

Memorandum



CITY OF DALLAS

DATE March 22, 2013

TO Honorable Members of the Transportation and Environment Committee:
Linda L. Koop (Chair), Sheffie Kadane (Vice Chair), Sandy Greyson,
Delia Jasso, Vonciel Jones Hill, Pauline Medrano

SUBJECT **Long Range Water Supply Plan Progress**

Attached is a briefing that will be presented to the Transportation and Environment Committee on Monday, March 25, 2013. The briefing will provide an update on the Long Range Water Supply Plan progress, as well as details on the Sulphur River Basin Wide Study and Neches River Basin Feasibility Study agreements.

Please let me know if you need additional information.

Forest E. Turner
Assistant City Manager

Cc: The Honorable Mayor and Members of the City Council
Mary K. Suhm, City Manager
Thomas P. Perkins, Jr., City Attorney
Rosa A. Rios, City Secretary
Craig D. Kinton, City Auditor
Judge Daniel F. Solis, Administrative Judge
A.C. Gonzalez, First Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager

Ryan S. Evans, Assistant City Manager
Joey Zapata, Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Edward Scott, Director, Controller's Office
Frank Libro, Public Information Office
Rick Galceran, Director, Public Works
Stephanie Cooper, Assistant to the City Manager – Council Office

Long Range Water Supply Plan Progress

Dallas Water Utilities

March 25, 2013





Purpose

This briefing provides updates on:

- Dallas' Long Range Water Supply Plan (LRWSP) and water supply alternatives
 - Sulphur River Basin water supply options
 - Neches River run-of-the-river water rights

Outline

- ❑ Background
- ❑ Dallas' LRWSP – Update and Process
- ❑ Sulphur River Basin
- ❑ Neches River run-of-the-river
- ❑ LRWSP Project Timeline
- ❑ Summary
- ❑ Appendix
 - Current Water Status
 - Progress on IPL Project



Background

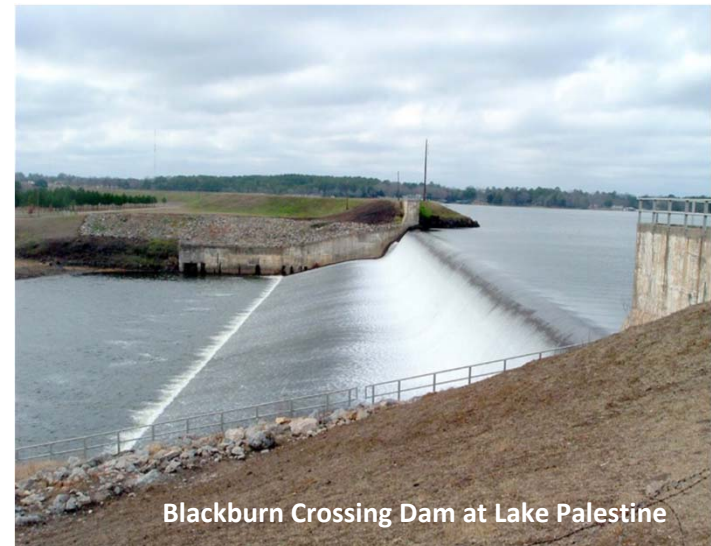


Dallas Water Planning Background

- ❑ Existing reservoirs were constructed as a result of planning actions from the 1950s
- ❑ Dallas initiated a series of long range water supply plans in 1959, 1979, 1990, 2000, and 2005
- ❑ After the 1996 drought, the State initiated regional planning with passage of Senate Bill 1, ensuring that the State has enough water for the next 50 years
 - Currently the State is in the fourth round of regional planning
 - Previous plans were prepared for 2002 and 2007, 2012
 - The fourth plan will be finalized in 2017

Implementation of Long Range Plans

- ❑ LRWSP last updated in 2005
- ❑ Components included:
 - Conservation strategic plan
 - Reuse plan
 - Connecting Dallas' existing reservoirs
 - Looking for additional water resources
 - Alternative strategies
- ❑ Multifaceted approach for water planning ensures Dallas citizens and customers have adequate and safe drinking water
- ❑ Additional water supply will be required to meet the needs of the City to the year 2070 and beyond



