“Development & Construction of First Major Reservoir in 30 Years”

Tom Kula
Executive Director, North Texas Municipal Water District

NORTH TEXAS MUNICIPAL WATER DISTRICT

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

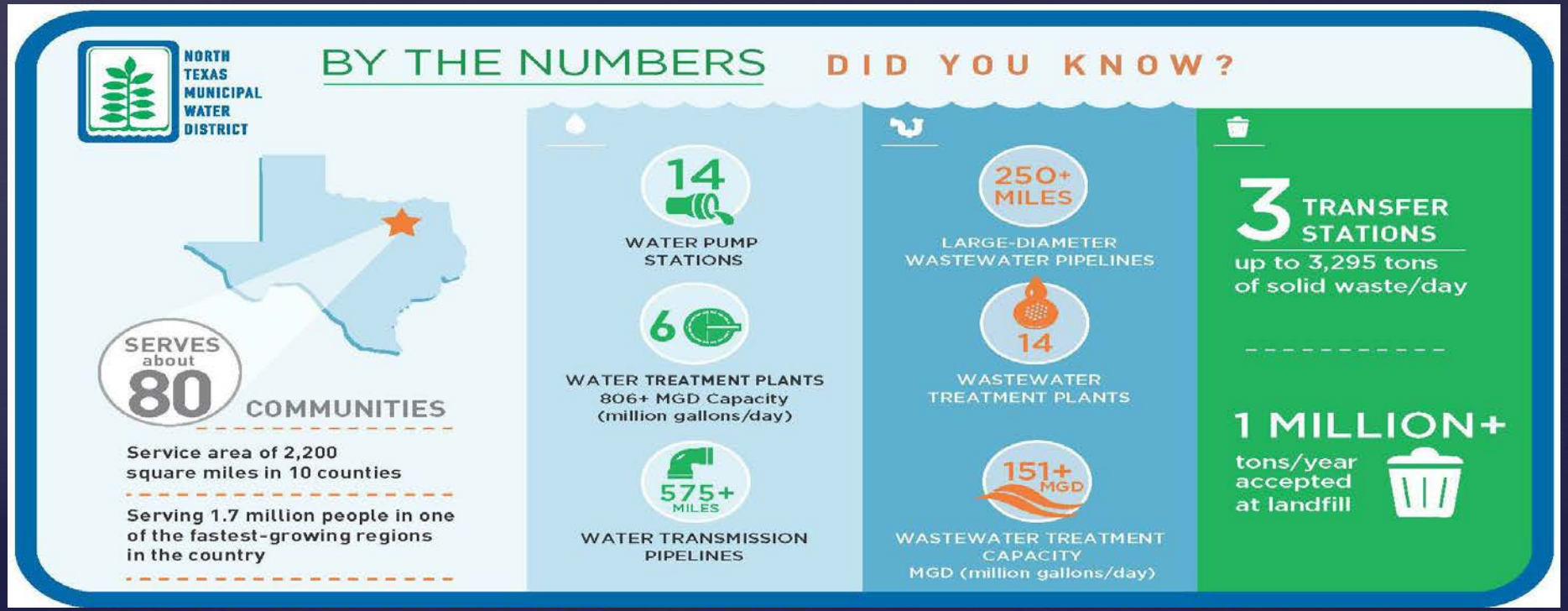
BUILDING FIRST MAJOR RESERVOIR IN TEXAS IN 30 YEARS

GOVERNOR'S CONFERENCE ON THE FUTURE OF WATER IN KANSAS

Nov. 13, 2018

Tom Kula, NTMWD Executive Director

REGIONAL PROVIDER: WATER, WASTEWATER, SOLID WASTE



Water supply infrastructure is the driving force of community and business vitality

