

Water Supply Update

January 26, 2012

Topics

- Water Supply Update
 - Lake Texoma Status
- Weather Forecast
- Lake Level Modeling
- Water Use Goals & Performance
- Drought Response Actions
 - City of Dallas Interim Supply
 - Texoma Pipeline Extension
 - Trinity Main Stem Pipeline & Pump Station
- Drought Stage Recommendation

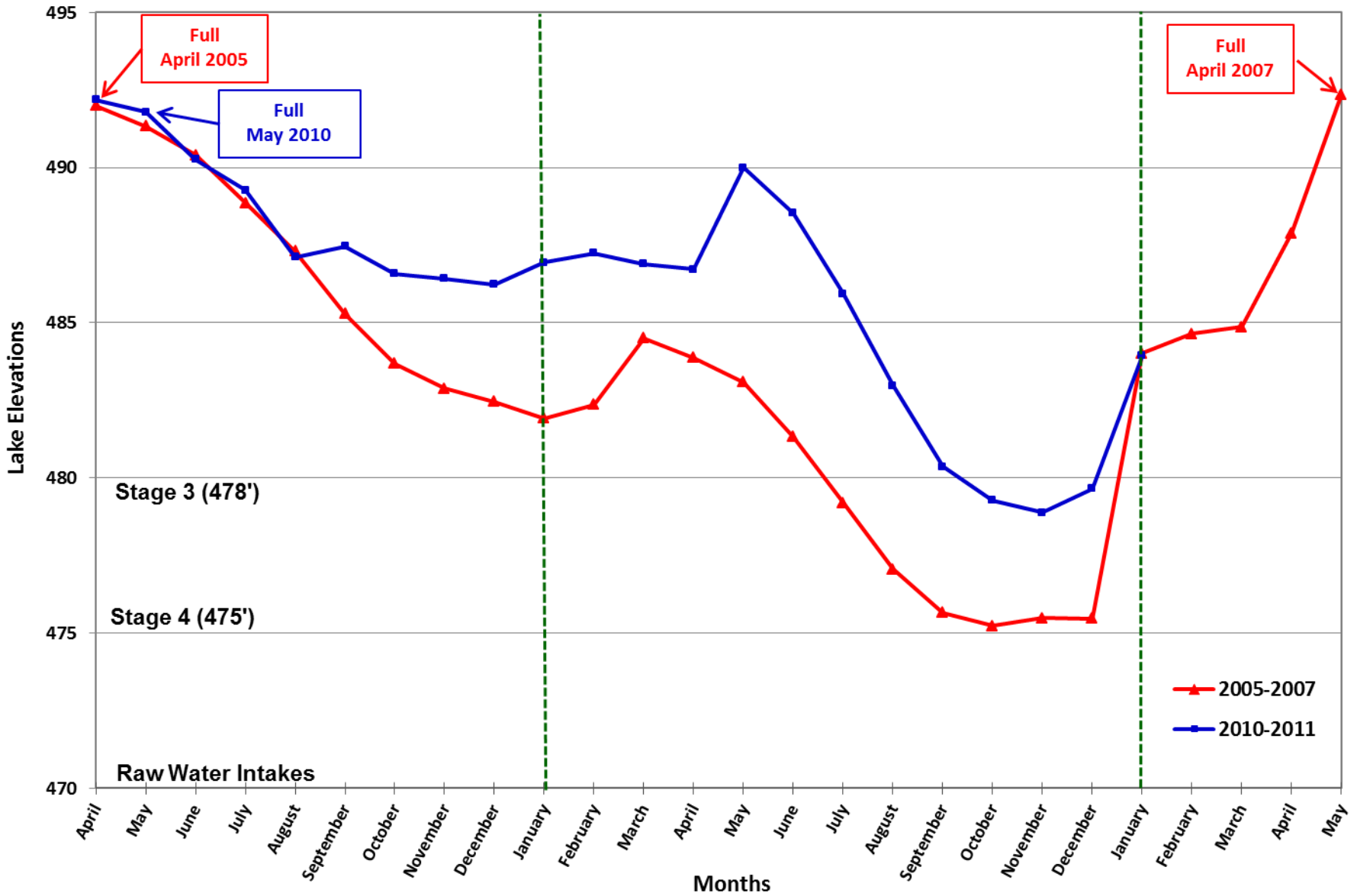
NTMWD Reservoir Elevations

January 26, 2012

Reservoir	Conservation Pool Elevation	Current Elevation	Down	NTMWD's Storage Capacity %
Lavon	492.0'	483.82'	8.18'	64
Chapman	440.0'	429.96'	10.04'	15
Tawakoni	437.5'	432.15'	5.35'	79
Texoma	617.0'	614.79'	2.21'	100*