Existing Estimates for Dallas' Water Supply Sources

Current	Underway	Likely	At Some Risk	Total Need (MGD)
<ul style="list-style-type: none"> • Ray Roberts/Lewisville • Grapevine • Ray Hubbard • Tawakoni • Elm Fork of Trinity • Lake Fork 	<ul style="list-style-type: none"> • Lake Palestine - 2015 (100.00 MGD) • Conservation - various dates (47.40 MGD) • Direct Reuse - various dates (18.25 MGD) 	<ul style="list-style-type: none"> • Contract for Return Flows - various dates (71.02 MGD) • Ray Hubbard Indirect Reuse - permitted - 2012 (60.00 MGD) • Lewisville Indirect Reuse - permitted - 2022 (60.00 MGD) 	<ul style="list-style-type: none"> • Wright Patman Flood Pool - 2035 (100.00 MGD) • Fastrill - 2045 (100.00 MGD)¹ 	
483.90	165.65	191.02	200.00	1,040.57

- Our water supply in 2060 totals 1040.57 MGD
- Currently we have 483.90 MGD connected
- We are reasonably assured of an additional 165.65 MGD (underway)
- An additional 191.02 MGD is likely
- Wright Patman and the Lake Fastrill replacement project¹, totaling 200 MGD, are at some risk
- **The new LRWSP may identify more or less water needs for Dallas**

¹Lake Fastrill Replacement – Due to the creation of the Neches River National Wildlife Refuge on the Fastrill reservoir site, alternative strategies are being considered that include but are not limited to additional water conservation, Lake Texoma, Toledo Bend Reservoir, Lake 'O the Pines, Lake Livingston, groundwater, Marvin Nichols Reservoir, Lake Columbia, George Parkhouse Reservoir (North), George Parkhouse (South), Oklahoma water and Neches River Run-of-the-River.

Long Range Water Supply Plan



Current LRWSP Efforts

- September 26, 2012 - Council approved Contract for Long Range Water Supply Plan
- Update to LRWSP is currently underway
- Dallas' participation in detailed studies being considered by regional partners can be used to evaluate these water supply options
 - Sulphur River Basin Authority (SRBA) agreement for the Sulphur River Basin Wide Study
 - Upper Neches River Municipal Water Authority (UNRMWA) amendment to evaluate Neches River run-of-the-river water rights
- Recommendations will be included in the 2017 State Water Plan