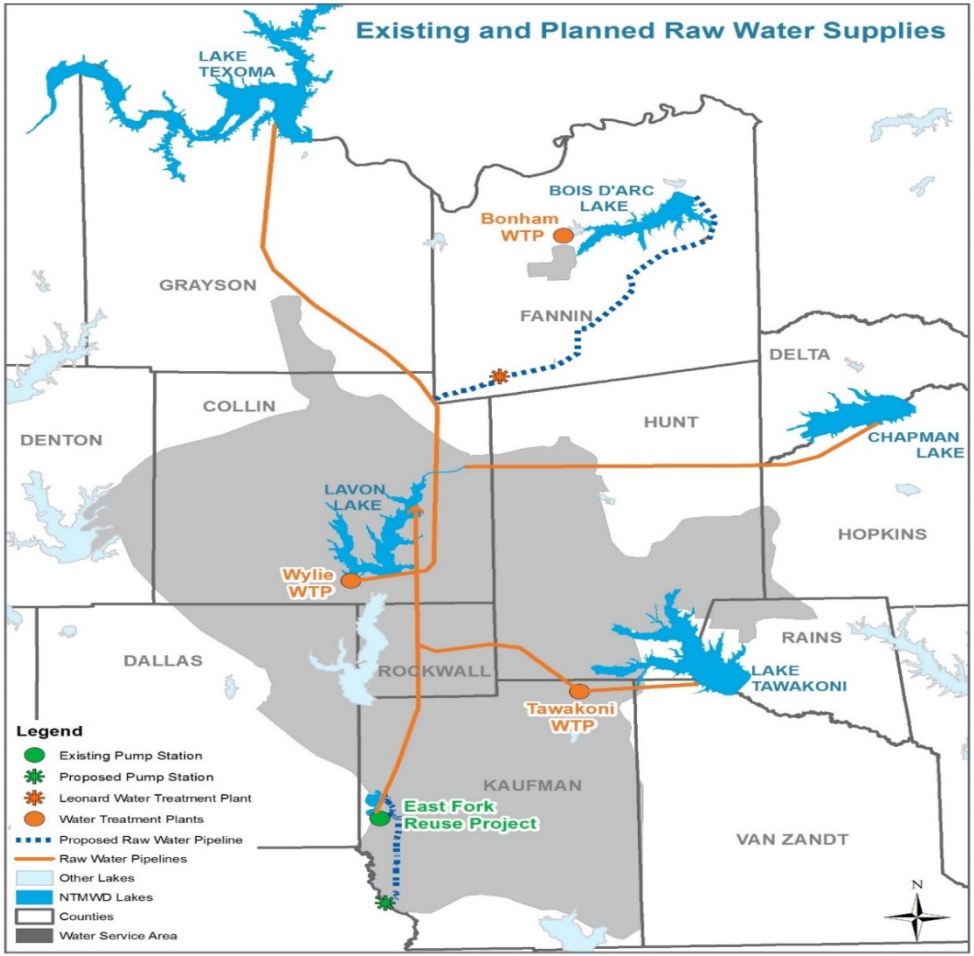
CityLine - Richardson

Watters Creek Convention Center - Allen

The Star - Frisco

Legacy West - Plano

Existing & Planned Raw Water Supplies



Existing:

- Lavon Lake
- Lake Texoma
- Lake Tawakoni
- Chapman Lake
- Reuse/Wetland

In Progress:

