



**NORTH  
TEXAS  
MUNICIPAL  
WATER  
DISTRICT**

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

# **State Water Plan Region C Update**

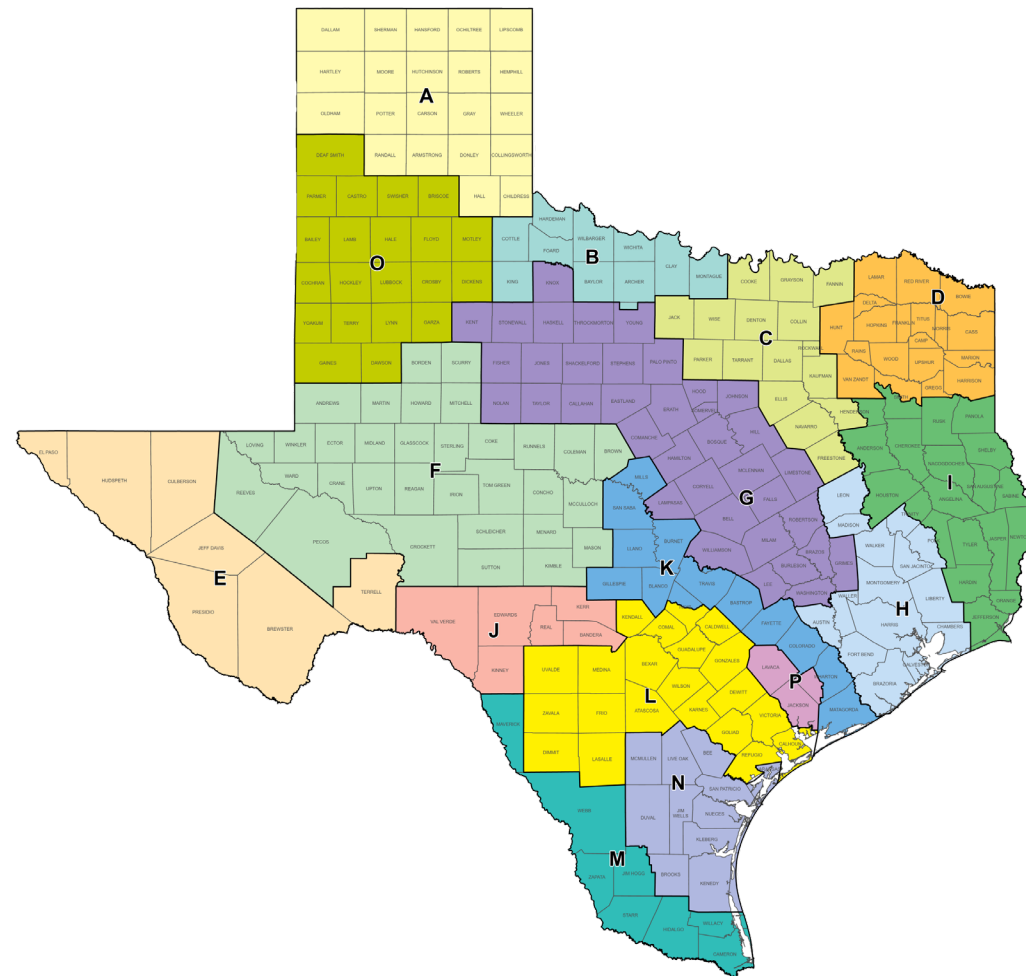
## **NTMWD Future Water Supplies**

**February 27, 2025**



# State Water Planning Process

- Water planning process conducted through bottom-up approach with new plans every five years
- Texas divided into regions that each develop their own initial plan
- Planning conducted on a 50-year horizon evaluating:
  - Population and water projections
  - Existing and future water supplies
- Plans include recommended and alternate water strategies
- NTMWD's portion of Region C plan includes strategies evaluated in our Long-Range Water Supply Plan
- Texas Water Development Board (TWDB) will compile all regional water plans to create 2027 State Water Plan



