



NORTH
TEXAS
MUNICIPAL
WATER
DISTRICT

Regional Service Through Unity... Meeting our Region's Needs Today and Tomorrow



Lake Operations Center

WATER COMMITTEE MEETING

April 21, 2021 (Via Teleconference)



AGENDA

ACTION ITEMS

- A. Consider approval of Water Committee meeting minutes – March 24, 2021
- B. Authorize award of construction contract and internal inspection services on Wylie Water Treatment Plant II Sedimentation Basin Trough Improvements project – Administrative Memorandum No. 5712
- C. Authorize award of construction contract and internal inspection services on Wylie Water Treatment Plant I Washwater Supply System Improvements project – Administrative Memorandum No. 5713
- D. Authorize additional engineering services on Texoma Fiber Optic Improvements project – Administrative Memorandum No. 5715

DISCUSSION ITEMS

- A. Discuss requests from public water suppliers to become new wholesale water customers of NTMWD
- B. Discuss Texas Commission on Environmental Quality requirement to supply 0.6 gallons per minute of water for each customer connection supplied by public water systems
- C. Discuss plan to make use of Lake Texoma water in the future
- D. Discussion on roadway rights of way expansions and encroachment into NTMWD easements and other utility installations in roadway rights of way and easements in close proximity to NTMWD infrastructure
- E. Opportunity for Committee members to provide feedback on Water Committee meeting
- F. Opportunity for Committee members to request potential future agenda items
(No substantive discussion of items will take place at this time)



AGENDA

Opening Remarks

- A. Chairman/Interim Executive Director/Committee Champion Status Report concerning legislation and regulatory matters, budgets, current projects and ongoing programs of the District including the Regional Water System, Watershed Protection, and Water Conservation



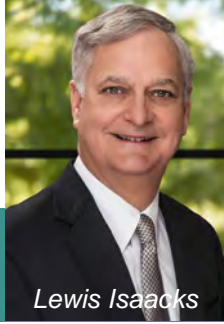
AGENDA

Action Items

- A. **Consider approval of Water Committee meeting minutes –
March 24, 2021**

Recommend approval of Water Committee meeting minutes

Executive Session



EXECUTIVE SESSION

Section 551.071, Consultation with Attorney

- Authorizes a government body to consult with its attorney in an Executive Session to seek advice on legal matters regarding pending or contemplated litigation or a settlement offer.
- A government body may not invoke this Section to convene a closed session and then discuss matters outside of that provision.
- General discussion of policy, unrelated to legal matters, is not permitted under the language merely because an attorney is present.
- Items discussed during consultation with the District's attorney are privileged and should remain confidential.



AGENDA

Discussion Items

- D. Discussion on roadway rights of way expansions and encroachment into NTMWD easements and other utility installations in roadway rights of way and easements in close proximity to NTMWD infrastructure**

Adjourn Executive Session



AGENDA

Action Items

B. Authorize award of construction contract and internal inspection services on Wylie Water Treatment Plant II Sedimentation Basin Trough Improvements project – Administrative Memorandum No. 5712

- Consider recommendation on authorizing award of construction contract to Schofield Civil Construction, LLC, in the amount of \$2,603,000 on Project No. 101-0568-20, Wylie Water Treatment Plant II Sedimentation Basin Trough Improvements, and authorizing internal inspection services in the amount of \$38,250

What: Award a construction contract and authorize internal inspection services.

Why: The WTP II Sedimentation Basin discharge overflow troughs have been found to have advanced corrosion on many parts of the normally submerged surfaces. This active deterioration due to normal service and exposure continues to result in leaks in the troughs and has compromised the metal to the point that patchwork repairs are no longer feasible.



SEDIMENTATION BASIN TROUGH IMPROVEMENTS

- Sedimentation Basin overflow rate is a key process design parameter
- Leaking overflow troughs and weirs create short-circuiting of flow
- Steel troughs are susceptible to deterioration and compromise
- Welded spot repairs are often employed, when viable
- Many troughs have reached the end of useful life; others are approaching



Wylie WTP II Sedimentation Basin Troughs Improvements
Project No. 101-0568-20
Administrative Memorandum No. 5712





SEDIMENTATION BASIN TROUGH IMPROVEMENTS

- Troughs in Basins 1, 5, 6, 8 should be addressed immediately
- Planned repair/replacement allows reduced impact to treatment process
- Additional Phases for future implementation
- Engineer's last OPCC for current phase was \$3,180,000

Bidder	Bid Amount
Schofield Civil Construction	\$2,603,000
MIINC, L.P.	\$2,943,619
Crescent Constructors	\$2,977,000
Archer Western Construction	\$3,197,000
Engineer's OPCC	\$3,180,000



SEDIMENTATION BASIN TROUGH IMPROVEMENTS

Schofield Construction

- Currently contracted for Wylie WTP IV Filter 4 Repair
- Several similar-sized efforts in the water/wastewater sector
- Demonstrated experience in rehab and replacement tasks



RECOMMENDATION

The Interim Executive Director, NTMWD staff, and AG&E Associates recommend the Board of Directors authorize the award of a contract as follows:

Contractor: Schofield Civil Construction, LLC

Scope: Construction

Project: No. 101-0568-20, Wylie Water Treatment Plant II Sedimentation Basin Trough Improvements

**Amount: Construction Contract: \$2,603,000
Internal Inspection Services: \$ 38,250**



AGENDA

Action Items

C. Authorize award of construction contract and internal inspection services on Wylie Water Treatment Plant I Washwater Supply System Improvements project – Administrative Memorandum No. 5713

- Consider recommendation on authorizing award of construction contract to Schofield Civil Construction, LLC, in the amount of \$6,128,875 on Project No. 101-0511-18, Wylie Water Treatment Plant I Washwater Supply System Improvements, and authorizing internal inspection services in the amount of \$209,000

What: Award a construction contract and authorize internal inspection services

Why: Replace the existing aged elevated storage tank with a larger elevated tank and modernized pumping and process control. This will allow operational flexibility in management of filter backwash supply to maximize the WTP I filtration process capacity.



