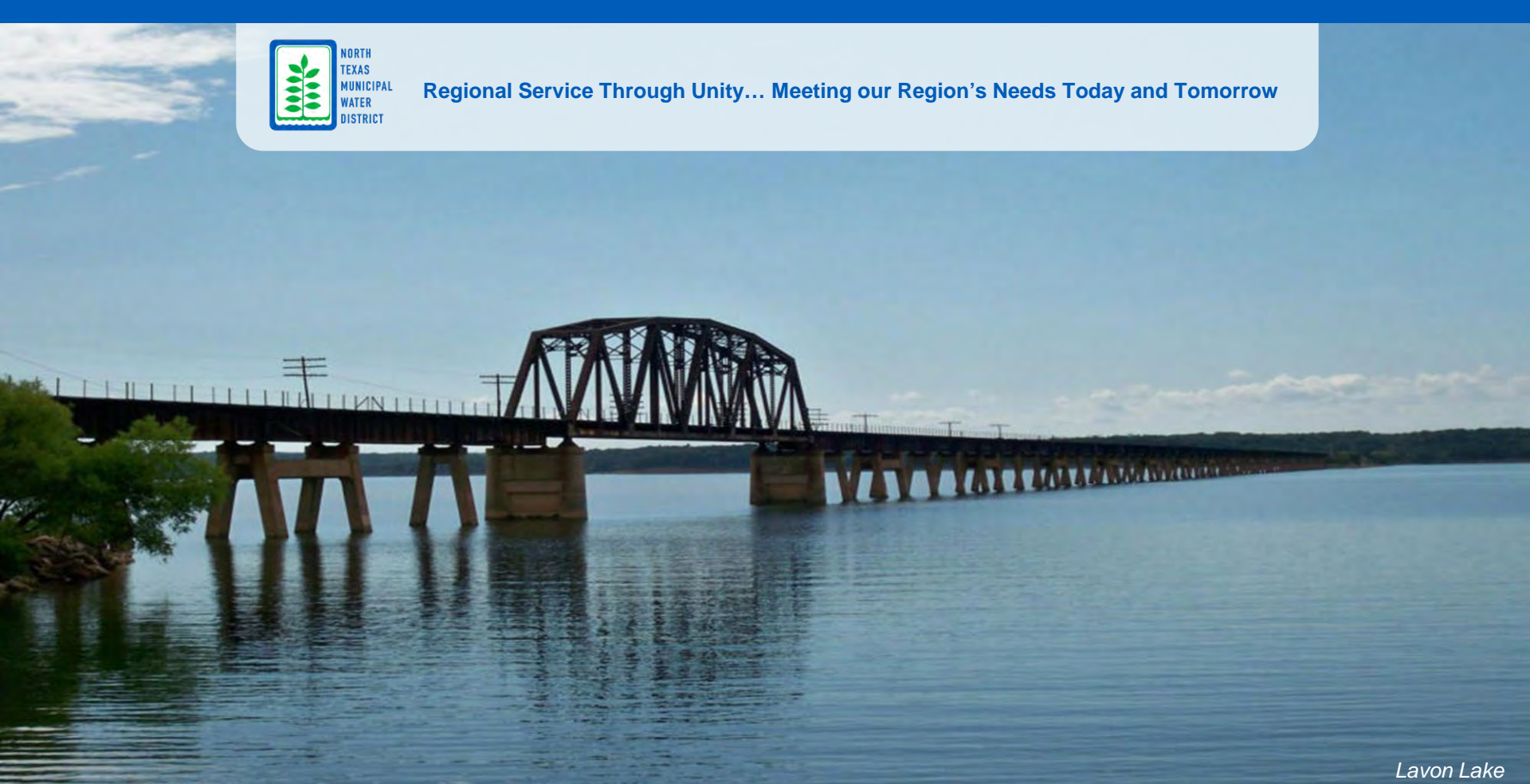




Regional Service Through Unity... Meeting our Region's Needs Today and Tomorrow



Lavon Lake

WATER COMMITTEE MEETING

FEBRUARY 22, 2023 (Via Videoconference)