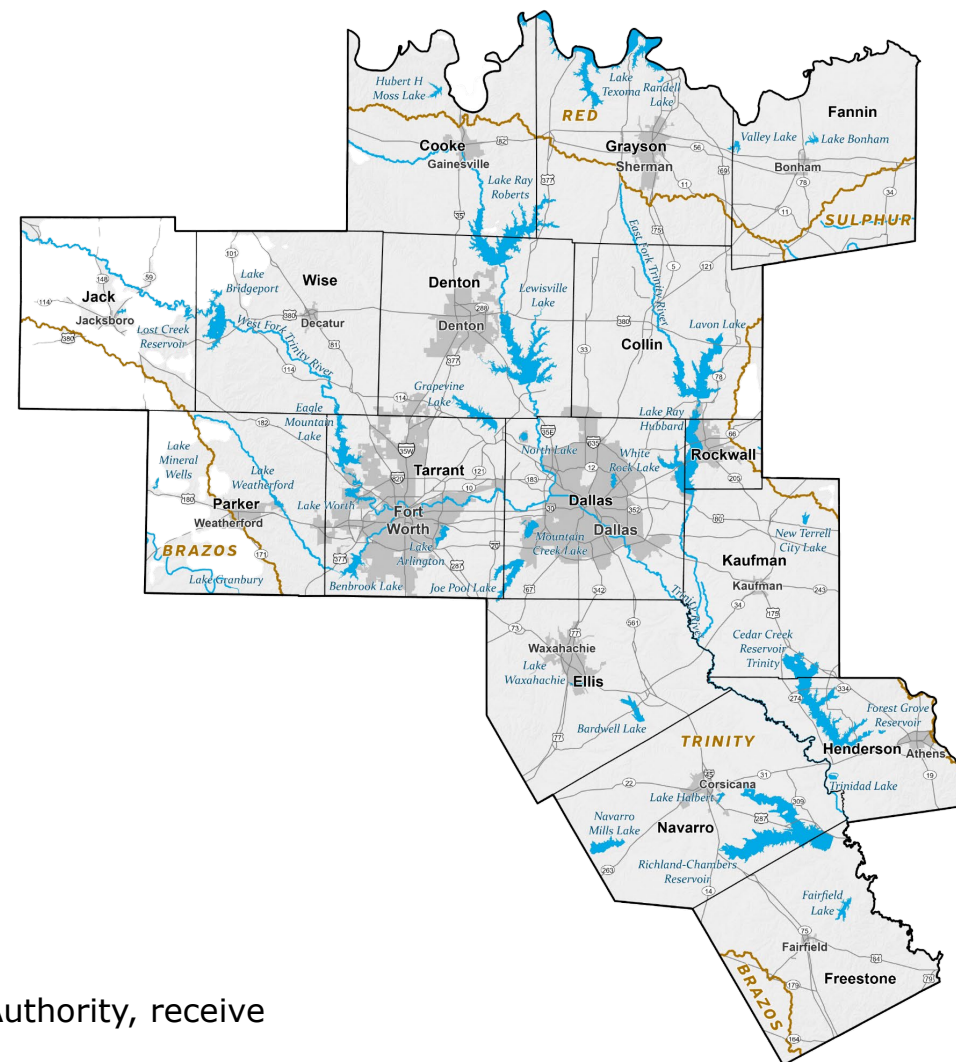




# Region C Overview

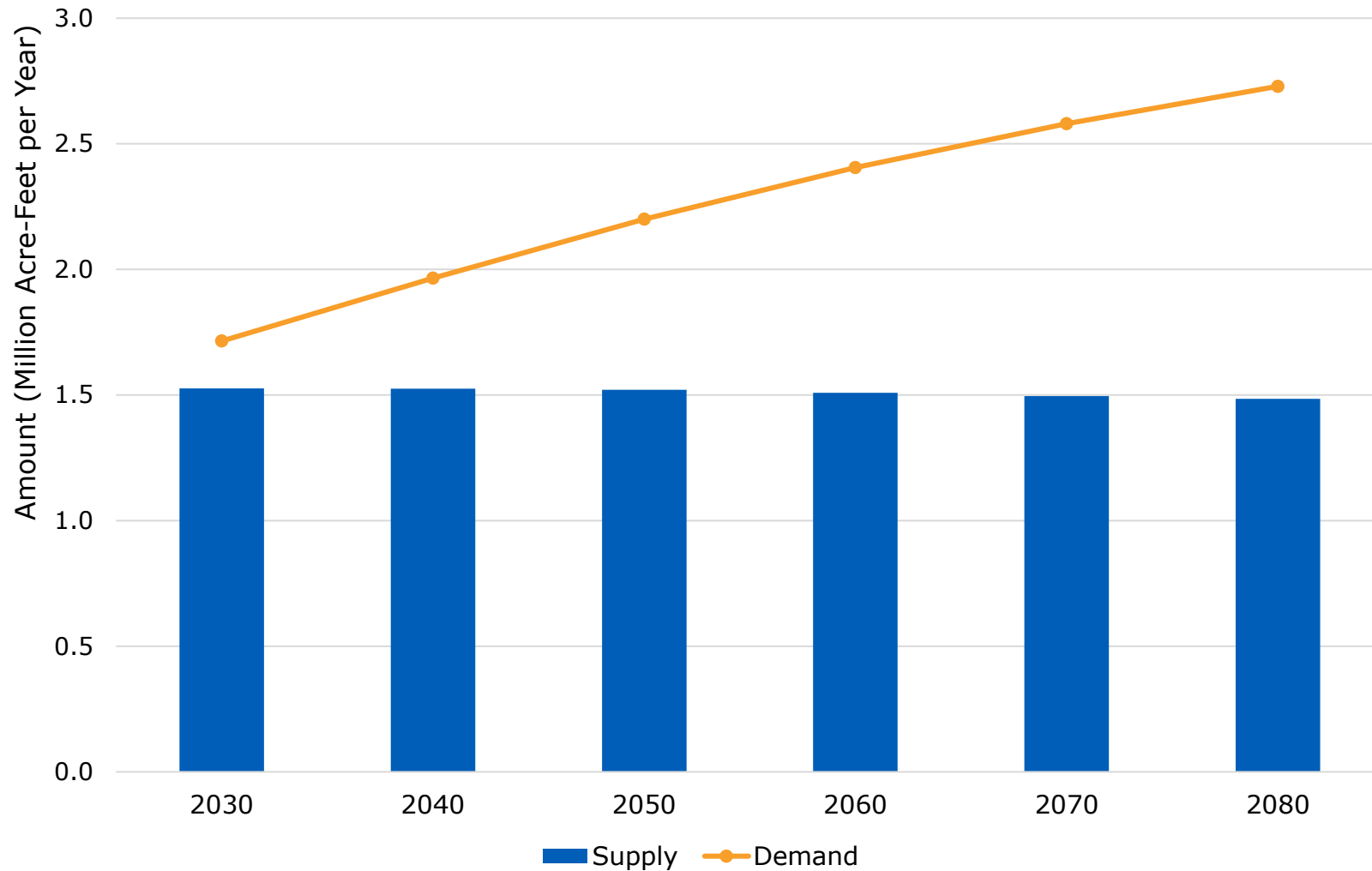
- Includes all or parts of 16 counties, with some of the fastest-growing counties in Texas and one-quarter of the state's population.
- Features a dynamic economy, accounting for almost one-third of the state's gross domestic product
- Accounts for [one-third](#) of projected municipal water demand across the state by 2030
  - 90 percent of the water use in the region is classified as municipal
- Major water providers (MWP):
  - North Texas Municipal Water District
  - Dallas Water Utilities
  - Tarrant Regional Water District\*
  - Upper Trinity Regional Water District
- Region C's Initially Prepared Plan (IPP) approved for submission to TWDB on February 24, 2025

**\*Note:** Two other major water providers, Fort Worth and Trinity River Authority, receive water from Tarrant Regional Water District.





