



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

WATER COMMITTEE MEETING

JANUARY 25, 2023 (Via Videoconference)

Bois d'Arc Lake



AGENDA

ACTION ITEMS

- A. Consider approval of Water Committee meeting minutes – December 14, 2022**
- B. Authorize execution of an interlocal agreement (ILA) with Tarrant Regional Water District - Administrative Memorandum No. 5885**
 - Consider recommendation on authorizing the Executive Director to execute an ILA with Tarrant Regional Water District in the amount of \$90,000 for a conceptual level study to evaluate the potential for collaboration on the Cedar Creek Wetlands project
- C. Authorize award of construction contract and inspection services on the East System Control Valve project - Administrative Memorandum No. 5886**
 - Consider recommendation on authorizing award of construction contract with MELA Contracting Inc., in the amount of \$4,109,000 and authorizing internal inspection services in the amount of \$450,000 for Project No. 101-0604-22, East System Control Valve

DISCUSSION ITEMS

- A. Strategic Plan Objective 1.1, Initiative 1.1.3 – Pursue Treatment Plant Optimization Recognition update: American Water Works Association Partnership for Safe Water**
- B. 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 –
December 14, 2022**

Recommend approval of Water Committee meeting minutes



AGENDA

Action Items

B. Authorize execution of an interlocal agreement (ILA) with Tarrant Regional Water District - Administrative Memorandum No. 5885

- Consider recommendation on authorizing the Executive Director to execute an ILA with Tarrant Regional Water District in the amount of \$63,000 for a conceptual level study to evaluate the potential for collaboration on the Cedar Creek Wetlands project*

What: Authorize an Interlocal Agreement (ILA) with Tarrant Regional Water District (TRWD) to study conceptual level options for incorporating NTMWD's available treated return flows into the TRWD's Cedar Creek Wetlands Project.



ILA WITH TRWD ON CEDAR CREEK WETLANDS

- **Additional Wetlands with indirect reuse is a strategy of NTMWD in the Long Range Water Supply plan**
- **TRWD entered into design phase of the new Cedar Creek Wetlands project to provide additional water supply with treated return flows**
- **NTMWD anticipates having access to return flow volumes in excess of the capacity of East Fork wetlands**
- **Location of the proposed wetlands to NTMWD facilities and projected increase in future treated return flows could be beneficial to both TRWD and NTMWD**
- **ILA will allow NTMWD and TRWD to determine feasibility of partnering on the Cedar Creek Wetlands Project**