AGENDA

ACTION ITEMS

- A. Consider approval of Water Committee meeting minutes – January 25, 2023**
- B. Authorize execution of a potable water supply contract with Wylie Northeast Special Utility District (SUD) - Administrative Memorandum No. 5887**
 - Consider recommendation on authorizing the execution of a potable water supply contract with current customer, Wylie Northeast SUD, with a contract term of 20 years

DISCUSSION ITEMS

- A. Wylie Water Treatment Plant IV filter gallery repairs update**
- B. Wylie Complex Comprehensive Compliance Investigation update**
- C. Mid-year member and customer water consumption update**
- D. Discuss Mt. Zion Water Supply Corporation's water contract**
- E. Discuss Sulphur River Municipal Water District water supply contract**
- F. Opportunity for Committee members to provide feedback on Water Committee meeting or request potential future agenda items**



AGENDA

Opening Remarks

- A. Chair/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 – January 25, 2023**

Recommend approval of Water Committee meeting minutes



AGENDA

Action Items

B. Authorize execution of a potable water supply contract with Wylie Northeast Special Utility District (SUD) - Administrative Memorandum No. 5887

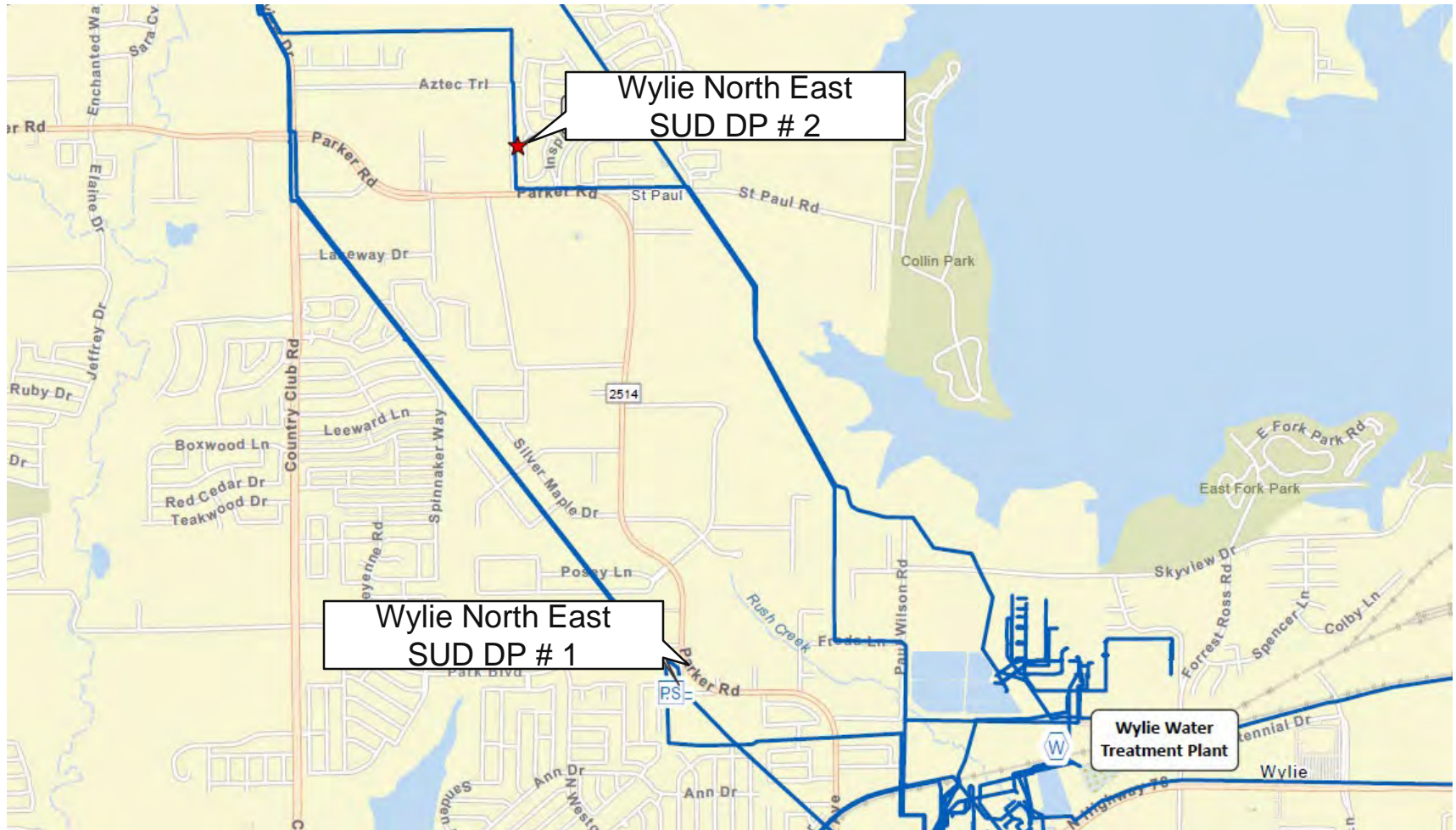
- Consider recommendation on authorizing the execution of a potable water supply contract with current customer, Wylie Northeast SUD, with a contract term of 20 years