# Region C Major Water Provider Projected Water Demands Through 2080

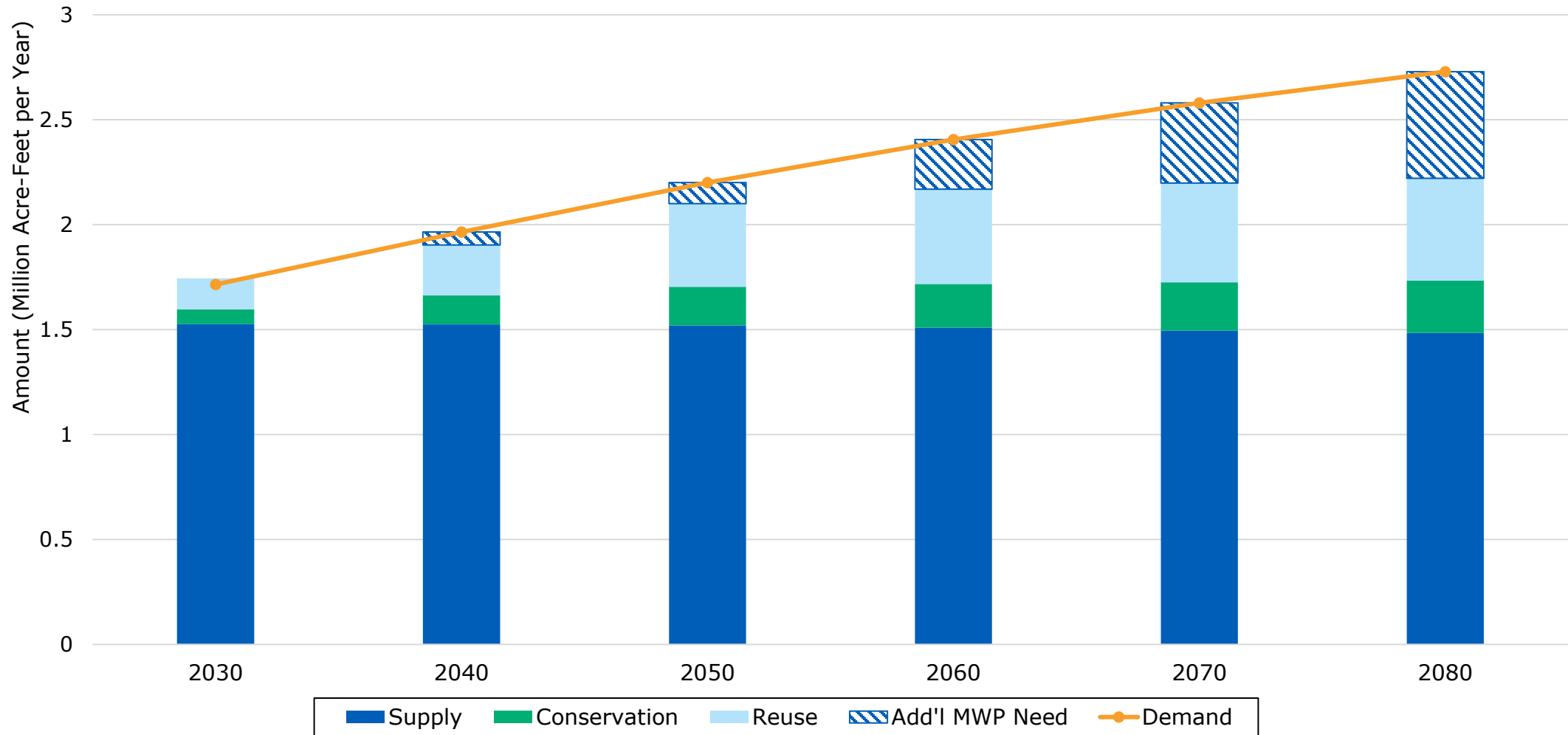


# 72%

increase between  
2030 and 2080  
(1.24 million  
acre-feet per  
year)