* Not available due to Zebra mussel infestation

Lake Lavon Elevations by Month



Lake Texoma Update

- USACE approval for seasonal pumping
 - Received draft 12/22
 - Resolving technical & legal issues
 - Met with Tulsa District Commander on 1/19
- Pipeline & pumps
 - Pipeline ready for pigging
 - Pumps ready for installation
- Sampling
 - **Veligers are still present**

Congressional Assistance

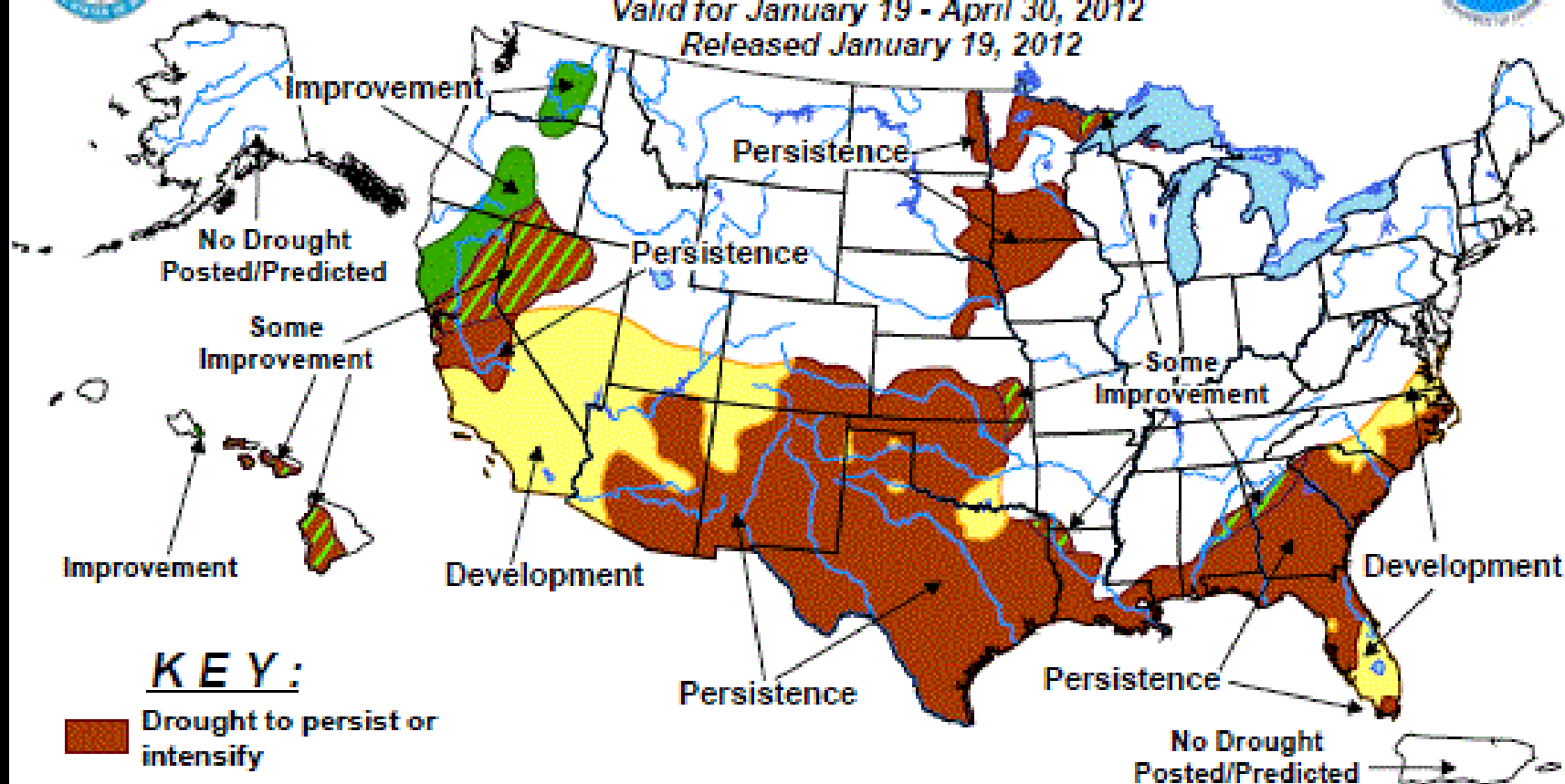
- Preparing legislation seeking relief from Lacey Act
 - Lacey Act states “*can’t transport zebras across state line*”
- Meeting with delegation in mid February
- Earliest legislation could be enacted in fall