- Bois d'Arc Lake in Fannin County

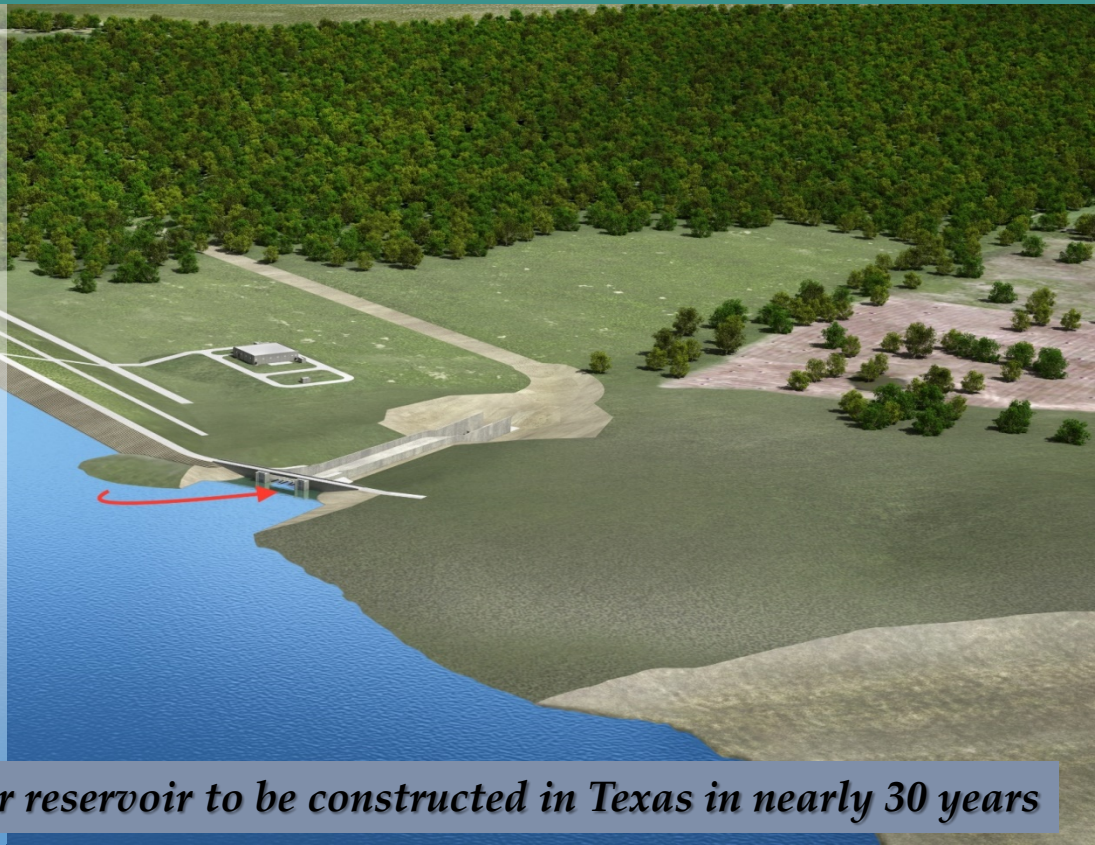
Future Supplies: new reservoir in Fannin County

Bois d'Arc Lake: Why it's Needed

- **Growing communities = growing needs**
- **Population to double in 50 years**
- **Critical part of state water plan**
- **Reservoir will help:**
  - Meet projected North Texas water supply needs through 2040 and beyond
  - Support region's economic growth
  - Better serve Fannin County
  - Provide recreational opportunities