# New Conservation and Reuse Efforts Can't Make Up the Gap for Region C Major Water Providers



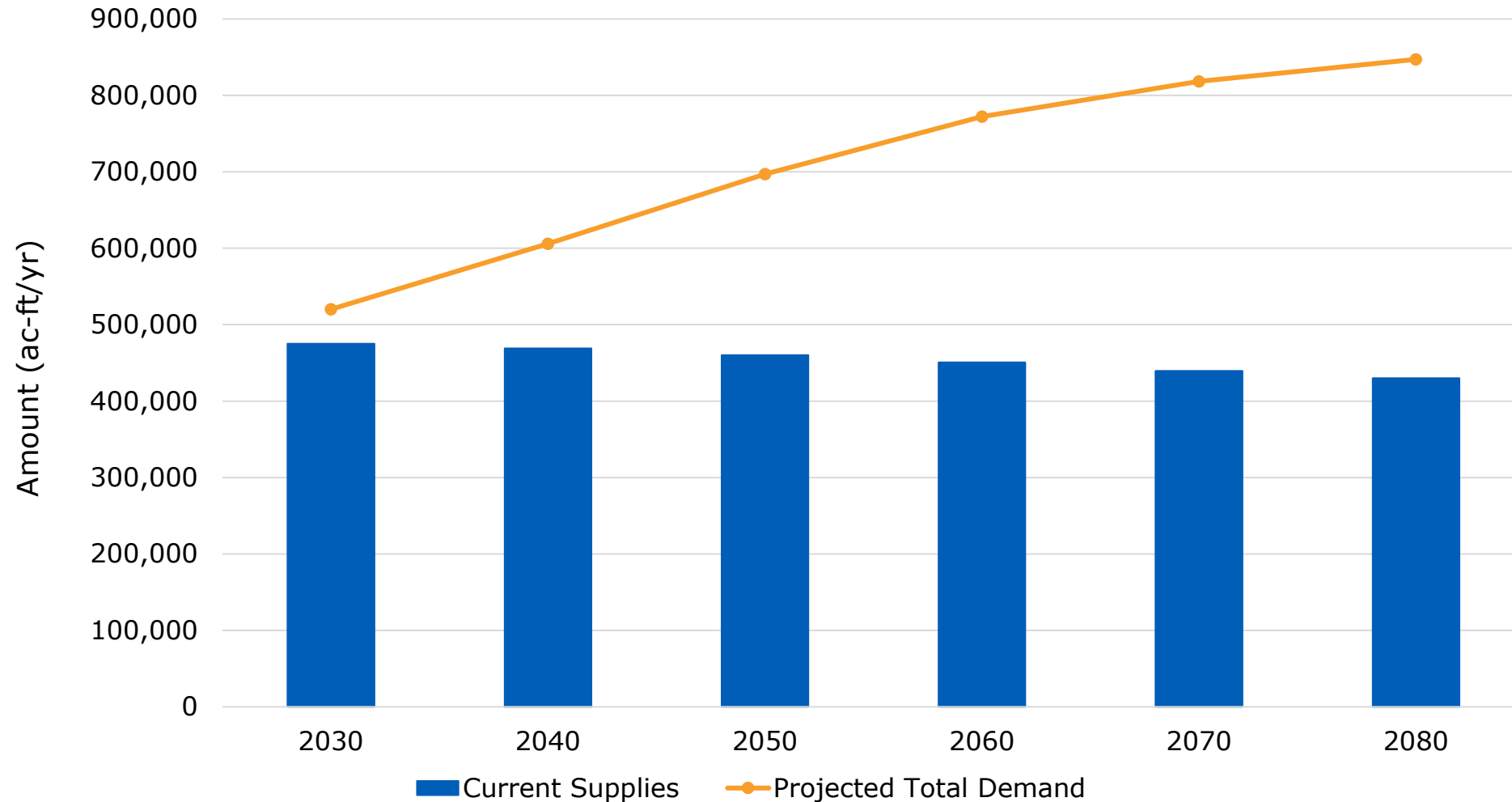


## Major Strategies Recommended for Region C

- Water Conservation and Reuse
- Connection of Existing Supplies
  - Lake Palestine
  - Lake O' the Pines
  - Lake Texoma
- Development of New Groundwater Supplies
- Marvin Nichols Reservoir
- Wright Patman Lake Reallocation



# NTMWD's Projected Water Needs Double by 2080





# What We're Doing to Keep Water Flowing



**Conservation**



**Reuse/New Resources**



**Short-term Planning**



**Long-term Planning**





# New Resources: In the Works

## Regional Water Projects to Increase Supply

### Leonard Water Treatment Plant Phase II:

Expand treatment capacity to 140 Million Gallons Per Day (MGD) to access additional Bois d'Arc Lake supplies

### Wylie Water Treatment Plant IV Expansion:

Increase treatment capacity to 280 MGD to add to supply (final expansion to Wylie plant)

### Bois d'Arc Lake Raw Water Pump Station No. 2:

Increase pumping capacity to 142 MGD for more water to treat and add to the drinking supply

### Lavon Lake Raw Water Pump Station No. 4:

Create new, deeper intake at Lavon Lake to increase access to deeper storage during droughts

**Sister Grove Regional Water Resource Recovery Facility:** Implement new wastewater treatment plan for northern portion of service area to add to reuse reserves





# Short-Term Water Supply Strategies

**The Long-Range Water Supply Plan examined strategies that could be implemented by 2040.**

**Including:**

- Fresh groundwater supplies from sites in east and northeast Texas
- Additional reuse water using various configurations and technologies for treatment
- Connecting to existing reservoirs, including proposed Lake O' the Pines project
- Desalination of Lake Texoma supplies (to reduce high salinity from Red River basin deposits)





# Examining Long-Term Strategies

**The plan also examined longer-term strategies that could be implemented after 2040.**

Including:

- Aquifer Storage and Recovery, requires more study to determine viability
- Using more from Lake Texoma, requires blending with additional new sources
- Purchasing/transferring water from Toledo Bend Reservoir on the Texas/Louisiana border
- Reallocating storage in Lake Wright Patman from flood control to municipal use
- Potential new lakes: Marvin Nichols, George Parkhouse