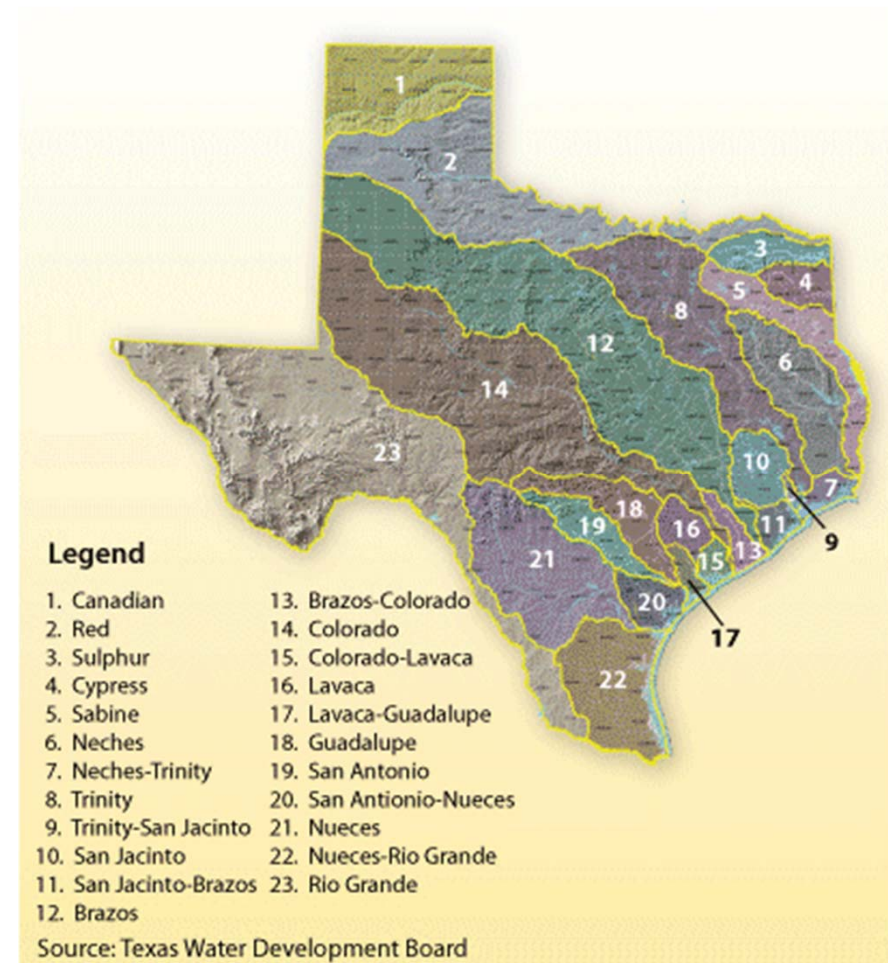
LRWSP Scope of Work Overview

- The major components of the study include:
 - Update population using 2010 Census data
 - Update water demand projections and the impact of water conservation programs
 - Compare alternative supply sources (surface water and groundwater)
- Leverage benefits of regional partnerships to develop more detailed data for the Sulphur River Basin and the Neches River Basin
- Recommend a plan of action that allows the City to provide for the needs of its customers to the year 2070

New Dallas Long Range Water Supply Plan

□ Water supplies to be reviewed include:

- Conservation
- Reuse
- Existing reservoirs
- Groundwater
- Off Channel Reservoirs
- Interstate Water
- Sulphur River Basin
- Neches River Basin
- Sabine River Basin
- Cypress River Basin
- Red River Basin