What: Authorize execution of a Potable Water Supply Contract with Wylie Northeast Special Utility District, a current customer of NTMWD



WYLIE NORTHEAST SUD POTABLE WATER SUPPLY CONTRACT

Wylie Northeast SUD Delivery Points





BACKGROUND & SCOPE OF CONTRACT

- **Wylie Northeast SUD is a current direct customer of NTMWD**
- **Wylie Northeast SUD entered into Wholesale Treated Water Contract with NTMWD dated July 26, 2018, which included a six-year phased in annual minimum in accordance with District Policy 8**
- **Wylie Northeast SUD has achieved the sixth year annual minimum at their 2nd point of delivery**
- **Wylie Northeast SUD exceeded their annual maximum of 441,900,000 gallons in 2022, which requires negotiation of a restated contract**



CONTRACT COMPONENTS WITH WYLIE NORTHEAST SUD

- **Potable water supply contract conforms to the new customer contract language approved by the Board April 22, 2021**
- **Contract term of 20 years**
- **Contract will provide methodology for calculating annual minimums**
- **An annual maximum of 485,000,000 gallons per year**
- **An annual minimum of 481,110,000 gallons of water**
- **Cost of potable water is set at the current water rate established for customer entities by the Board of Directors**
- **Any water delivered in excess of the annual minimum will also be purchased at the water rate established by the Board of Directors**



RECOMMENDATION

The Executive Director and NTMWD staff and Lloyd, Gosselink, Rochelle & Townsend, P. C., recommend the Board of Directors authorize execution of a potable water supply contract with the Wylie Northeast SUD.

Contracting

Party: Wylie Northeast Special Utility District

Purpose: Potable Water Supply Contract

Contract

Term: 20 years



AGENDA

Discussion Items

A. Wylie Water Treatment Plant IV Filter update



HISTORY

- **WTP IV North Filters (20 units) placed into service April 2008**
- **Minor leaks and wall cracks became progressively more severe. TCEQ Inspection noted leaks as a deficiency in 2016.**
- **Engaged third-party engineering evaluation of leak locations to identify potential causes**
- **Conducted destructive testing and performed forensic analysis to identify cause of failures and identify potential remedies**
- **Suit filed in 2018 and Settlement between NTMWD and contractor/consultant (August 2019/March 2020)**
- **Engaged a CMAR contractor to conduct pilot repair of a single filter in November 2020**



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REPRESENTATIVE LEAKS





EVALUATING REPAIR APPROACH

- **Initial authorization to repair Filter 4 as “Pilot” – November 2020**
- **Major Pilot findings:**
 - Crack injection from dry side only
 - Wet side protective coating not necessary
 - Wholesale media replacement in other 19 filters is not necessary
 - Anticipate additional missing reinforcing steel
 - Localized full-depth wall repair more extensive than anticipated
 - Failure mode of PVC waterstop will require more injection
 - Large-diameter pipe penetrations require an adjusted approach
- **Findings allowed refined cost/schedule assumptions for remaining filters**
 - Net affect was overall project cost reduction
- **Subsequent award of amendment to CMAR contract in October 2021 to complete repairs of remaining 19 filters**