U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for January 19 - April 30, 2012
Released January 19, 2012



KEY:

-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance. Use caution for applications – such as crops – that can be affected by such events. “Ongoing” drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

NOAA/National Weather Service

January 5, 2012 La Niña Forecast:

“La Niña likely dissipates sometime between March and May”

Summary of Current Situation

- Full Lake Texoma supply not available
- Upper Sabine Basin supply reduced
- Lake Jim Chapman supply limited
- Temporary diversion permit from Lake Lavon
 - Permit good until 2014

Good News:

- More water in Lake Lavon than in previous worst case analysis:
 - 12/31 – 11,900 acre-feet more in storage than projected
 - 12/31 – Reservoir 0.82 foot higher than projected
 - 1/25 – Recent rainfall will further increase storage
 - Results from more inflow, less evaporation, and/or less demand in December than worst case allow a continuation of Stage 3

Demand Goals

- Goals for Annual Payment Period 2011-12 (October-September)
- Based on use in Annual Payment Period 2010-11
- Contract language:

“If treated water from the system must be rationed, such rationing shall, within the limits permitted by law, be done by the District on the basis of the relative actual total amount of all treated water from the entire System taken by each such Contracting Party, respectively, during the last preceding Annual Payment Period in which rationing by said parties was not necessary.”
- Reductions due to drought measures:
 - Assume 5 percent Stage 2
 - Assume 10 percent Stage 3
- Goals are for cumulative use in fiscal year