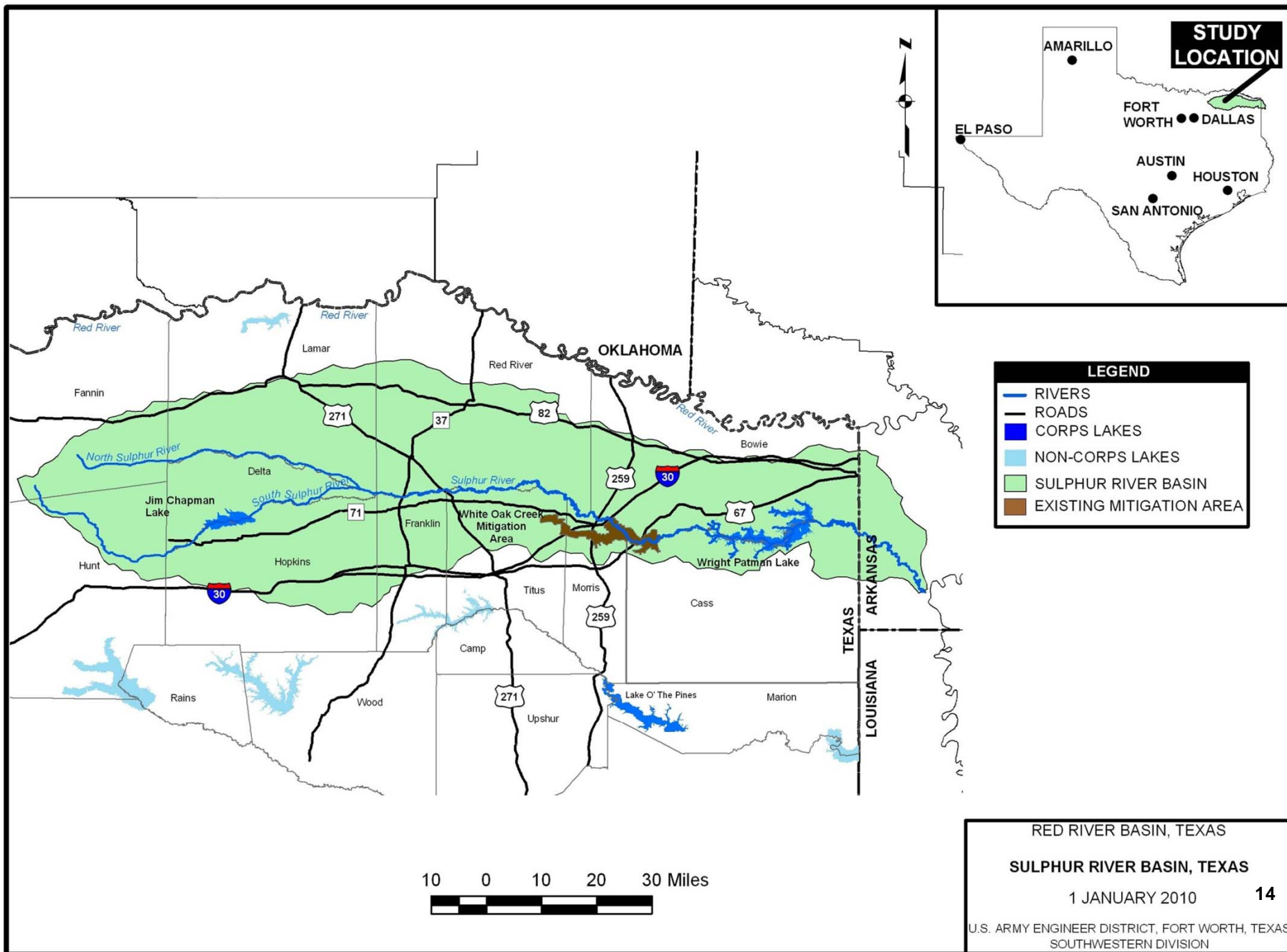
LRWSP Project Schedule

Description	Time Period
Data Collection	January – May 2013
Population and Demand	July 2013
Stakeholder/Public Meeting	July 2013
Strategy Evaluation	March 2013 - March 2014
Strategy Matrix	March 2014
Final Screening	March 2014 – August 2014
Stakeholder/Public Meeting	September – November 2014
Plan Development	August 2014 - November 2014
Recommended Water Management Strategy Approval	November 2014
Recommended Water Management Strategies to Region C	January 2015



Sulphur River Basin Wide Study

Regional Partnership -
Long Range Water Supply Plan





Dallas LRWSP – Sulphur River Basin

- In 2001 the Sulphur River Basin Authority (SRBA) signed contracts with the following Region C water providers to evaluate the Marvin Nichols Reservoir sites identified in the 2001 Region C Water Plan:
 - Tarrant Regional Water District (TRWD)
 - North Texas Municipal Water District (NTMWD)
 - Upper Trinity River Water District (UTRWD)
 - The City of Irving

- In 2005 the SRBA:
 - Entered into a cost share agreement with the U.S. Army Corps of Engineers (USACE) to perform the Sulphur River Basin Wide Study to evaluate potential water supply alternatives throughout the Sulphur River Basin, including Wright Patman
 - Renewed the 2001 contracts with Region C water providers incorporating the new Sulphur River Basin Wide Study scope of work

Dallas LRWSP – Sulphur River Basin

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- In 2005, the City Council adopted Resolution Number 05-1222 authorizing the City Manager to enter into necessary agreements for Dallas to participate in the Sulphur River Basin Wide Study
- Dallas was not able to enter into an agreement at that time
 - The funds authorized by the City Council were not used
- The Sulphur River Basin Wide Study is an authorized USACE study
 - To date there have been no appropriation for the USACE to do the study
 - USACE has contributed Planning Assistance to the States (PAS) funding for some study tasks
 - Region C water providers, TRWD, NTMWD, UTRWD and City of Irving, have been funding the local cost share

Dallas LRWSP – Sulphur River Basin

(continued)