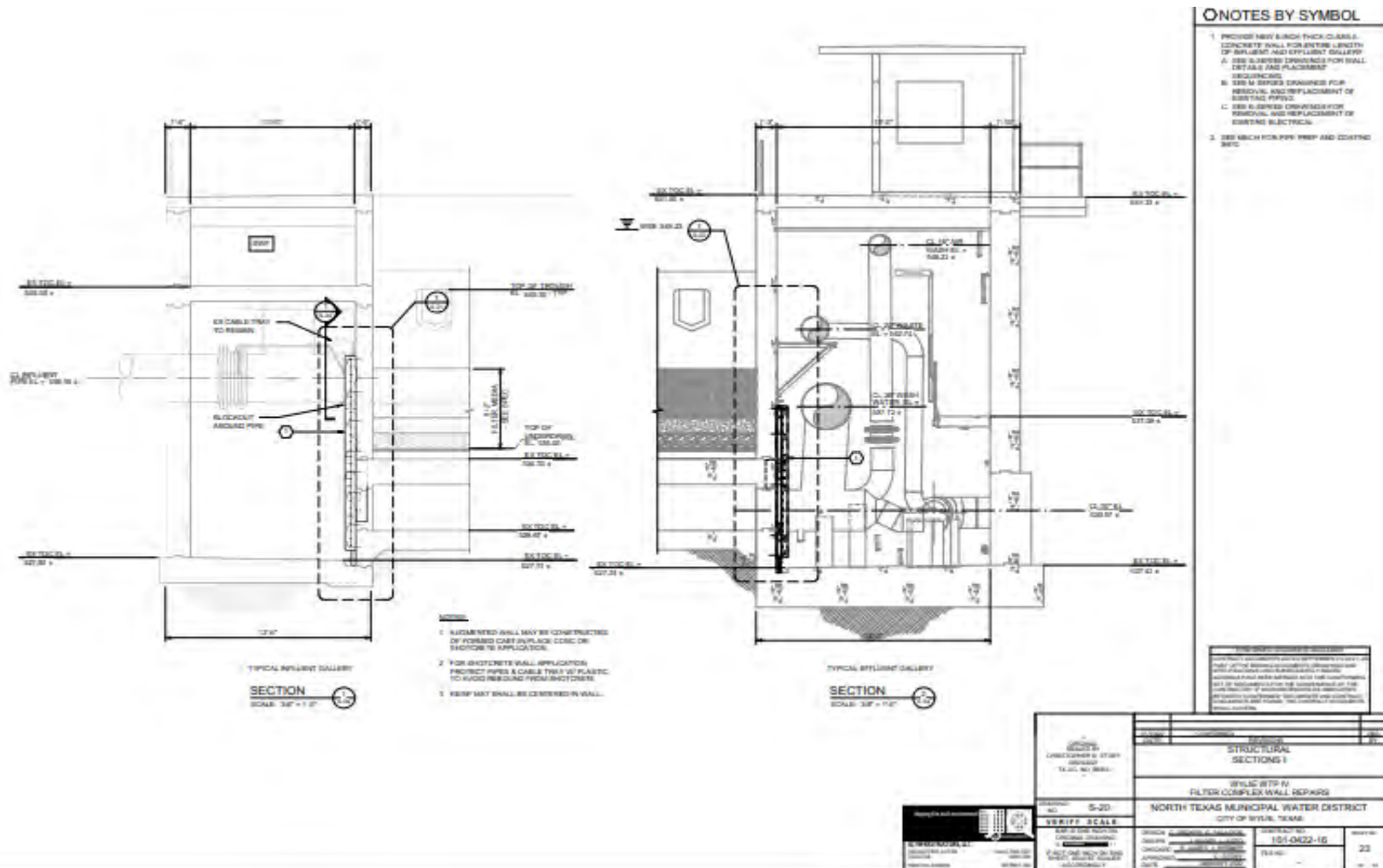


REPAIR APPROACH

- **Repair destructive test locations**
- **Expansive crack injection into major cracks to seal against water migration**
- **Augmented wall, doveled into existing filter end walls, to add stiffness and to seal against any additional micro cracks**
- **Augmented supplemental reinforcing around large pipe penetrations, and extension of pipe joints to clear newly thickened wall**
- **Auxiliary water and pneumatic system needed to be cleared from the walls to allow modifications**
- **Existing loose wall coatings cleaned in preparation of placement of augmented wall**