# **NTMWD Water Management Strategies (WMS) Included in Region C IPP**

## **Recommended WMS**

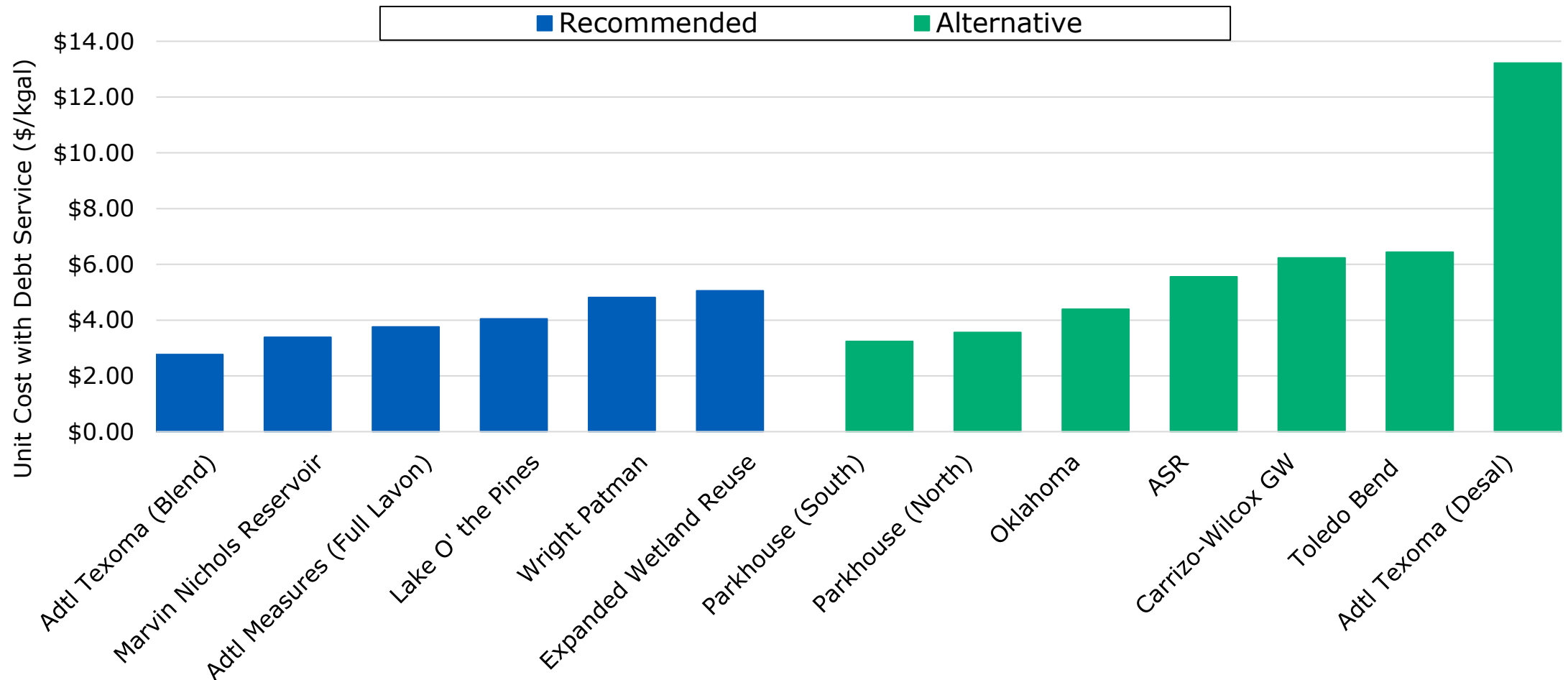
- **Conservation**
- **Additional Lake Texoma Blend Phase I (Bois d'Arc Lake)**
- **Additional Measure to Access Full Lavon Yield**
- **Expanded Wetland Reuse**
- **Sabine Creek WWTP Reuse**
- **Additional Lavon Watershed Reuse**
- **Interim Upper Sabine Basin**
- **Lake O' the Pines**
- **Marvin Nichols Reservoir**
- **Wright Patman Reallocation**
- **Additional Lake Texoma Blend Phase II (Lake O' the Pines/Marvin Nichols)**
- **Fannin County Water Supply System**
- **Treatment and Distribution (CIP)**

## **Alternative WMS**

- **Lake Texoma - Desalinate at Leonard**
- **Carrizo-Wilcox Groundwater**
- **George Parkhouse Reservoir (North)**
- **George Parkhouse Reservoir (South)**
- **Aquifer Storage and Recovery**
- **Toledo Bend Reservoir**
- **Oklahoma**