- The SRBA agreement establishes:
 - Cost share and associated participation in water supply project(s)
 - Oversight committee to reviews goals, objectives, performance and progress of the water resources planning in the basin and program budgets
 - Any future water obtained in the Sulphur River Basin will be allocated 80% to the Metroplex and 20% to local entities in the Sulphur River Basin
 - Five year term with five year renewals by mutual consent
 - Schedule of Milestones
 - Principles for individual water supply projects

- Dallas' total share of costs to participate in the study over the next five years not to exceed \$1.8M:
 - Dallas' share of costs for actions and costs to become a participant in the study is \$1.032M
 - \$670,050 for Dallas' share of costs incurred prior to 2005
 - \$362,682 for additional costs and actions that have occurred since 2005
 - Dallas total share also includes:
 - Water resources planning engineering costs estimate of \$438K
 - Water resources planning administrative costs not to exceed \$66K per year.



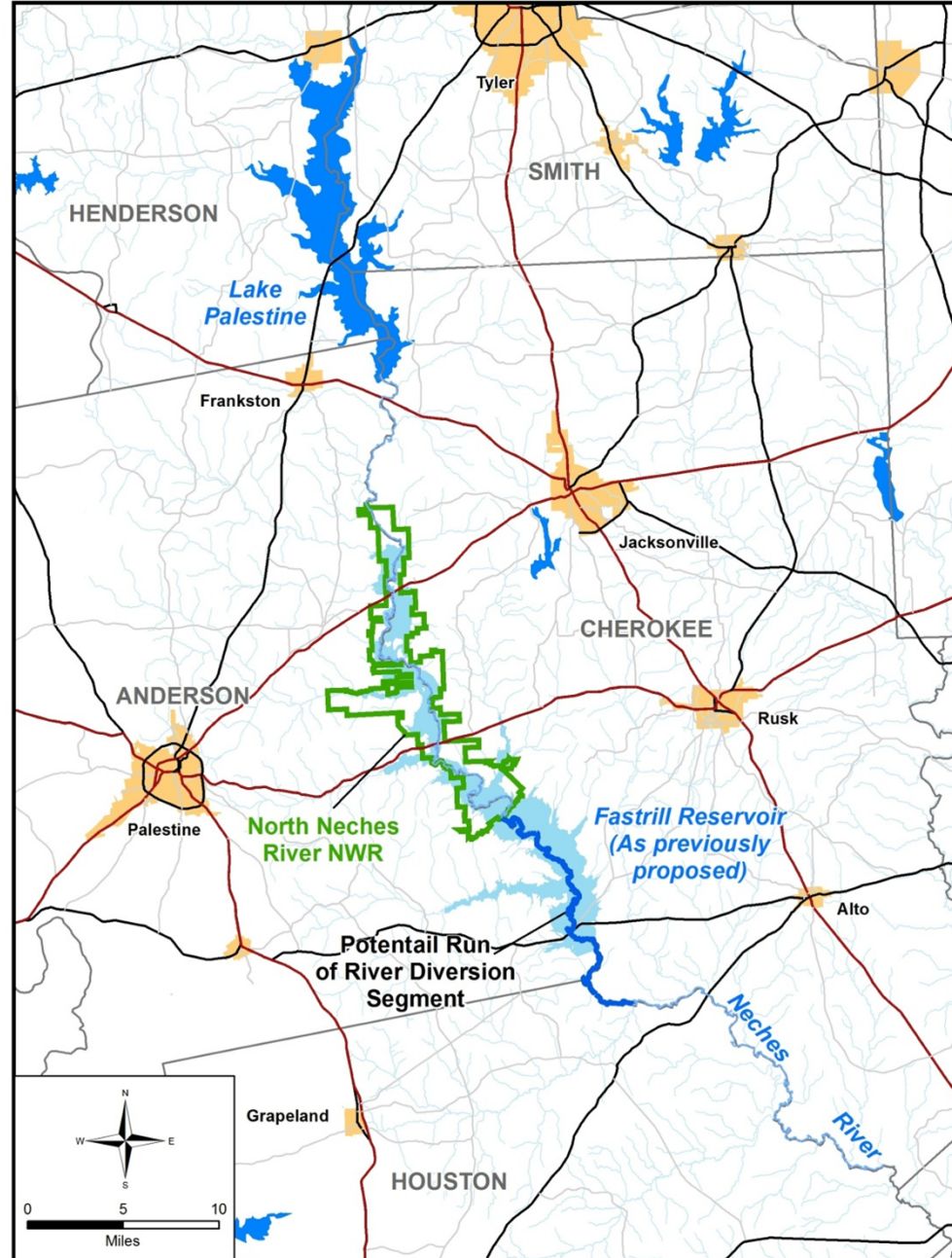
Dallas LRWSP – Sulphur River Basin

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- As a result of participating in the Study Dallas would receive:
 - Preferred options and permitting strategies for water availability from the Sulphur River Basin
 - Approximately 23.36% of any water available from project(s) in the Sulphur River Basin
 - Access to all detailed study data, including data developed prior to Dallas' participation in the Study, and
 - Water management strategies within the Sulphur River Basin for incorporation in the LRWSP

Neches River Basin Feasibility Study

Regional Partnership –
Long Range Water Supply Plan



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Dallas LRWSP – Neches River Basin

- In 2005 the City Council adopted Resolution Number 05-1223 authorizing the City Manager to enter into a contract with Upper Neches River Municipal Water Authority (UNRMWA) to:
