw water system reliability
- Provide interim water supplies

Tarrant Regional Water District

Tarrant Regional Water District



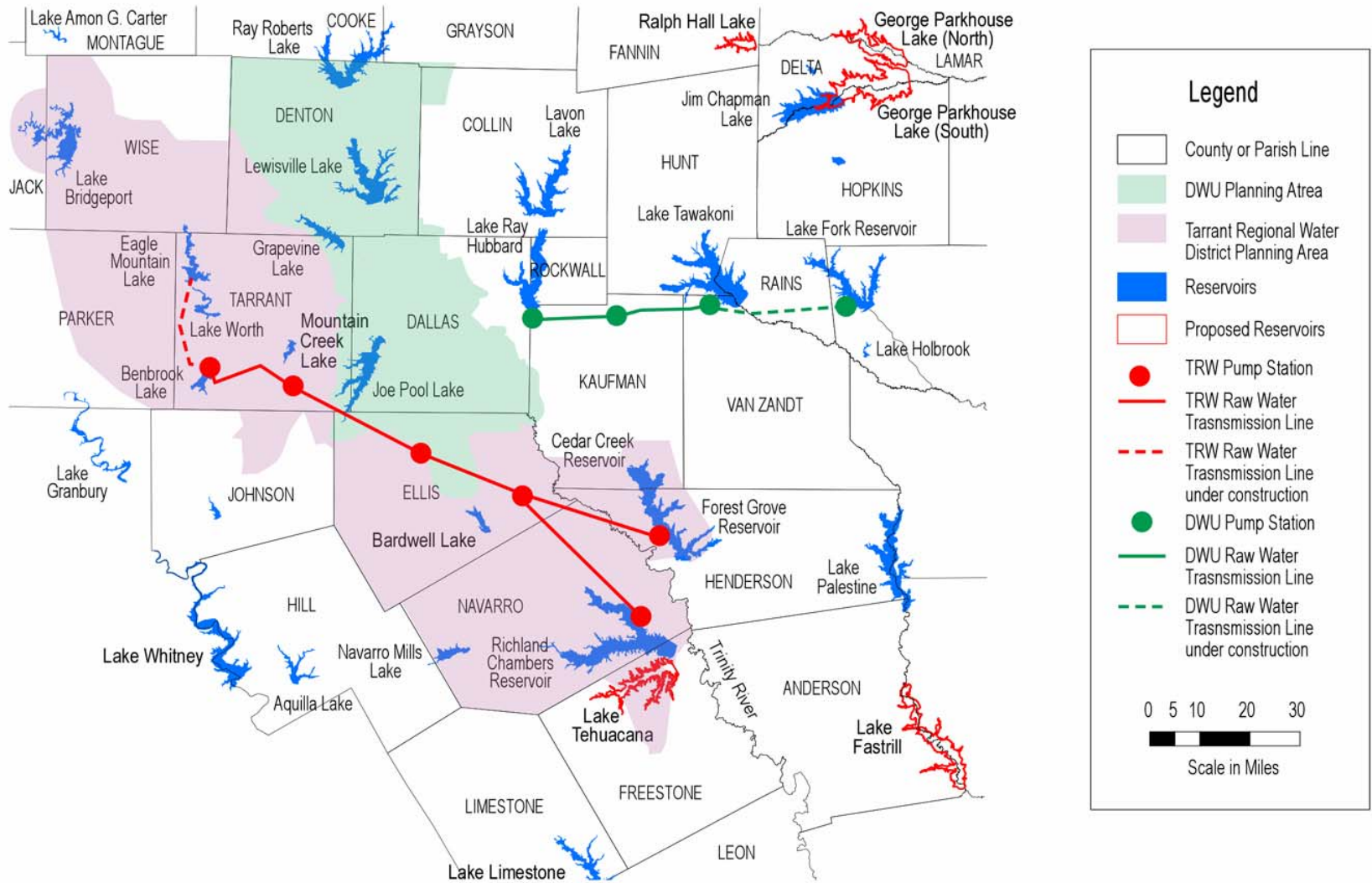
- Created in 1924
- Responsibilities: Raw water supply and flood control
- Service area spans all or part of 11 North Texas counties
 - Jack
 - Parker
 - Wise
 - Tarrant
 - Johnson
 - Denton
 - Ellis
 - Kaufman
 - Henderson
 - Freestone
 - Navarro
- Contracts with 65 cities including the cities of Fort Worth, Arlington, Mansfield and the Trinity River Authority
- Current service area population is 1.6 million
- Service area population projected to increase to 2.66 million by 2050