WASHWATER SUPPLY SYSTEM IMPROVEMENTS

- Elevated steel tank supplies filter backwash water (200,000 gallons)
- It is undersized for current needs and has been abandoned due to condition issues
- Larger tank (500,000 gallons) will allow more efficient cycling and avoid short-term process constraints
- Improvements include properly-sized refill pumps and associated chemical storage and feed system



New WTP I Washwater Supply Tank & De-Chlorination Facility

Existing WTP I Washwater Supply Tank

HSPS 1-1



Wylie Water Treatment Plant (WTP) I
Washwater Supply Tanks Improvements
Project No. 101-0511-18
Administrative Memorandum No. 5713





WASHWATER SUPPLY SYSTEM IMPROVEMENTS

Bidders	Bid Amount
Schofield Civil Construction	\$6,128,875
Felix Construction Company	\$6,315,430
Heritage Constructors	\$6,902,446
Engineer's OPCC	\$5,500,000

- Schofield is recommended as lowest responsive bidder
- Much of the direct work would be performed by specialty tank constructor, as subcontract to Schofield
- Other significant subcontracting is electrical and I&C



WASHWATER SUPPLY SYSTEM IMPROVEMENTS

- Low bid is 11 percent above latest Engineer's OPCC
- This is not a significant variation in terms of industry standards
- Notable cost factors:
 - Current volatility of steel and electrical-related materials and labor
 - Late necessary addition of concrete repair in pump suction well
 - Work in pump suction well adds complexities of confined space entry and coordination impacts with on-going treatment process



RECOMMENDATION

The Interim Executive Director, NTMWD staff, and Freese and Nichols, Inc., recommend the Board of Directors authorize the award of a contract as follows:

Contractor: Schofield Civil Construction, LLC

Scope: Construction

Project: No. 101-0511-18, Wylie Water Treatment Plant I Washwater Supply System Improvements

**Amount: Construction Contract: \$6,128,875
Internal Inspection Services: \$ 209,000**



AGENDA

Action Items

D. Authorize additional engineering services on Texoma Fiber Optic Improvements project – Administrative Memorandum No. 5715

- Consider recommendation on authorizing additional engineering services with Gupta & Associates, Inc., in the amount of \$251,100 on Project No. 101-0558-20, Texoma Fiber Optic Improvements

What: Authorize additional engineering and surveying services for the final design effort

Why: Ongoing development around the Texoma Raw Water pipeline corridor has created several areas of anticipated limitation or conflict with the current best proposed path for fiber optic cabling in parallel with the raw water pipeline. Various locations have been identified as requiring additional field investigation and design to mitigate impact to adjacent properties and utilities.



ADDITIONAL DESIGN AND SURVEYING SERVICES

- Monitoring and control for remote facilities at Texoma Raw Water Pump Station are currently via cellular or radio signals
- Extension of fiber optic cable path from Howe Balancing Reservoir site to Texoma will complete fiber communications between Wylie and Texoma
- Fiber installation will parallel the current 72-inch Raw Water Pipeline
- Conflicts and variances with the existing pipeline ROW indicate different installation methods are needed in some areas
- Additional Services are for:
 - survey verification
 - redesign of certain locations
 - addition of communications connections at Sherman WTP and Panda Power Plant



Texoma Fiber Optic Improvements, Additional Services
 Project No. 101-0558-20
 Administrative Memorandum No. 5715





RECOMMENDATION

The Interim Executive Director and NTMWD staff recommend the Board of Directors authorize additional services as follows:

Consultant: Gupta & Associates, Inc.

Scope: Additional Services, Final Engineering Design

Project: No. 101-0558-20, Texoma Fiber Optic Improvements

Amount: \$251,100



AGENDA

Discussion Items

- A. Discuss requests from public water suppliers to become new wholesale water customers of NTMWD**



NEW CUSTOMERS

Background:

- 2005: District concerned about raw water supply to meet Current Member and Customer demands until next water supply secured.
- Board provided Formal Guidance in 2016 (AM 4740) of not considering new Membership until Bois d'Arc lake is complete
- Guidance of Board for new Customers request;
 - Every request for new customer requires procurement of new Raw Water
 - No new customers unless water rights provided to the District
 - Indirect Customer become Direct customer if;
 - Consent of existing Wholesale provider (Member or Customer)
 - Transfer of annual Minimums
 - Capacity of existing treated Water Transmission system
 - » Customer cover cost of new delivery point



NEW CUSTOMERS

Background:

- New Customers added since 2004
 - Terrell 2004 (Transferred SRA water to District)
 - GTUA 2004 (Transferred Texoma water to District)
 - Able Springs 2012 (Transferred SRA water to District)
- Indirect Customers added as Direct Customers.
 - Little Elm 2000 (Former customer of Frisco)
 - BHP 2014 (Former customer of Royse City)



NEW CUSTOMERS



NORTH TEXAS MUNICIPAL WATER DISTRICT

505 E. Brown Street • P.O. Box 2408 • Wylie, Texas 75098 • 972-442-5405

Customer Requests:

- **Formal Request Process**

- Formal Letter of Request for service
- Water Service request requirements (provided by NTMWD)
- Water Service Request worksheet (population/Demands 30 years)
- In Region C Planning service area
- Existing Treated Water Transmission system Capacity
 - New Minimum calculated for Capacity replacement cost
 - New Customer cover all cost for new Delivery Point

- **Staff Planned to bring all customer requests to Board Summer 2021 as we approach Bois d'Arc Lake completion in 2022.**

REQUIREMENTS FOR REQUEST FOR NEW OR ADDITIONAL DELIVERY POINTS OR INCREASE IN TAP OR METER SIZE

The Requestor must make a formal written request for a new Delivery Point or for additional volume at an existing Delivery Point. A sample form listing some of the required parameters is attached.