 - Evaluate the feasibility of the Lake Fastrill project
 - Work with the U.S. Fish and Wildlife Service (USFWS) to determine if Lake Fastrill can meet the multiple objectives of water supply and wildlife preservation
 - October 2007 Council Resolution 07-3011 increased funding \$372,222 from \$228,000 to \$600,222
- In 2006 USFWS establishes Neches River National Wildlife Refuge on the Lake Fastrill site
- In 2007 Dallas and TWDB filed actions in two US District Courts against USFWS and US Dept. of Interior
- In 2008 District Court affirmed USFWS and Dallas and the TWDB filed appeals
- In 2009 the Fifth Circuit affirmed the District Courts decision
- In 2010 the U.S. Supreme Court declined to hear the Fastrill case cementing the Wildlife refuge

Dallas LRWSP – Neches River Basin

(continued)

- The UNRMWA agreement establishes:
 - The feasibility study scope of work
 - The cost of water to be actual water supply project costs plus operation and maintenance costs
 - Water obtained in the project will be allocated 80% to Dallas and 20% UNRMWA
 - Upon completion of Feasibility Study, future Council action will be needed to providing funding for design and construction
 - Dallas share of the Study costs not to exceed \$300K
- As a result of participating in the Study Dallas would receive:
 - 80% of any water developed from the project
 - Access to all detailed study data providing pivotal information for incorporation into Dallas' LRWSP evaluation of potential water supply options

Summary



Summary

- ❑ LRWSP will identify Dallas' water needs to the year 2070 using 2010 population numbers and demand forecast
- ❑ Will update both water supply and infrastructure needs, and incorporate results from the Sulphur River and Neches River Basin studies
- ❑ Will seek most efficient and economical methods for additional water supply
- ❑ Will include stakeholder meetings and input
- ❑ New demands will be incorporated into the Region C and 2017 State Water Plan
- ❑ Will guide Dallas' future decisions regarding water strategies and alternates