Tarrant Regional Water District



- Current supply of 447,000 acre-feet per year
 - Lake Bridgeport,
 - Eagle Mountain Lake,
 - Cedar Creek,
 - Richland-Chambers
 - Lake Benbrook
 - Lake Worth
 - Lake Arlington
- Connect or develop an additional 446,000 acre-feet per year by 2060
- Major Future TRWD Strategies - \$3.562 billion capital cost
 - Conservation
 - Reuse
 - Enhance Raw Water Transmission
 - Marvin Nichols I
 - Toledo Bend Reservoir
 - Oklahoma Water

TRWD and Dallas Water Supply Systems



Source: Tarrant Regional Water District and Dallas Water Utilities

TRWD provides water directly or indirectly into all or a portion of each of the 11 highlighted Counties

Memorandum of Agreement

Discussions with TRWD

- Staff has had discussions with TRWD regarding possible partnering options on moving water to Dallas
- TRWD has indicated a willingness to work with Dallas on areas that are of interest to and are mutually beneficial to both parties
- One of the initial discussions has centered on TRWD allowing Dallas to move its Lake Palestine water through Cedar Creek Reservoir
- Lake Palestine is also located approximately 32 miles east of Cedar Creek Reservoir, which is used by TRWD as a water supply reservoir

Cedar Creek Reservoir

- Cedar Creek Reservoir is currently connected via pipelines to Tarrant Regional Water District's (TRWD) water supply system
- TRWD currently has excess capacity in its existing Cedar Creek pipeline
- TRWD is scheduled to construct a parallel pipeline to add capacity from its Cedar Creek Reservoir and Richland Chambers Reservoir by 2015
- Routing Lake Palestine through Cedar Creek Reservoir reduces Dallas need for approximately 12 miles of pipeline and a booster pump station (an estimated savings of approximately \$50 million)

Memorandum of Agreement (MOA)

- Allows Dallas to share the cost of water transmission from distant sources
- Provides the framework for increasing the reliability of water supplies for Dallas
- Provides for the ability for Dallas to obtain interim and emergency water supplies
- Sets the stage and tone for future regional partnerships

Implementation of MOA

- Phase I – Feasibility Study for transporting Lake Palestine water through Cedar Creek Reservoir – Dallas share \$200,000 (50/50 cost share with TWRD)
- Report to City Council feasibility study results and make recommendations
- If additional joint water supply opportunities arise with TRWD, the MOA provides the framework to cooperate

Summary and Next Steps

Summary

- Entering into an MOA with TRWD provides Dallas:
 - Cost sharing opportunities of water transmission from distant sources
 - An increased reliability of water supplies for Dallas
 - Interim and emergency water supplies for Dallas if needed
 - Initial cost would be \$400,000
 - Includes Phase 1 – Feasibility Study
 - Dallas' share 50% (\$200,000)
 - If feasible Dallas cost savings are estimated to be approximately \$50 million

Next Steps

- MOA approval from Dallas City Council and TRWD Board of Directors
- Perform feasibility study
- Report to City Council feasibility study results and make recommendations
- Connect Lake Palestine to Dallas' system

Recommendation

- Authorize the City Manager to enter into an MOA with the TRWD to jointly:
 - Study the feasibility of raw water transmission facilities to deliver water from East Texas and other area existing and proposed reservoirs
 - Participate in the development, construction, and operation of infrastructure capable of delivering raw water supply to the Dallas/Fort Worth Metroplex