1. The Request must include the following:

- A preliminary plan showing the proposed location for the new Delivery Point. For a request for additional volume to an existing Delivery Point, the sketch is not necessary.
- For Each Delivery Point, the Annual Usage (Average Day Usage x 365), and Projected Maximum Day Usage must be provided for each of the following years:
 - Each year of the first six (6) years,
 - Every five (5) years through year 20.



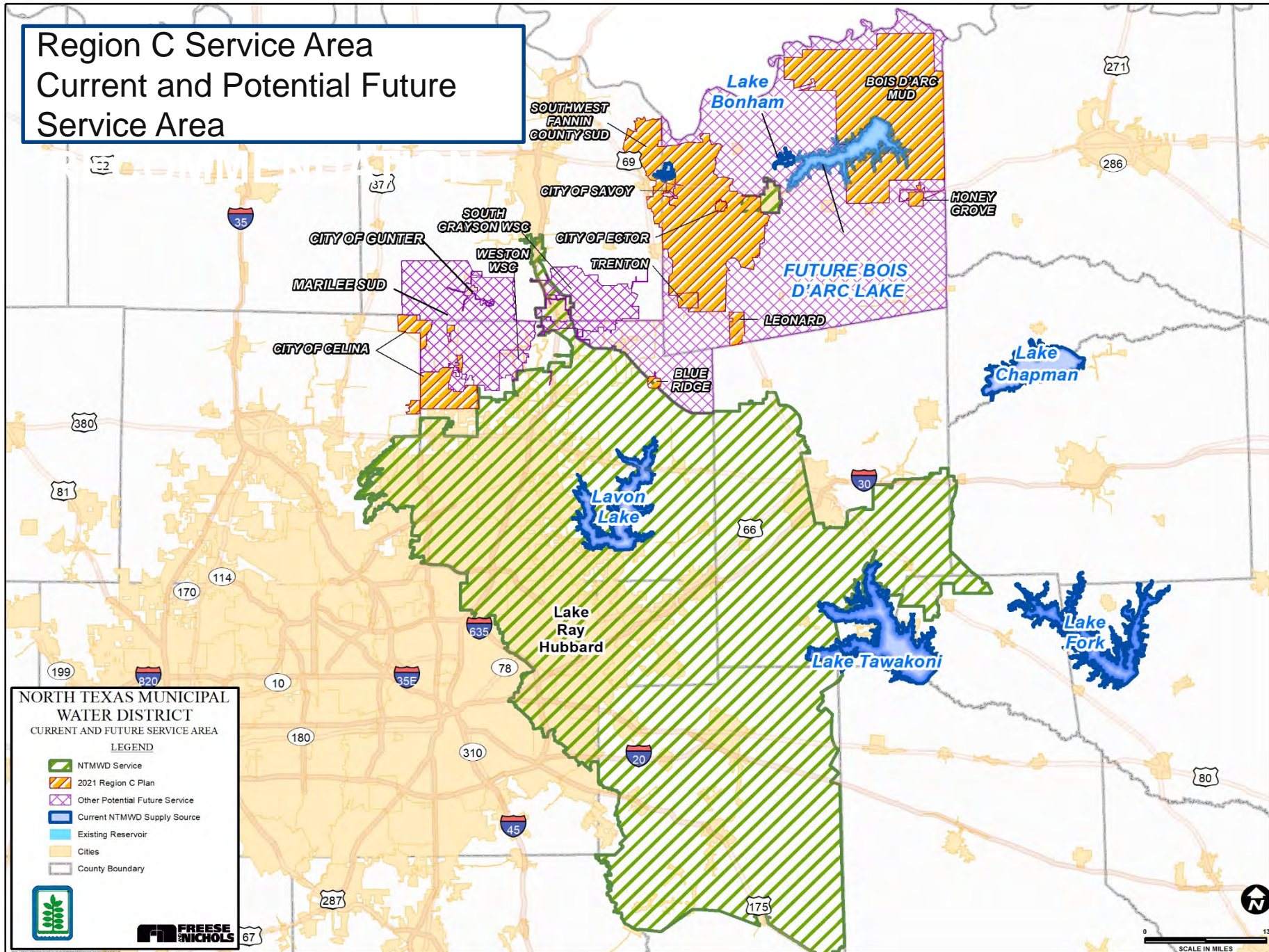
NEW CUSTOMERS

Customer Requests as of Jan 2021





- **Indirect Customers pending to become Direct Customers**
 - Blackland WSC 2016 (Currently Indirect Customer - Rockwall)**
 - RCH WSC 2015 (Currently Indirect Customer - Rockwall)**
 - High Point 2005, 2011, 2020
(Currently Indirect Customer – Forney and Terrell)
- **New Customer Requests:**
 - City of Celina 2018 (Currently customer of UTRWD)
 - City of Weston 2019 (Currently on well water)
- **Informal Meetings, no formal request letter to date.**
 - City of Blue Ridge
 - Trenton (Fannin County)

** Rockwall has given (consent; no objections to become direct customers of NTMWD)

Region C Service Area Current and Potential Future Service Area



**NORTH TEXAS MUNICIPAL
WATER DISTRICT**
CURRENT AND FUTURE SERVICE AREA
LEGEND

-  NTMWD Service
-  2021 Region C Plan
-  Other Potential Future Service
-  Current NTMWD Supply Source
-  Existing Reservoir
-  Cities
-  County Boundary