Bois d'Arc Lake

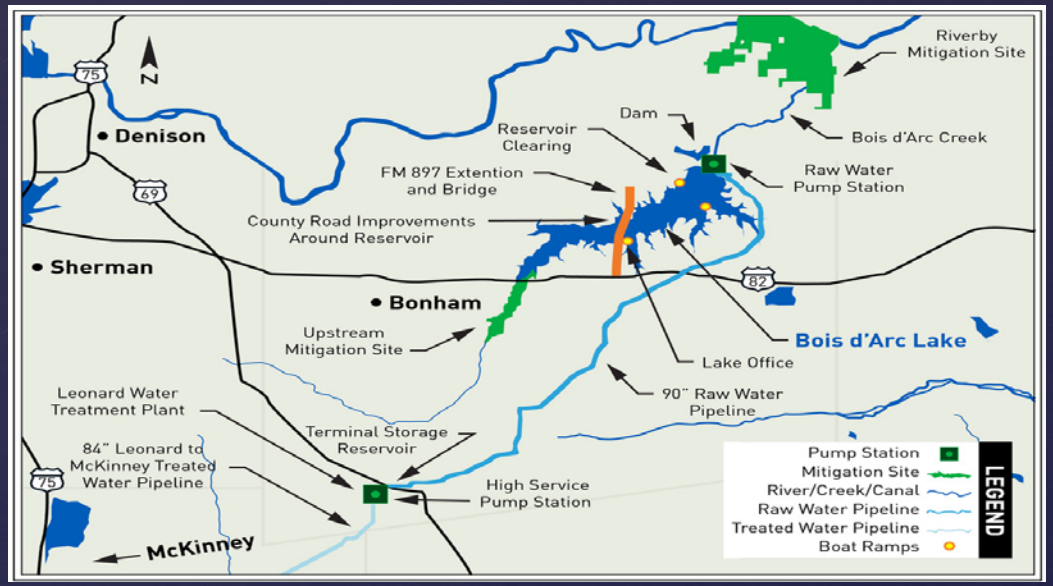
- Decade+ of planning, permitting
- Surface Area: 16,641 acres
- Supply: up to 108 MGD
- Average/ Max Depth: 22/70 ft
- Lake Elevation: 534 ft mean sea level
- Owner & operator: NTMWD
- Cost Estimate: $1.6B
- Permitting Required:
  - TX Water Rights – received June 2015
  - USACE Section 404 – received Feb. 2018
- Construction in progress
- Water delivery in 2022



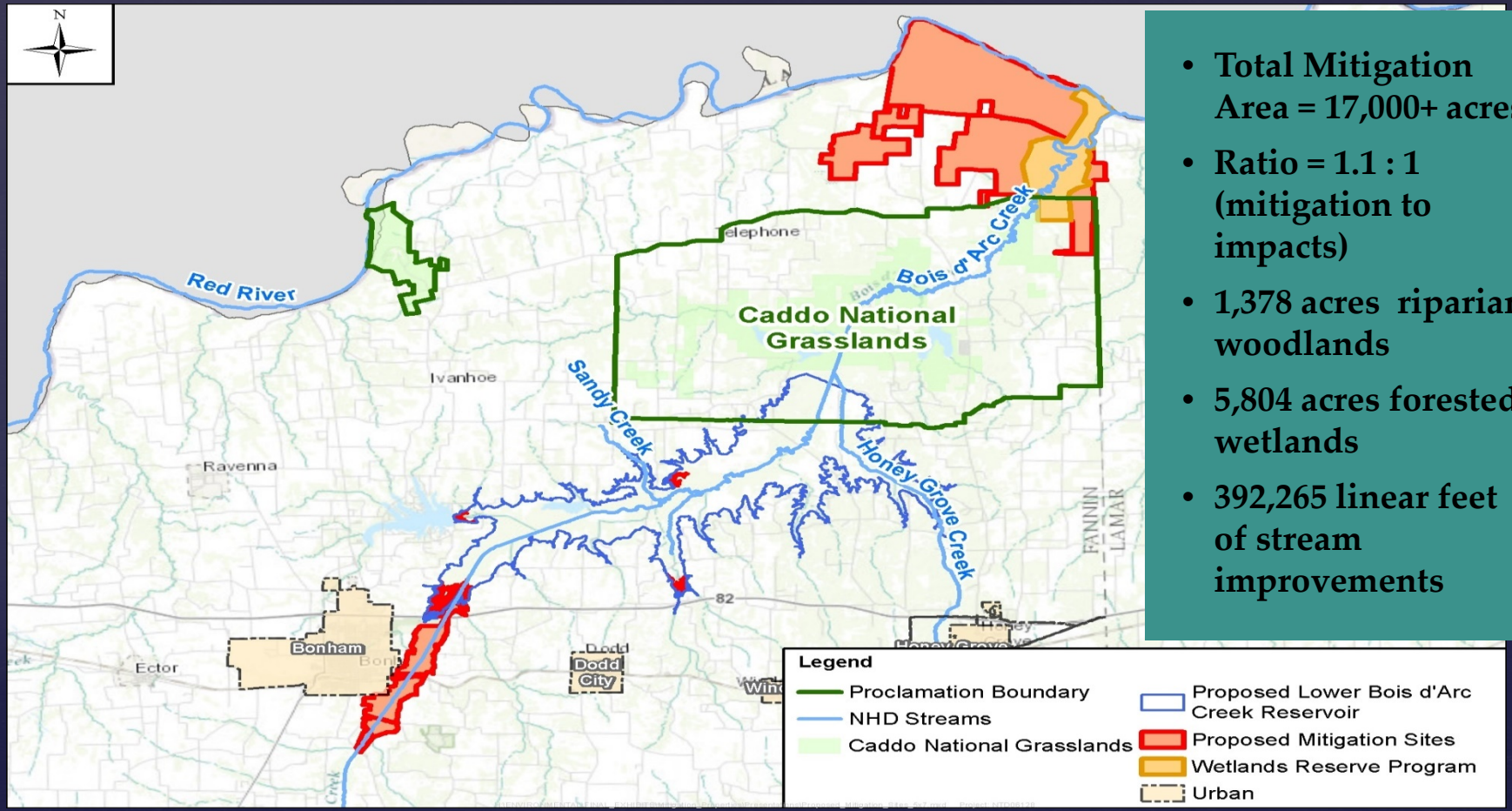
First major reservoir to be constructed in Texas in nearly 30 years