# Cost Comparison for Key NTMWD Strategies

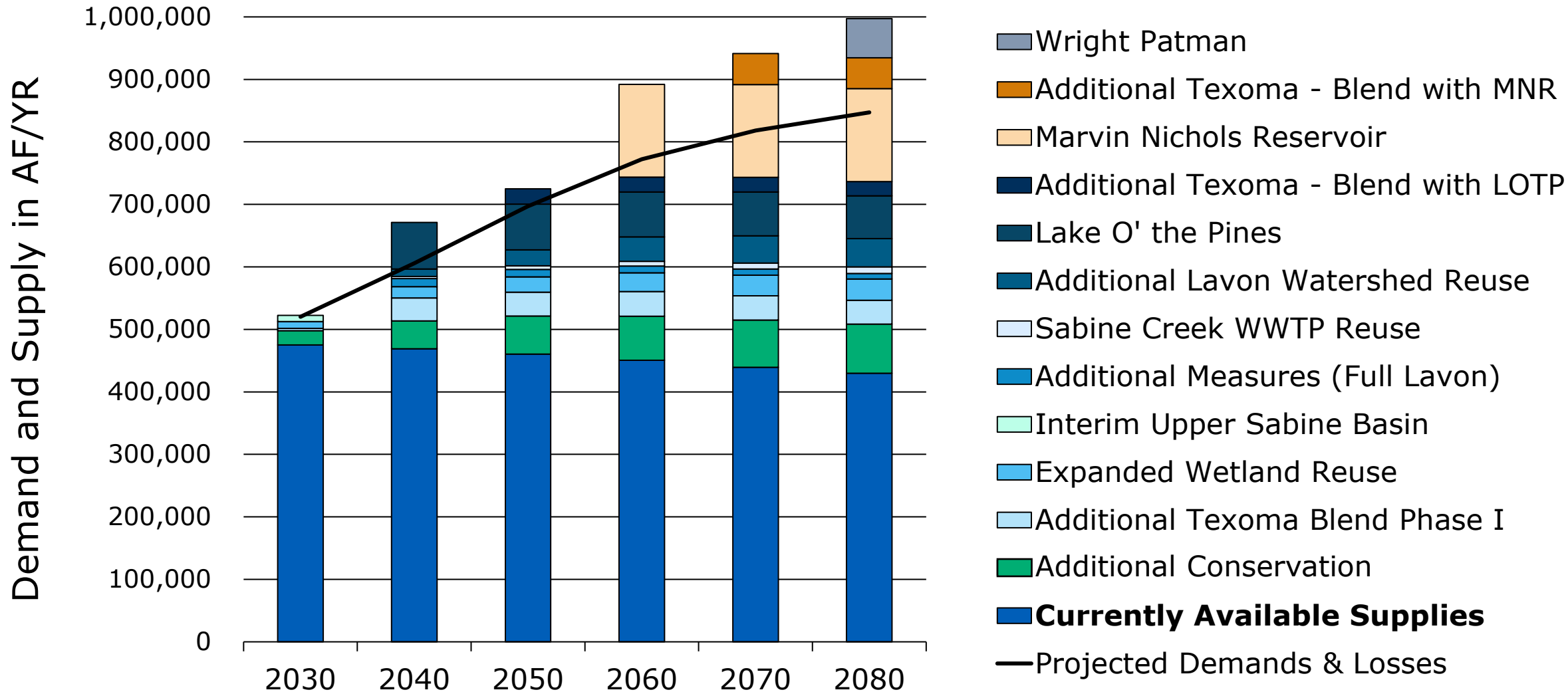


**Notes:** Sabine Creek WWTP Reuse and Additional Lavon Watershed Reuse costs only include permitting. CIP treatment and transmission infrastructure costs for these strategies are not shown, except for alternative additional Texoma (desalination costs).