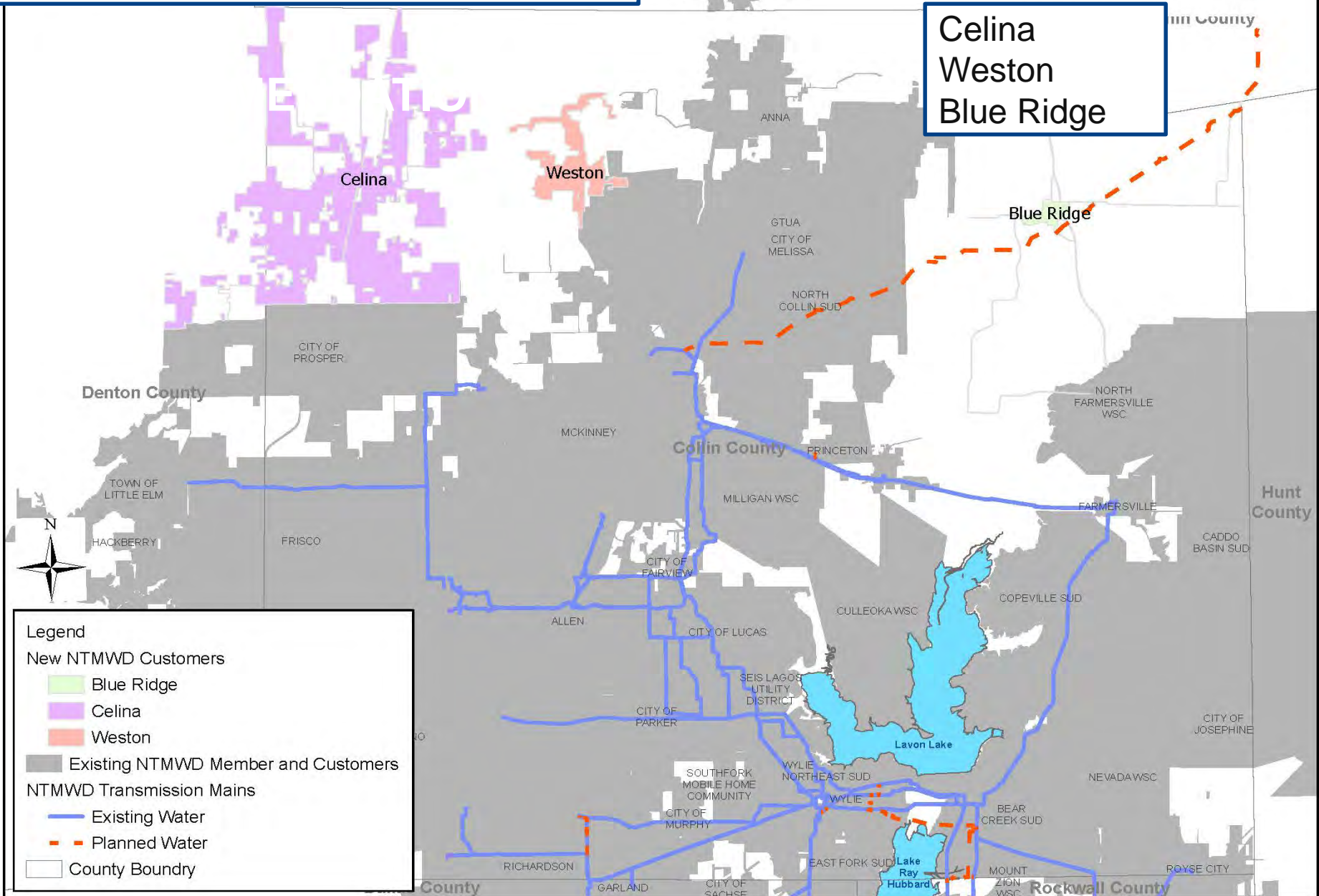
**FREESE
NICHOLS**



Cities requesting to become customers

New Municipal Customers Collin, Denton County

Celina
Weston
Blue Ridge



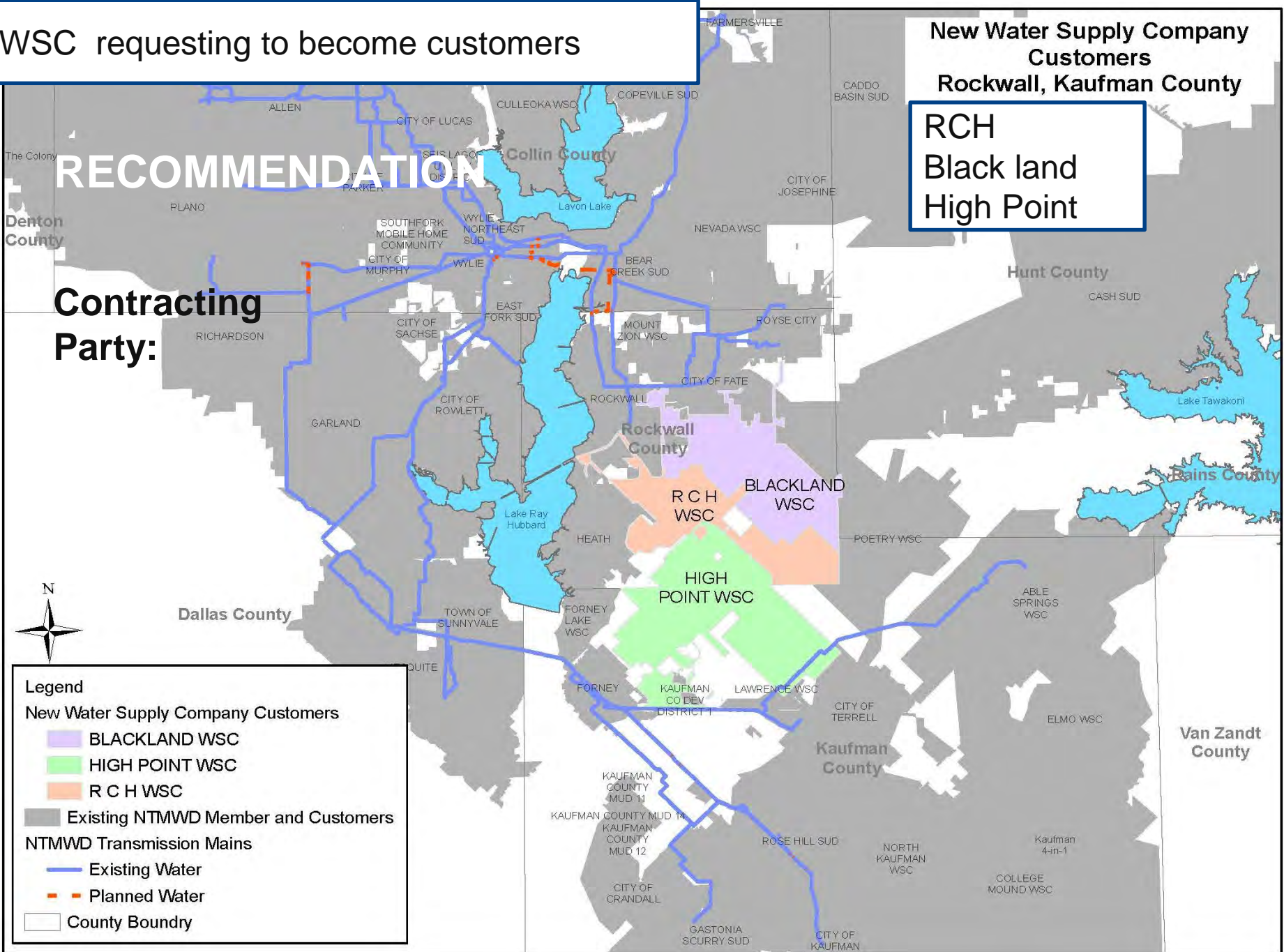
WSC requesting to become customers

New Water Supply Company
Customers
Rockwall, Kaufman County

RCH
Black land
High Point

RECOMMENDATION

**Contracting
Party:**



Legend

- New Water Supply Company Customers
 - BLACKLAND WSC
 - HIGH POINT WSC
 - RCH WSC
- Existing NTMWD Member and Customers
- NTMWD Transmission Mains
 - Existing Water
 - Planned Water
- County Boundry



NEW CUSTOMERS

Customer Requests Status:

- **Consideration for indirect Customers to become Direct Customers**
 - Approval/No objections from current wholesale provider (Member or Customer)
 - Transfer of Minimums from Member City or Customer
- **Blackland WSC 2016** (Currently Indirect Customer - Rockwall)
 - Received No objections letter from Rockwall
 - Request transfer of Minimums from Rockwall
 - Current Status:
 - Blackland & City of Fate acquiring land for joint pump station adjacent to NTMWD transmission line. Once acquired, bring Contract to Board for approval (Within months)
- **RCH WSC 2015** (Currently Indirect Customer - Rockwall)
 - Received No objections letter from Rockwall
 - No movement since 2015 (cost prohibitive)



NEW CUSTOMERS

Customer Requests Status:

- **High Point SUD**
 - 2005 Request for service with recommended Delivery point near Forney
 - Response letter; Sept 2005 “unable to consider requests until new Raw water available”
 - 2011 Request for Service with Delivery point near Terrell
 - Determined amounts from Forney and Terrell adequate for demands
 - 2020 Request for Service and Delivery Point near Forney
- Currently indirect Customer of;
 - Forney - contract expires 2031
 - Terrell - contract expires 2047
- Terrell objects to high point becoming direct customer (12 March)
- Forney has objection since High point is a WSC vs SUD (22 March)