ILA WITH TRWD ON CEDAR CREEK WETLANDS

Wetland with Indirect Reuse

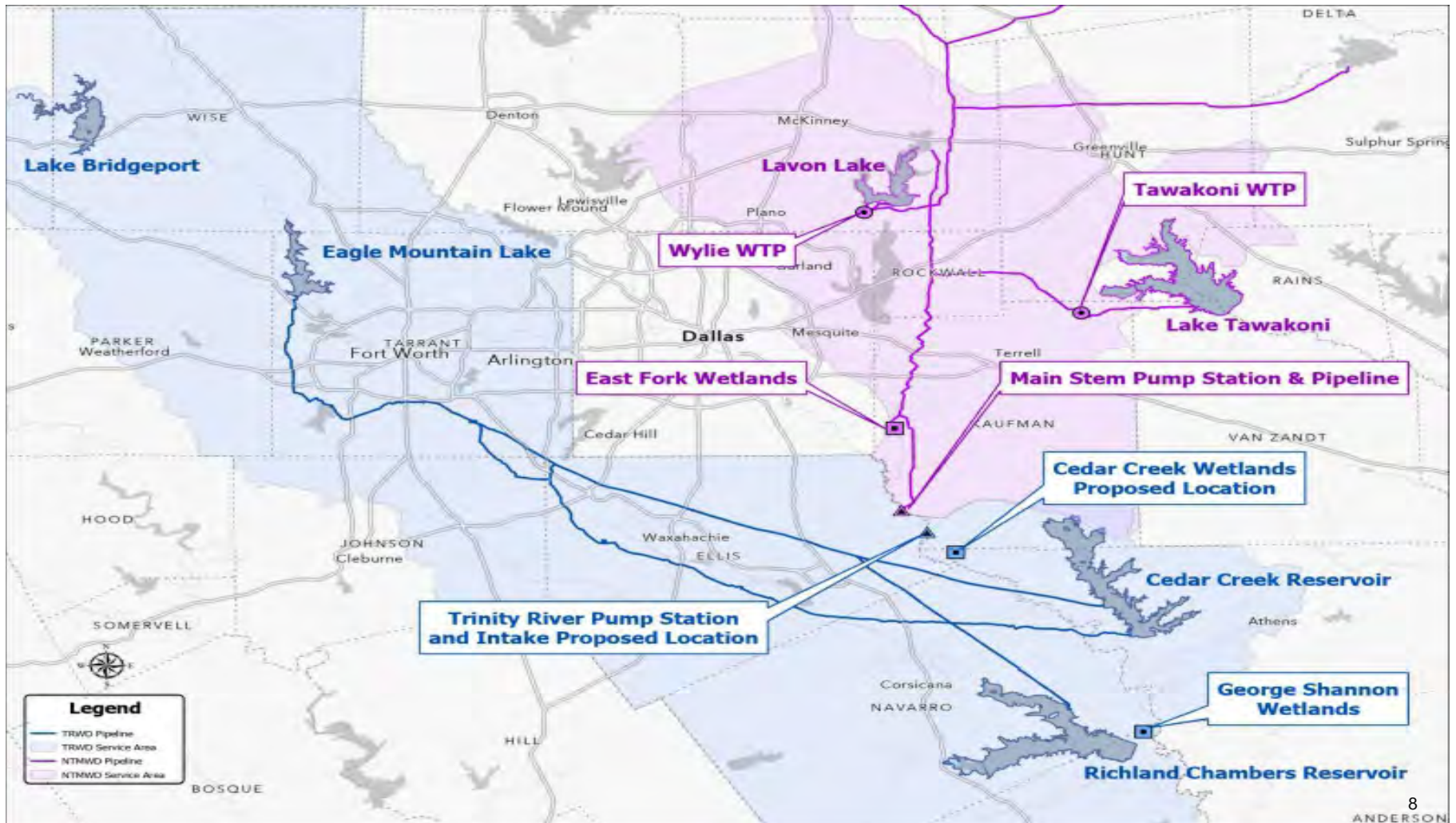
- **Partnership with Tarrant Regional Water District**
- **Multiple reuse strategy options**
 - All rely on the same source water
 - Only one can be developed)
- **Cedar Creek Wetlands location ideal for NTMWD additional return flows**