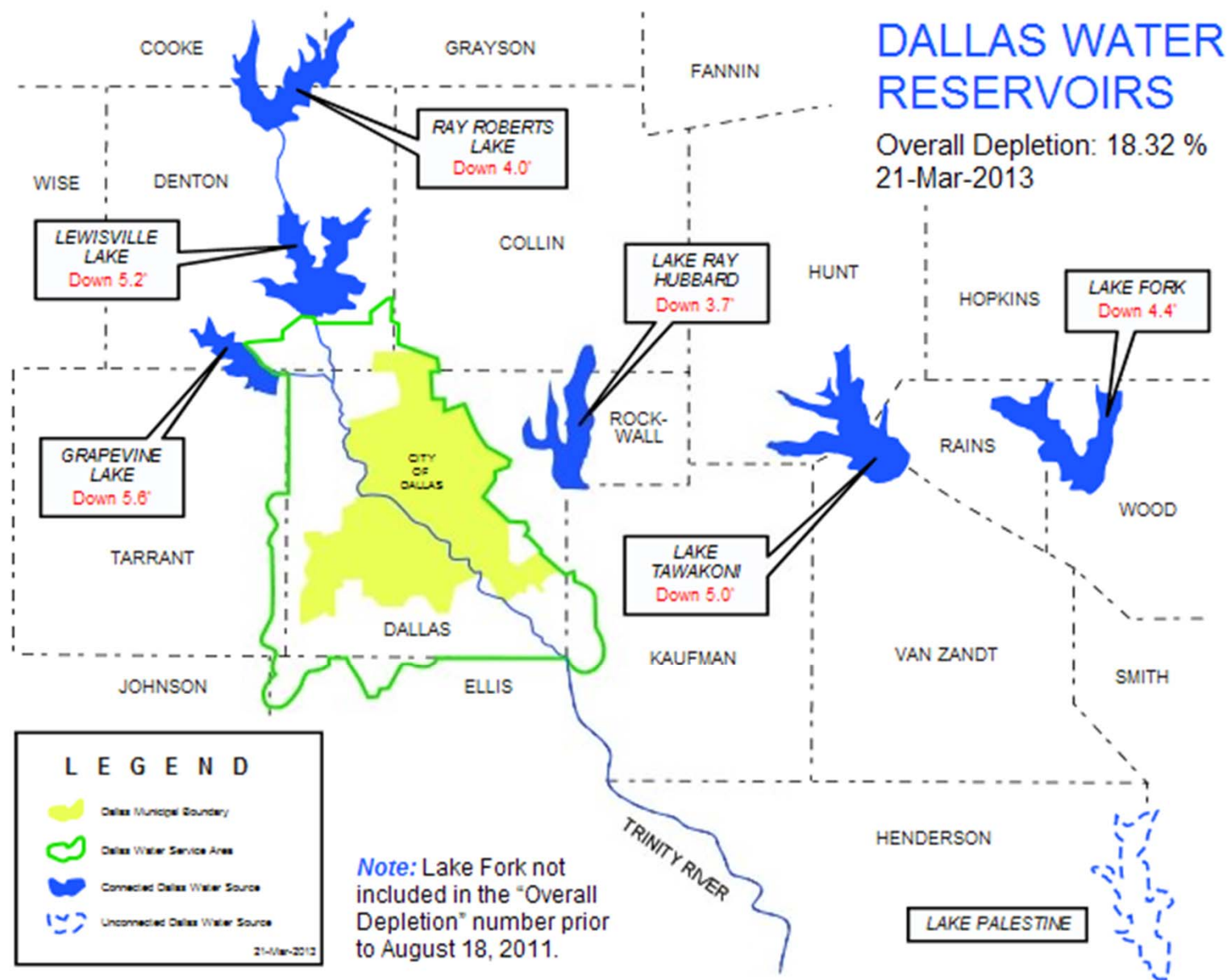


Summary

- Requesting Committee recommendation for Council approval of the following April 10, 2013 agenda items:
 - Sulphur River Basin Authority Cost Share agreement not to exceed \$1.8 million over the next 5 years to evaluate water supply options within the Sulphur River Basin
 - Upper Neches River Municipal Water Authority Funding Agreement not to exceed \$300,000