- Initial capacity replacement cost (Preliminary ~ \$7.5M based on demand projections): Phased in with increasing minimums over 6 years



NEW CUSTOMERS

What's Next:

Long Range Water Supply Plan will help define service area. (Board's approval)

Staff recommends to develop policy to address public water suppliers desiring to become customers of the District.

Staff will bring future Customer requests to the Board for consideration when requirements have been met.



AGENDA

Discussion Items

- B. Discuss Texas Commission on Environmental Quality requirement to supply 0.6 gallons per minute of water for each customer connection supplied by public water systems**



BACKGROUND

- Texas Commission on Environmental Quality (TCEQ) 0.6 gallons per minute (GPM) per connection requirement (30 Texas Administrative Code 290.45(f))
- Each Member Cities and Customers must demonstrate they meet the 0.6 GPM rule to TCEQ as part of periodic Comprehensive Compliance Inspection
- TCEQ requires the appropriate volume of water to meet 0.6 rule stated in water contract.
- NTMWD meets the 0.6 rule technically but sometimes not contractually
- NTMWD Contracts:
 - Member City only state Annual Minimums (Usually < 0.6 rule)
 - Some Customer contracts only state Annual Minimum (Infrequently < 0.6 rule)
 - Current Contract Template states maximum volume (Usually > 0.6 rule)



AGENDA

Discussion Items

C. Discuss plan to make use of Lake Texoma water in the future



TEXOMA – A BRIEF HISTORY

1985

- **Permit 5003:**
 - Divert 84,000 ac-ft/yr.
 - Ability to deliver through Sister Grove Creek and Lake Lavon
 - Use limited to 77,300 ac-ft/yr. (reduced for channel losses in Sister Grove Creek)
- **Overdraft in Lieu of Pumping (CA 2410A)**
 - Ability to use additional water from Lavon instead of pumping from Texoma under certain conditions

2005

- **Permit 5003 Amendment A:**
 - Divert additional 113,000 ac-ft/yr.
 - Cannot be delivered through a water course
 - Inaccessible until direct pipeline to Wylie built