Quantity	~9 to 33 MGD (grows over time)
Years of Supply	1-4



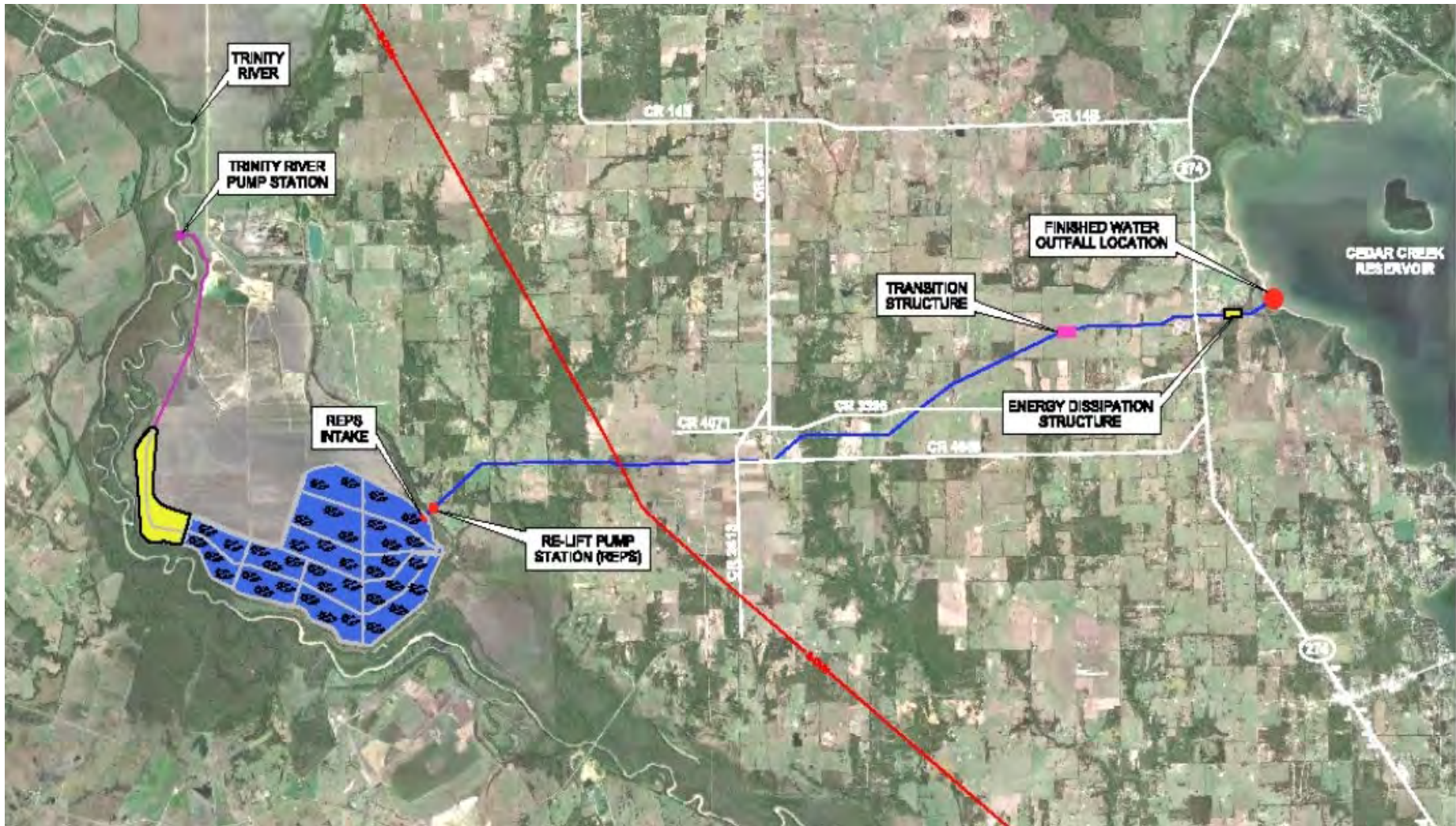
ILA WITH TRWD ON CEDAR CREEK WETLANDS

NTMWD and TRWD Facilities





CEDAR CREEK WETLANDS CONCEPTUAL DESIGN





RECOMMENDATION

The Executive Director and NTMWD staff recommend the Board of Directors to authorize the Executive Director to execute an ILA as follows:

Contracting

Party:

NTMWD and TRWD

Purpose:

Execution of Interlocal Agreement

Amount:

NTMWD Share - \$63,000 (Total Contract - \$90,000)

Strategic

Objectives:

1.4 Reliable and Resilient system and 3.3 Durable Strategic Partnerships



Mark Simon

AGENDA

Action Items

C. Authorize award of construction contract and inspection services on the East System Control Valve project - Administrative Memorandum No. 5886

- Consider recommendation on authorizing award of construction contract with MELA Contracting Inc., in the amount of \$4,109,000 and authorizing internal inspection services in the amount of \$450,000 for Project No. 101-0604-22, East System Control Valve

What: Authorize award of a construction contract and internal inspection services for the installation of the East System Control Valve on the Wylie Water Treatment Plant site.



EAST SYSTEM CONTROL VALVE

- **Provide hydraulic control of pump station discharge to increase flow into the East Transmission System under certain demand conditions**
- **Supplements existing flow control to allow redirection of more flow with minimal additional infrastructure**
- **Includes:**
 - **Short run of parallel 48-inch pipe and connection to 90-inch header**
 - **Flow control valve**
 - **Magnetic flow meter**
 - **SCADA integration**
 - **8-inch water line relocation**
 - **Concrete pad and driveway**



EAST SYSTEM CONTROL VALVE

- **Outreach conducted to attract bidding competition**
- **Only two bids received – many potential bidders were busy with conflicting pursuits**

	Total Bid	Recommendation
MELA Contracting	\$4,109,000	Lowest responsible bid
Felix Construction	\$4,611,600	
Engineer's OPCC	\$2,888,000	

- Both bidders have proven capabilities
- Close bids suggest common understanding of job and similar outlook for required effort and market conditions



RECOMMENDATION

The Executive Director, NTMWD staff and Pape-Dawson Engineers, Inc. recommend the Board of Directors authorize the award of a construction contract as follows:

Contractor: MELA Contracting, Inc.