REPAIR PLAN





WORK COMPLETED

- **Auxiliary systems (electrical/pneumatic) have been cleared**
- **Wall coatings have been stripped, as needed**
- **Dry-side crack injection complete for all filters (minor touch-up remains)**
- **Installation of augmented wall dowels near complete**
- **Four filters complete (16, 17, 18, 20) and Filter 4 has minor work remaining**



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REPAIR WORK





REPAIR WORK





IMPACTS TO PROGRESS

- **Placement of augmented concrete requires that water levels in three contiguous filters be maintained (no backwashing) for 3 to 7 days for concrete curing**
- **Progress on concrete placement was postponed from May 2022 until winter 2022/2023 due to water system demands**
- **Three-month shutdown of Plant IV North originally planned for January, 2023, to complete wall penetration pipe replacements at 18 filters.**
- **Planned shutdown for Plant IV North is on hold until Plant II can be returned to partial operation following repairs to recently identified pipe joint leak on 84-inch pipe connecting CW 2-2 to HSPS 2-2/2-3.**



REVISED REPAIR PLAN

- **Perform full depth wall repairs at 6 filters during 3-month WTP outage**
- **Wall augmentation at as many filters as possible during 3-month period. Estimated approximately 4 can be completed**
- **Extension of all wall pipe penetrations**
- **Limited wall augmentation can continue after 3-month outage subject to water system demands**
- **Original plan allowed only one filter out of service during summer months**
- **Planned completion of all repairs was originally scheduled for October 2024**
- **It's anticipated that due to system demands, final completion of the repairs may need to be extended to Spring/Summer 2025**



AGENDA

Discussion Items

B. Wylie Complex Comprehensive Compliance Investigation update



WYLIE COMPLEX COMPREHENSIVE COMPLIANCE INVESTIGATION

Texas Commission on Environmental Quality (TCEQ) performed inspection in October 2022 with final report sent late January 2023

Outstanding Violations – Cited in 2016

- **Failure to maintain the filters in a watertight condition at Plant IV**
 - Work ongoing
- **Failure to measure and record the Combined Filter Effluent (CFE) turbidity levels at least once every four hours**
 - Plant I CFE will be addressed with associated BAF project work
 - TCEQ has agreed to a temporary solution of grab samples until the permanent online solution completed on Plants I-III
- **CFE update on Plants II, III and IV**
 - Plant IV CFE completed
 - Attempted in-house modifications but have proven troublesome
 - Plants II will be tested this month
 - Plant III had issues with scaling buildup, but modifications have been made. Sampling will begin this month
- **Important to have representative location for compliance reporting**



REGULATORY UPDATE

New Items from 2022 Inspection

Additional Issues

- Reclaim water pump spraying water due to bad bearing
 - District working with pump manufacturer to resolve at time of inspection
 - Issue resolved
- “Dead zone” at end of Plant II basin with vegetation growth
 - Area cleared and circulation restored
 - Issue resolved
- Filter media noticed on top of filter walls and trough at a Plant I filter
 - Issue caused by programming error for high-rate backwash
 - Issue resolved
- Noted there were chemical totes without secondary containment
 - Pumping out chemical containment pits due to rainfall for disposal
 - 3 left at Plant III – will be removed this week
 - Addition of a temporary secondary tote containment when needed



AGENDA

Discussion Items

C. Mid-year member and customer water consumption update



WATER YEAR 2022-2023 CONSUMPTION STATUS

- **A total of 5 Member Cities appear to be on pace to set a new (higher) minimum**

Member City	% Annual Min. Aug-Jan	On pace to set new Annual Min.
Allen	51%	
Farmersville	55%	X
Forney	54%	X
Frisco	49%	
Garland	44%	
McKinney	49%	
Mesquite	45%	
Plano	43%	
Princeton	61%	X
Richardson	49%	
Rockwall	48%	
Royse City	54%	X
Wylie	53%	X