2006

- **GTUA Purchase Agreement**
 - 10-year purchase agreement
 - Up 25,000 ac-ft/yr. (determined annually by GTUA)
 - Could be delivered through Sister Grove Creek and Lake Lavon

2009

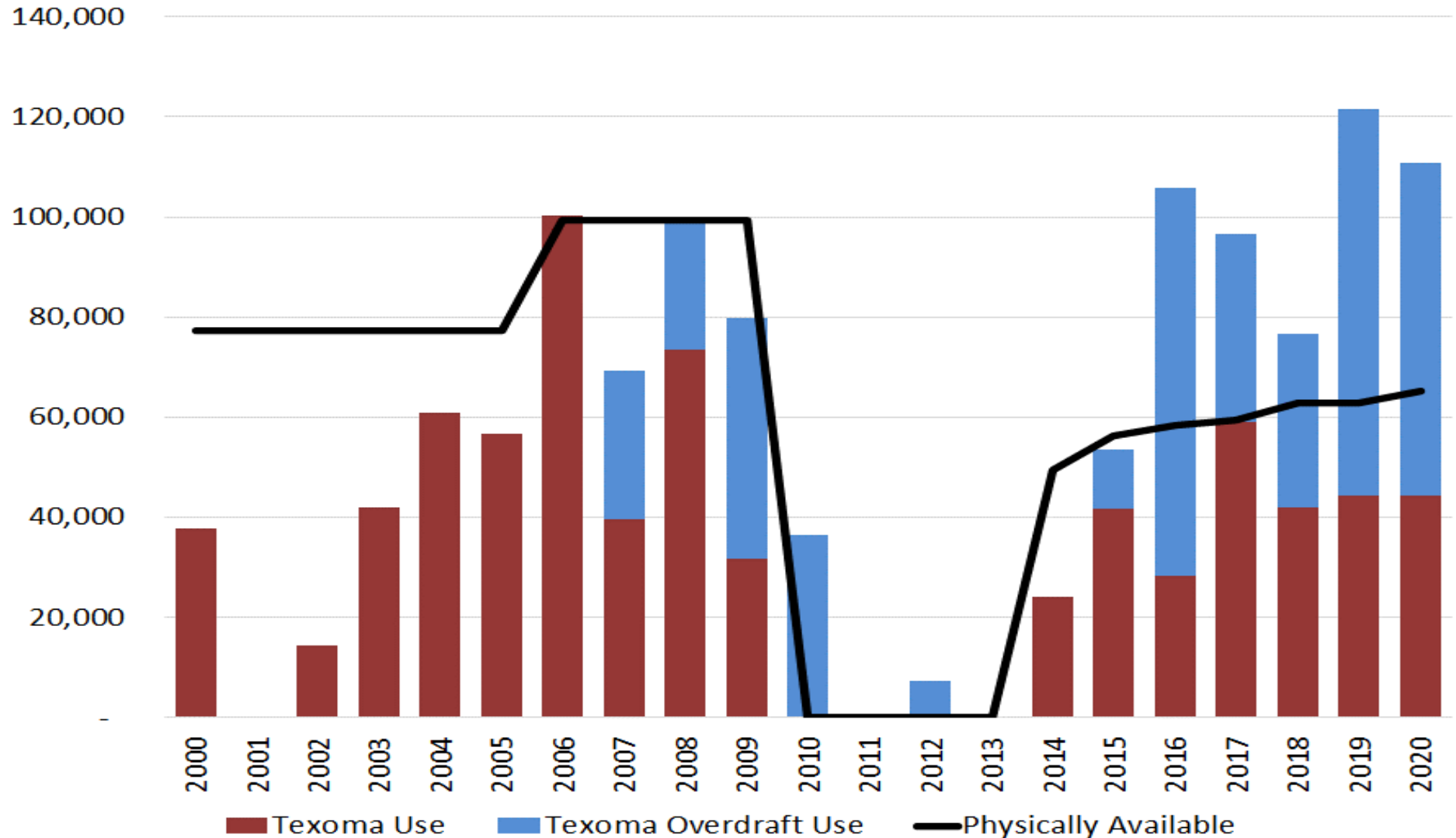
- **Discovery of Zebra Mussels**
 - Texoma supply is interrupted
 - Access to the original 1985 water & GTUA purchase supply lost
 - Emergency Response initiated

2014

- **Texoma to Wylie Direct Pipeline**
 - Restores access of up to ~112,000 ac-ft/yr. of Texoma supply (of 197,000 ac-ft/yr. WR)
 - 4 to 1 blending now governs availability for use