Scope: Construction

Project: No. 101-0604-22, East System Control Valve

Amount:	Construction Contract:	\$4,109,000
	Internal Inspection Services:	\$ 450,000

Strategic Objective: 1.1 High quality services



AGENDA

Discussion Items

- A. Strategic Plan - Objective 1.1, Initiative 1.1.3 – Pursue Treatment Plant Optimization Recognition update: American Water Works Association Partnership for Safe Water**



STRATEGIC PLAN GOALS AND OBJECTIVES

Goal 1 : Service

Objective 1.1 – High Quality Service

- **Initiative 1.1.3 – Pursue Treatment Plant Optimization Recognition**
- Operations to pursue state and national optimization programs that recognize the District’s commitment to provide high quality services to our customers and highlight our culture of continuous improvement.
 - Plant IV recently awarded Texas Optimization Program 5-year award for surface water treatment plants
- Pursuit of these programs at all water treatment facilities



INITIATIVE 1.1.3 – PURSUE TREATMENT PLANT OPTIMIZATION RECOGNITION

Partnership for Safe Water (PSW)

- Established in 1995 to address *Cryptosporidium* concerns originating from Milwaukee
- Partner organizations:



**American Water Works
Association**

Dedicated to the World's Most Vital Resource



**ASSOCIATION OF
METROPOLITAN
WATER AGENCIES**



THE
**Water
Research**
FOUNDATION



Association of State
Drinking Water Administrators



National Association
of Water Companies



INITIATIVE 1.1.3 – PURSUE TREATMENT PLANT OPTIMIZATION RECOGNITION

Partnership for Safe Water

Mission

- To improve the quality of drinking water delivered to customers of community water systems by optimizing operations
- **Two programs**
 - Treatment plant optimization
 - Distribution system optimization

Treatment program phases

- **Phase I: Commitment**
- **Phase II: Baseline & Annual Data Collection**
- **Phase III: Self Assessment**
 - Completion of report basis for Directors Award
- **Phase IV: Fully Optimized System (Optional)**
 - Excellence in Water Treatment Award
 - Presidents Award



INITIATIVE 1.1.3 – PURSUE TREATMENT PLANT OPTIMIZATION RECOGNITION

Partnership for Safe Water Program Benefits

Optimized operations and improved water quality

- Access to program procedures, software and manuals to implement and monitor water quality improvements.
- Combined filter effluent turbidity reduced by an average of over 60 percent.
- Utility subscribers incorporate the program's protocols to effectively identify system limitations and issues

Recognition by Customers

- Participation in the program demonstrates your commitment to water quality and public health for consumers

Regulatory Confidence

- Utility participation in this unique program assures regulators, at all levels, that the highest level of operation is achieved by performance optimization.



INITIATIVE 1.1.3 – PURSUE TREATMENT PLANT OPTIMIZATION RECOGNITION

Partnership for Safe Water

Phase III Criteria

Two main treatment process

- **Filtration**
 - TCEQ regulatory limit of 95th percentile < 0.3 NTU
 - PSW limit 95th percentile <0.1 NTU
- **Sedimentation**
 - No TCEQ limit but it is reported
 - PSW sets at 95 percentile <2 NTU
- **Program evaluates all plant processes**
- **Adherence to PSW criteria surpasses TCEQ/EPA regulations**

NTU = nephelometric turbidity unit
(measures presence of suspended solids)