Bois d'Arc Lake: Key Components & Related Infrastructure

1. Dam and intake structure for reservoir
2. 35-mile underground raw water pipeline
3. New water treatment plant (70 MGD initial capacity)
4. Rerouting highway and bridge over lake
5. Required mitigation area (over 17,000 acres)



Bois d'Arc Lake: Planned Mitigation



- Total Mitigation Area = 17,000+ acres
- Ratio = 1.1 : 1 (mitigation to impacts)
- 1,378 acres riparian woodlands
- 5,804 acres forested wetlands
- 392,265 linear feet of stream improvements

BOIS D'ARC LAKE
CONSTRUCTION PHOTOS

Clearing Footprint of Dam

Two-mile-long, 90-foot-tall earthen embankment dam with a bentonite slurry trench

BOIS D'ARC LAKE
CONSTRUCTION PHOTOS

Excavation for Raw Water Intake Pipe

Planning Fish Habitat Structures in Lake

BOIS D'ARC LAKE
CONSTRUCTION PHOTOS

FM 897 Bridge over Future Lake

PERMITTING REFORM RECOMMENDATIONS

OPTIMIZE EXISTING SUPPLIES

- Connect existing supplies and find ways to retain floodwaters

STREAMLINE PERMITTING

- Unnecessary delays from changeover in people, policies, concepts and procedures – process should only take 2-3 years

STATUTE OF LIMITATIONS TO PERMIT CHALLENGES

- Should be shortened to 180 days vs. 5+ years to avoid further delays of litigation

FEDERAL FUNDING FOR SUPPLY PROJECTS

- Water supply lowest priority and lowest funded program of USACE – need Congress to approve more funding and resources

ESTABLISHING PURPOSE & NEED

- Population and demand projections developed/approved by state should be sufficient

USE OF BEST AVAILABLE INFORMATION

- Applicants shouldn't be required to develop new or updated information late in permitting process – recommend statutory deadline.
- Applicant and agencies should have binding agreement on impact assessment methods required for evaluation.

COMPENSATORY MITIGATION

- Environmental benefits of supply projects should be considered as offsets to impacts

KEYS TO SUCCESS

- Reservoirs are an absolute necessity and we've stayed focused on:
  - PROTECTING ENVIRONMENT
  - SMART DEVELOPMENT
  - PROVIDING ESSENTIAL SERVICES TO NORTH TEXANS… WATER IS LIFE
- Initiate and build relationships to coordinate with state and federal agencies early in process
- Assemble dream team – get right resources/expertise in place to support
- Get support from city, state and federal elected officials – keep informed along the way
- Identify and offer win-win solutions for stakeholders

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