Appendix

Current Water Supply Status





Current Water Supply Status

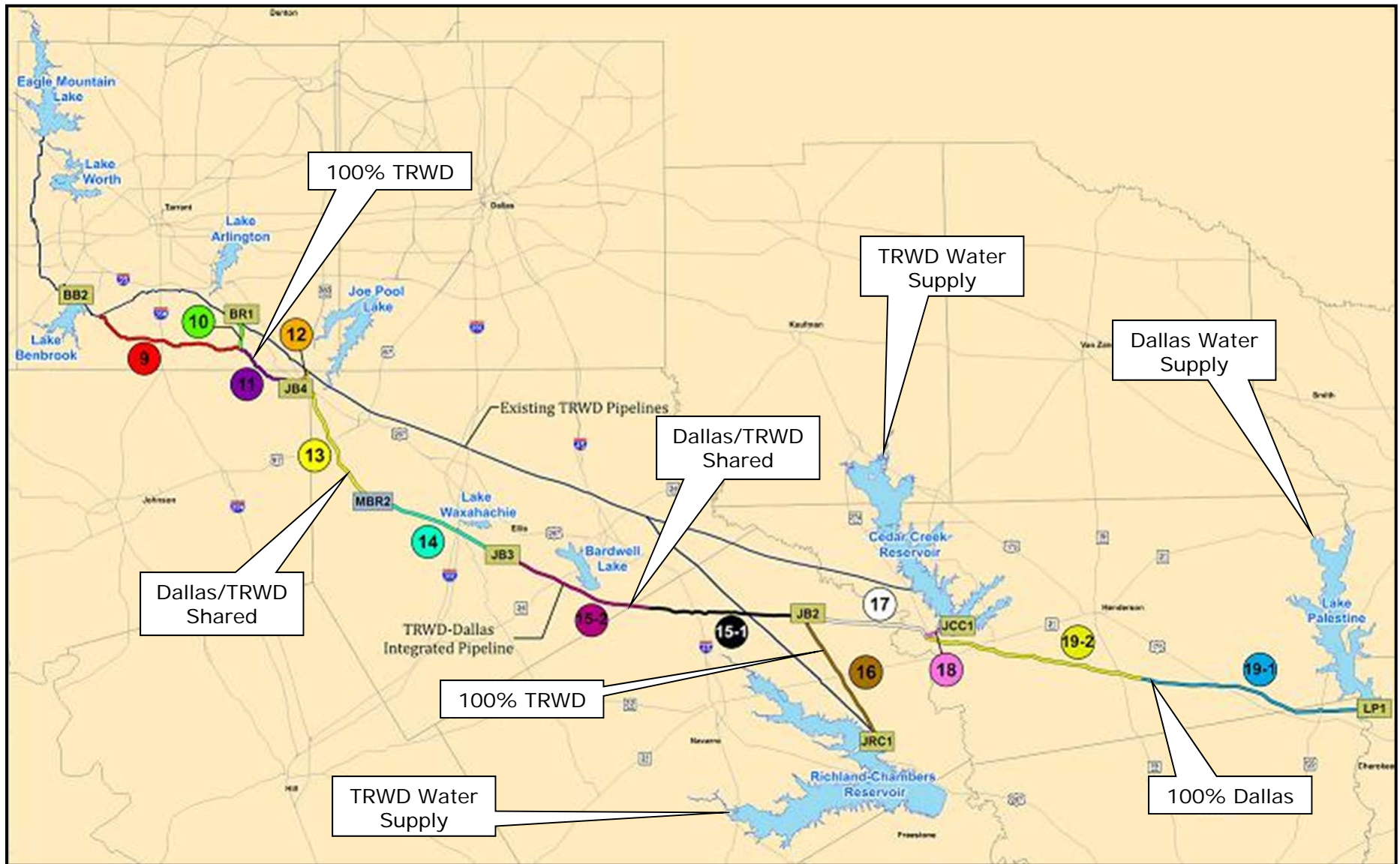
- The Current drought began in May 2010
- As of March 21, 2013 Dallas' total connected water supplies are approximately 18.32% depleted (34 months later)
- In early December 2011 we were approximately 26.44% depleted
- If conditions persist Stage 1 (i.e., 35% depleted) may occur in late Summer 2013 (under current Drought Contingency Plan)



Integrated Pipeline (IPL) Project Update

Tarrant Regional Water District and City of
Dallas

TRWD-Dallas Integrated Pipeline (IPL) Project



IPL Progress

- Design work 32% complete
- Construction scheduled to start December 2013
- MWBE goals of 25% have been met for Project Engineering
- DWU bonds for IPL project
 - First sale in 2012 for \$132M
 - Savings from 3.48% interest rate resulted in a 1.5% reduction in proposed FY13 retail rate increase
 - 2014 Series estimated to be \$230M
 - Series 2014 bond sale included in proposed budget for Fiscal Year 2013-14