INITIATIVE 1.1.3 – PURSUE TREATMENT PLANT OPTIMIZATION RECOGNITION

Partnership for Safe Water - Phase III Self Assessment

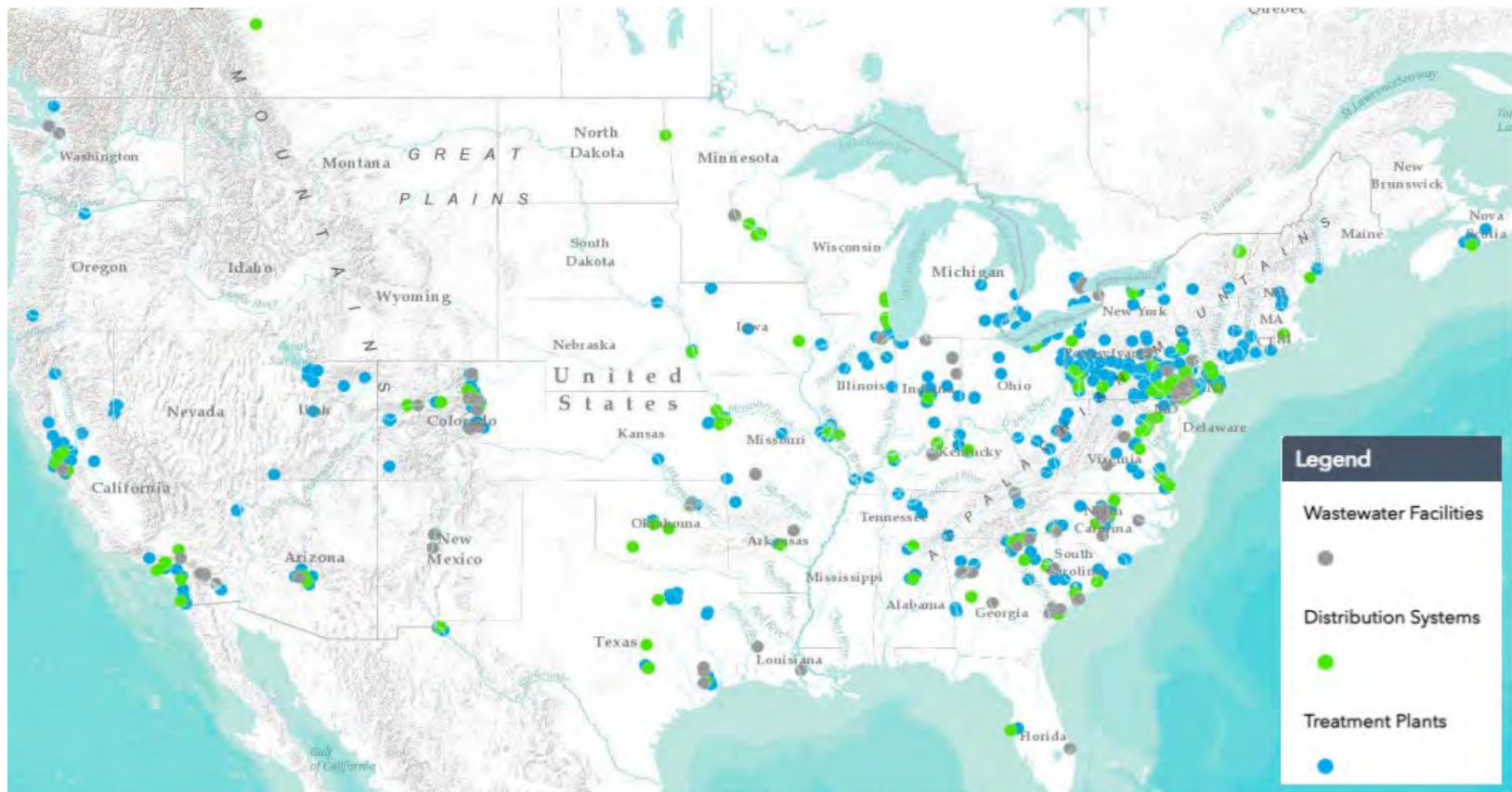
- **Performance**
 - Sampling, data analysis and overall impacts to process
- **Capacity**
 - Treatment process adequate for intended purpose
- **Unit Process**
 - Pre-treatment, coagulation/flocculation, sedimentation, filtration, disinfection
- **Operational Process Control**
 - Goals, procedures and protocols
- **Administrative**
 - Management procedures, staff development and engagement
- **Prioritization of performance limiting factors and action plans**

NTMWD Plant IV Self Assessment: 316-pages



INITIATIVE 1.1.3 – PURSUE TREATMENT PLANT OPTIMIZATION RECOGNITION

- 250 Utilities and over 400 treatment plants in program
- Only 5 other Drinking Water utilities in State of Texas in the Partnership





INITIATIVE 1.1.3 – PURSUE TREATMENT PLANT OPTIMIZATION RECOGNITION

Next Steps

- **Plant IV self assessment reviewed by PSW team**
 - **Anticipate response within next 1-2 months**
- **Anticipate review and award receipt prior to AWWA annual conference (ACE)**
- **Potential award recognition at ACE 2023 Partnership for Safe Water awards ceremony**

Wylie

- **Plant I TOPs and PSW by end of 2023**
- **Plant II and III pending CIP completion**

Leonard

- **Texas Optimization of Surface Water Treatment Plants (TOPs) 2023**
- **PSW end of 2025**

Tawakoni/Bonham

- **TOPs end of 2024**
- **PSW end of 2025**



AGENDA

Discussion Items

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

Adjournment