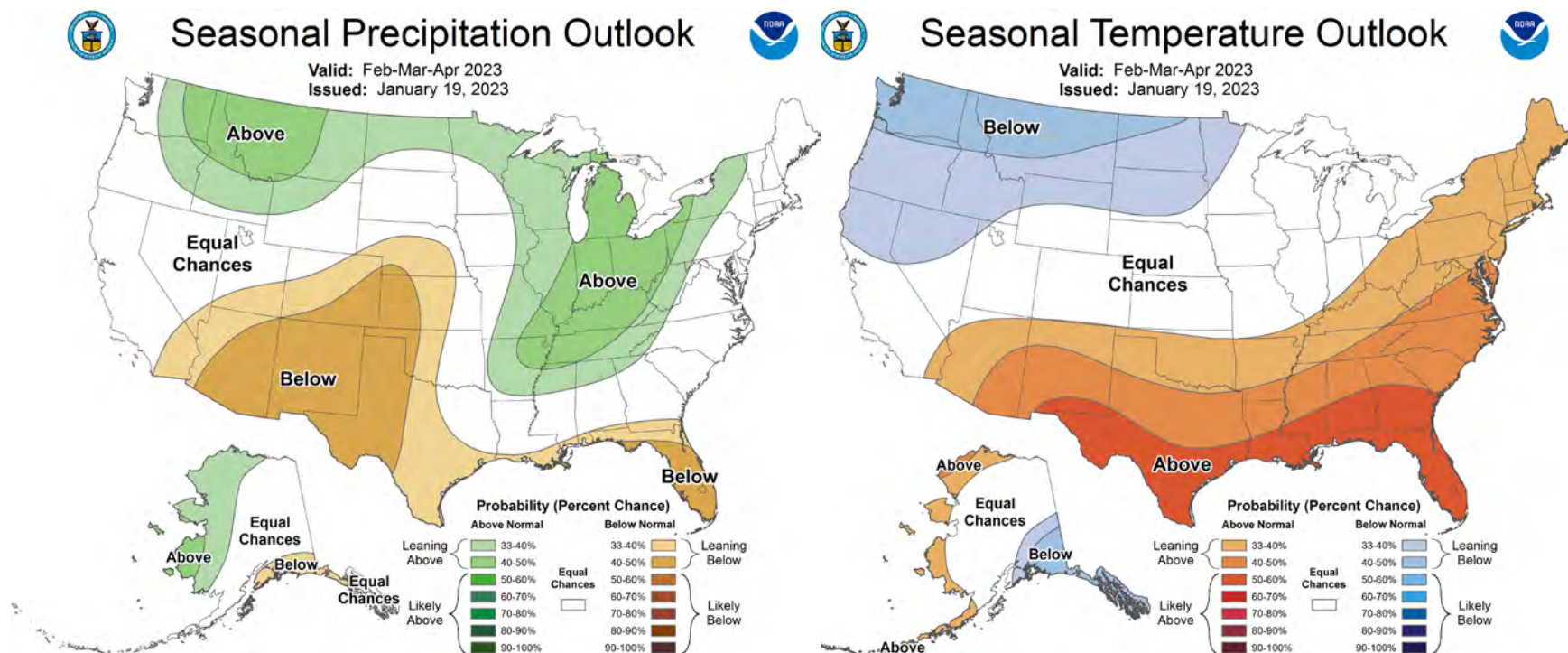
WATER YEAR 2022-2023 CONSUMPTION STATUS

- **There are 34 Customer contracts through which NTMWD currently provides direct water service**
 - 15 appear to be on pace to set a new (higher) minimum

Customer	% Annual Min. Aug-Jan	On pace to set new Annual Min.
Ables Springs SUD	52%	X
Bear Creek SUD	61%	X
BHP WSC	56%	X
Caddo Basin SUD	54%	X
College Mound SUD	84%	X
Copeville SUD	56%	X
Fairview	54%	X
GTUA	70%	X
Josephine	63%	X
Kaufman	52%	X
Lucas	55%	X
Nevada SUD	56%	X
N. Collin SUD	55%	X
Parker	53%	X
Terrell	55%	X



3-MONTH OUTLOOK (NWS CLIMATE PREDICTION CENTER)



La Niña Advisory (2/09/2023): Weak La Niña still apparent during January but transition to neutral conditions is expected to begin in the coming months and persist through spring.



AGENDA

Discussion Items

- D. Discuss Mt. Zion Water Supply Corporation's water contract**
- E. Discuss Sulphur River Municipal Water District water supply contract**

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 Executive Session are privileged and should remain confidential.



AGENDA

ADJOURN EXECUTIVE SESSION

Discussion Items

- F. Opportunity for Committee members to provide feedback on Water Committee meeting or request potential future agenda items**

Adjournment