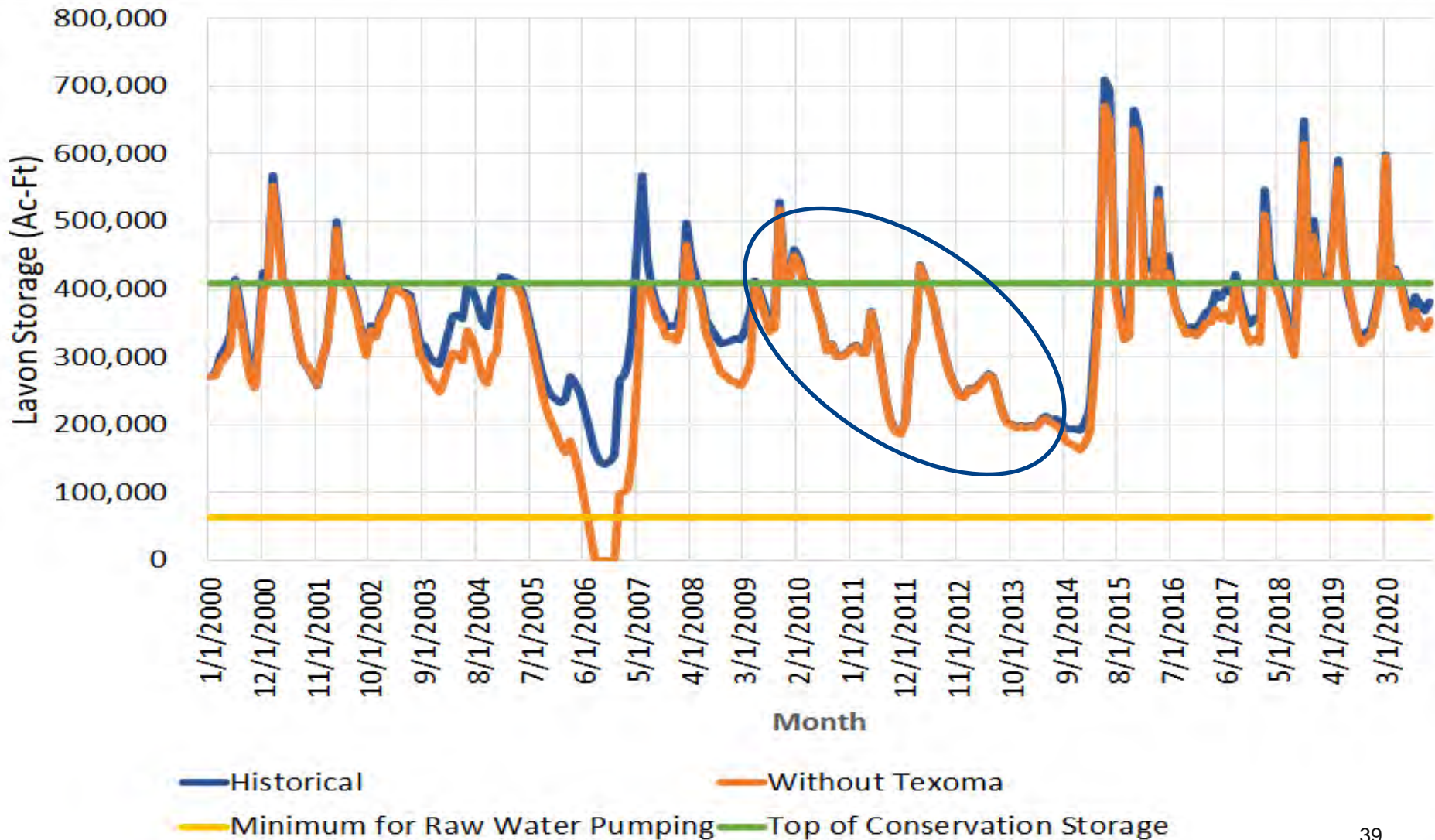


HISTORICAL TEXOMA USE (AC-FT/YR)