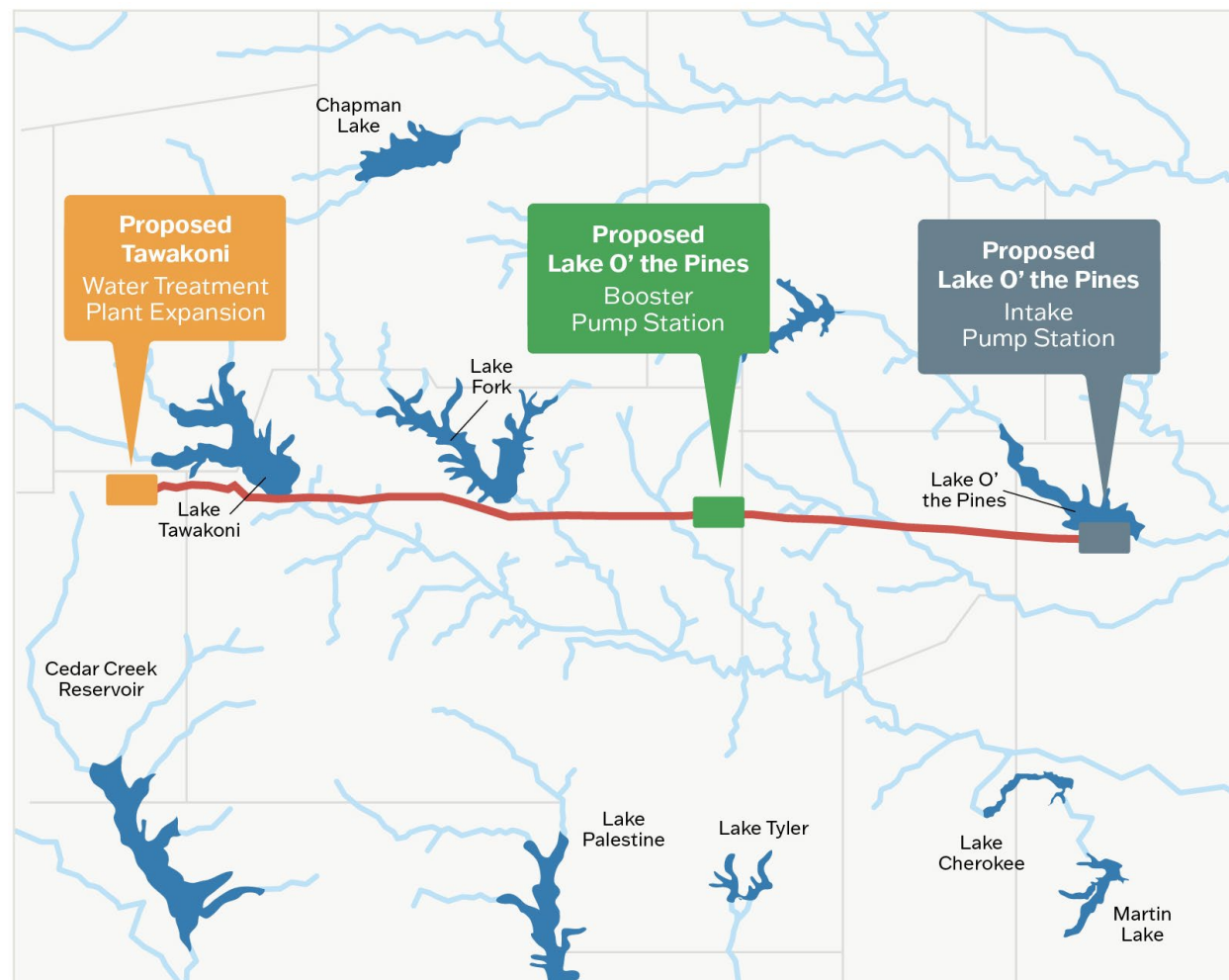
# How Key Strategies in Region C Plan Would Meet NTMWD's Future Needs





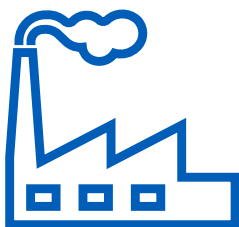
## Focus on Lake O' the Pines

- Next potential major project for new water supply in NTMWD service area
- Included in the State Water Plan as a potential strategy for NTMWD since 2007
- Complex deal involving raw water purchase from Northeast Texas Municipal Water District (NETMWD) and/or other existing water rights holder in Cypress Basin
- Could supply 50–100 million gallons per day (MGD) to NTMWD service area, when needed
- Infrastructure to transport water to North Texas would include:
  - More than 100 miles of pipeline
  - An intake pump station
  - A booster pump station
  - Water treatment facilities





# Key Facts about the Potential Water Purchase



Water from Lake O' the Pines has been sold to industrial customers and others for many years. Some customers no longer need the water, allowing it to be sold to new customers.



NTMWD is interested in buying or leasing this water plus an unneeded portion of excess water from both Northeast Texas Municipal Water District and their member cities.



If approved, the purchase will provide a significant source of revenue for the Northeast Texas Municipal Water District and potentially for its member cities.



Lake O' the Pines produces enough water to serve Northeast Texas' future water needs and to allow for the water sale to NTMWD.

If growth in Northeast Texas exceeds projections, NTMWD is committed to working with NETMWD and others in the region to ensure those needs are met.





# Environmental Considerations

- NTMWD has a history of working with environmental interests as part of new water projects, including developing a voluntary environmental flow commitment for Bois d'Arc Lake.
- Regional stakeholders have been working to assess the needs of the Cypress Basin and Caddo Lake for many years, and NTMWD is open to partnering in those efforts.
- This state permitting process for this project would include opportunities for regional engagement, and we anticipate environmental considerations would be part of those discussions.





## Region C Plan – Next Steps

- Region C Initially Prepared Plan (IPP) due to TWDB on March 3, 2025
- Each Region has 60 days to declare an interregional conflict from IPP submission
- Strong chance Region D will declare an interregional conflict on Marvin Nichols
- TWDB will provide formal comments back to regions within 120 days of plan submission (July 2025)
- Final regional plans due to TWDB on Oct. 20, 2025