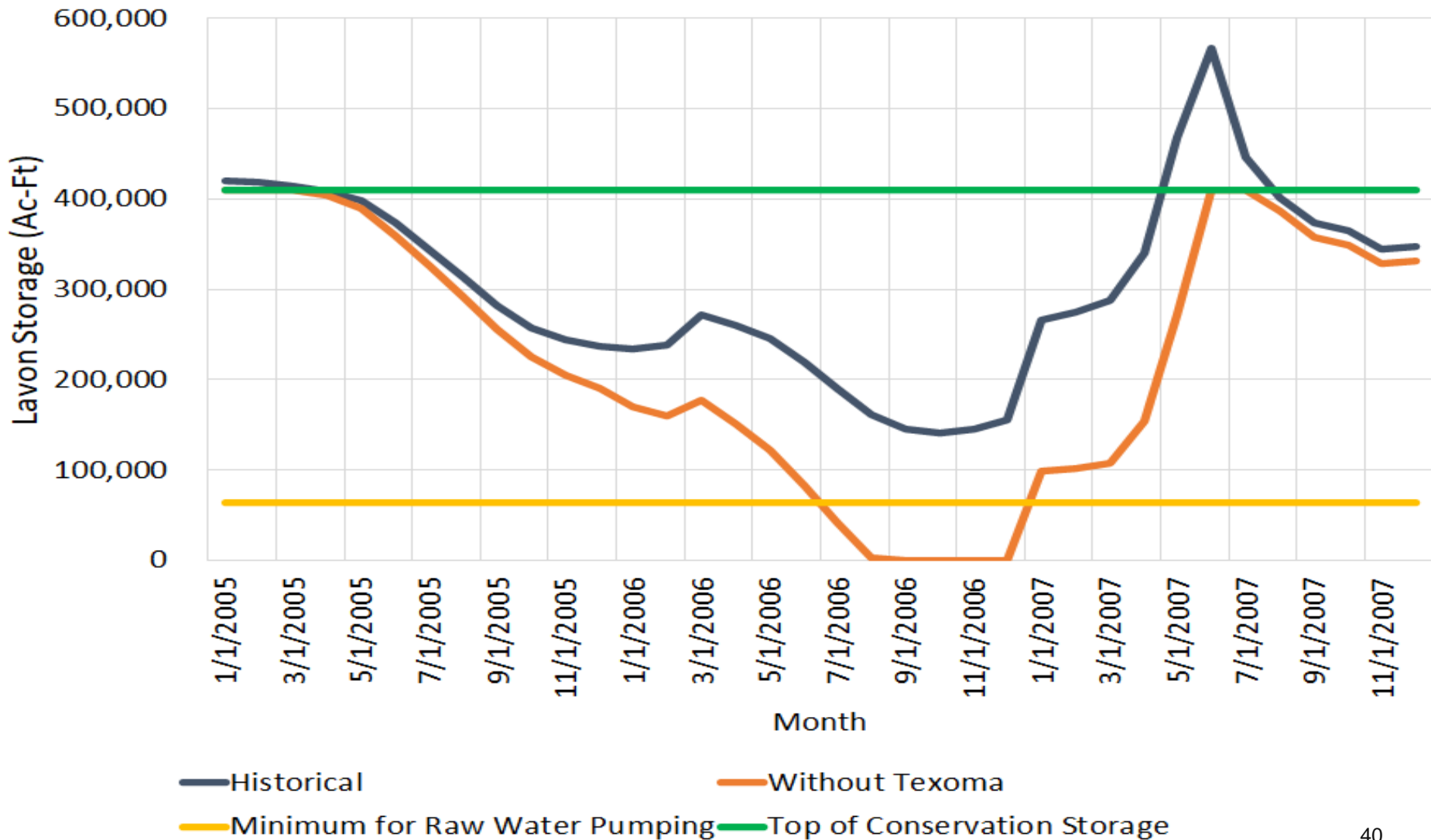


IMPACT OF TEXOMA SUPPLIES ON LAKE LAVON



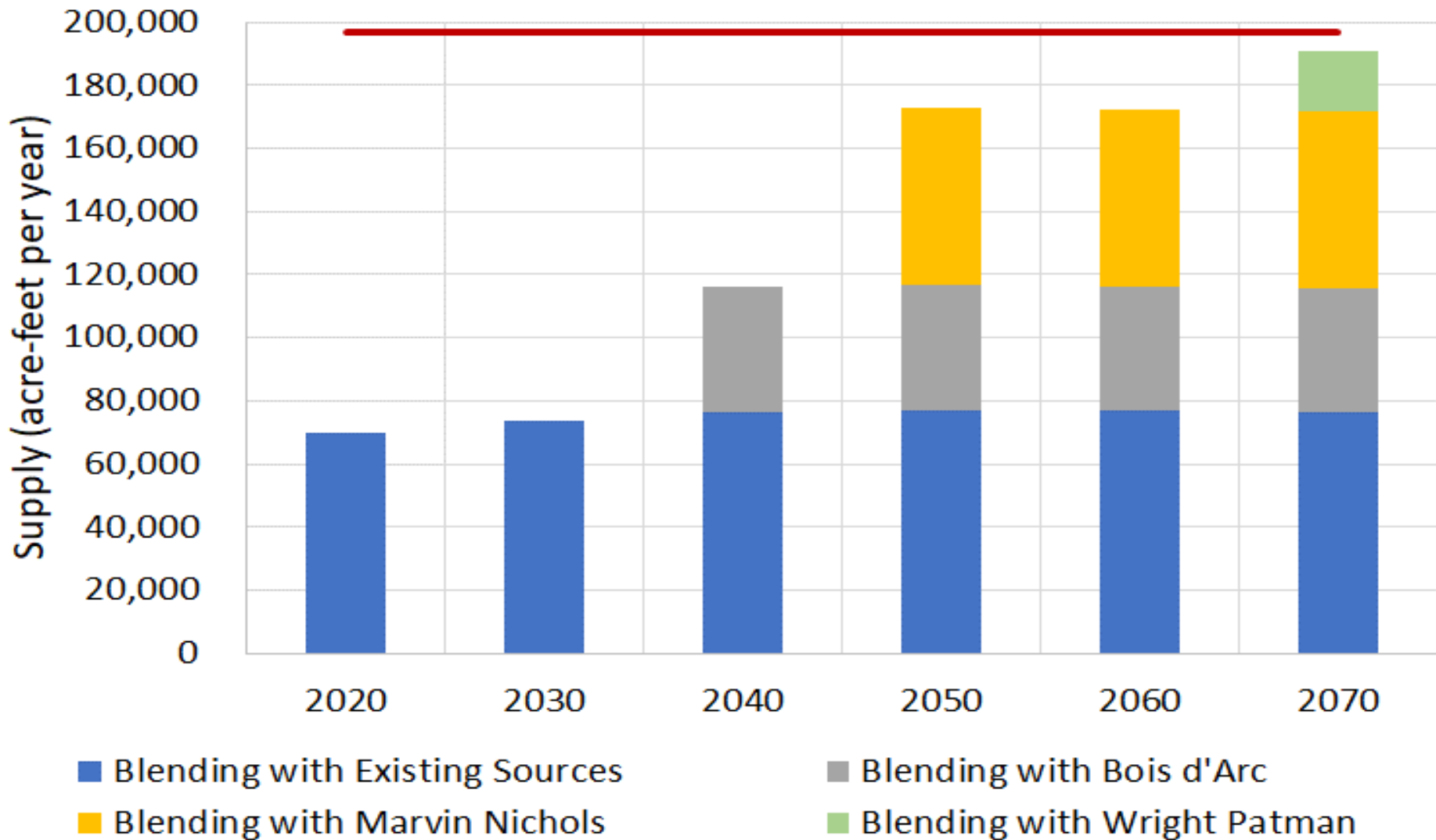


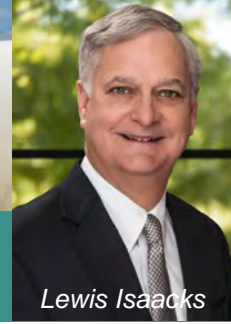
IMPACT OF TEXOMA ON LAKE LAVON - DROUGHT





FUTURE TEXOMA – DRY YEAR SUPPLIES





AGENDA

Discussion Items

- D. Discussion on roadway rights of way expansions and encroachment into NTMWD easements and other utility installations in roadway rights of way and easements in close proximity to NTMWD infrastructure**

Discussed earlier in Executive Session



AGENDA

Discussion Items

- E. Opportunity for Committee members to provide feedback on Water Committee meeting**



AGENDA

Discussion Items

- F. Opportunity for Committee members to request potential future agenda items
(No substantive discussion of items will take place at this time)**

Adjournment