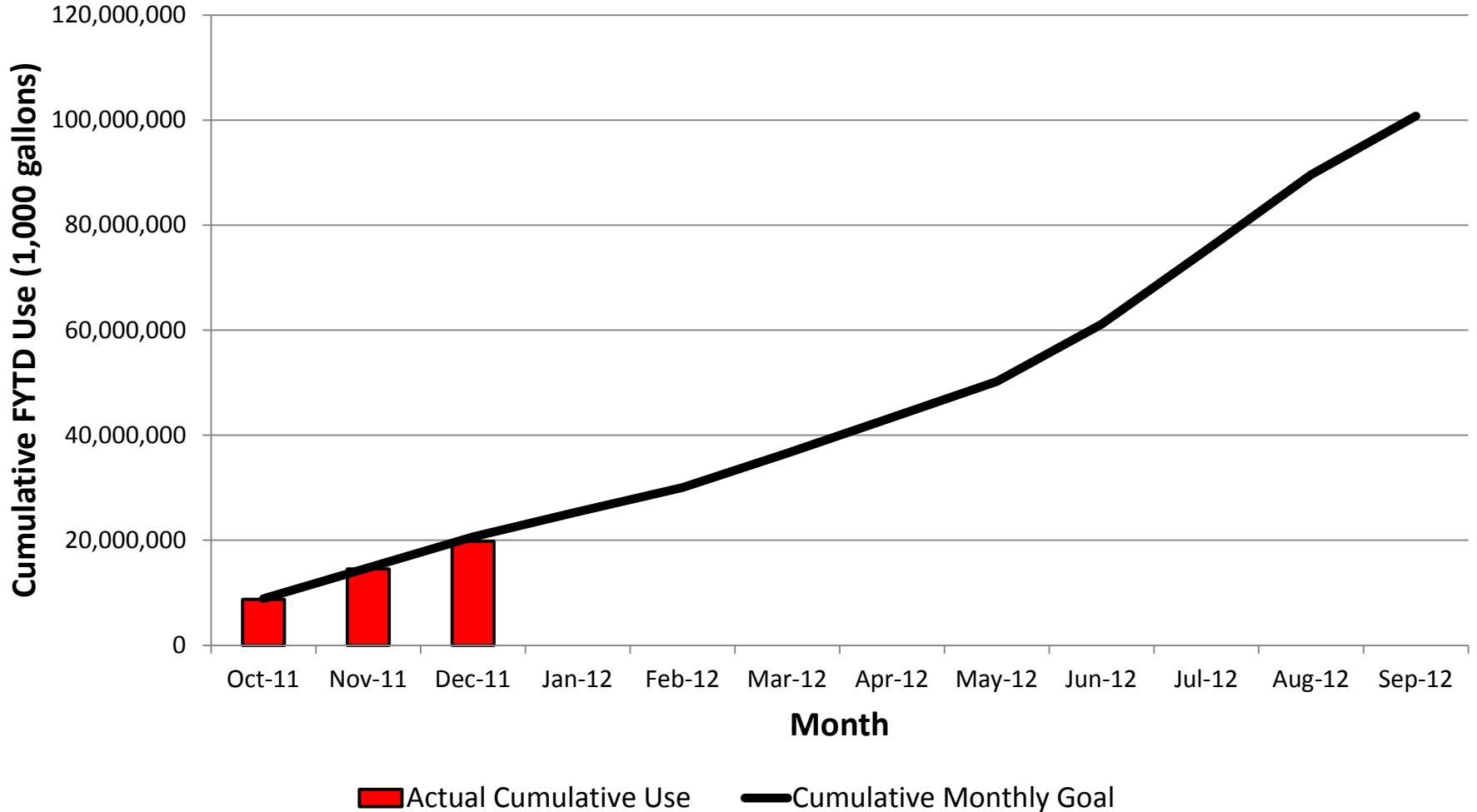
NTMWD Pumping through December 31

North Texas Municipal Water District Raw Water Diversions Annual Payment Period 2012 Water Use Goal and Actual Use

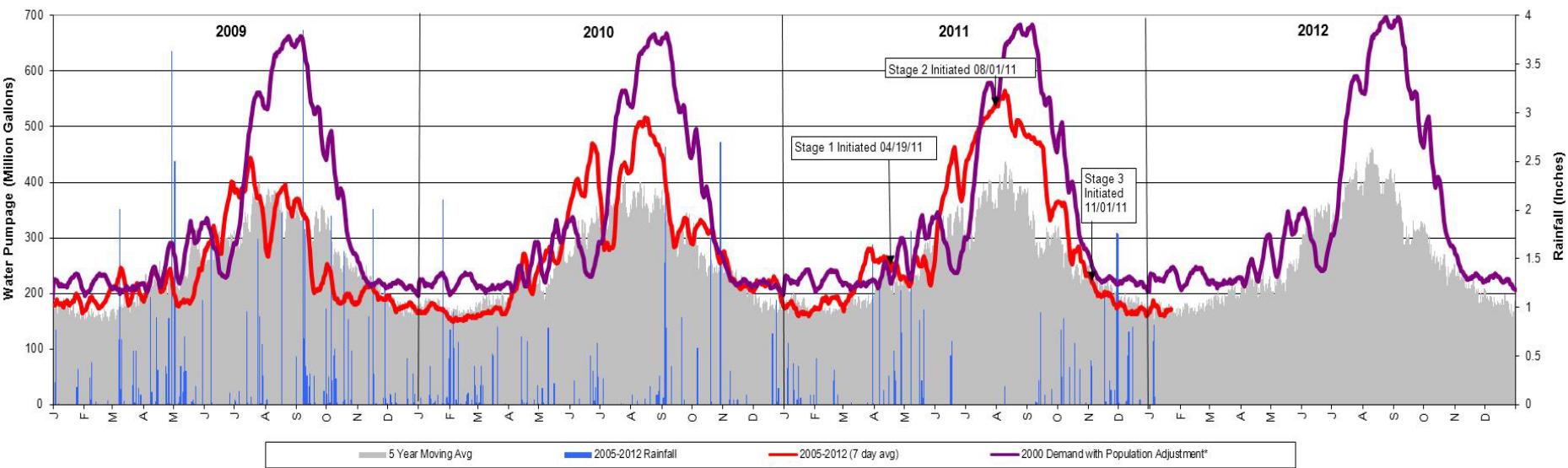
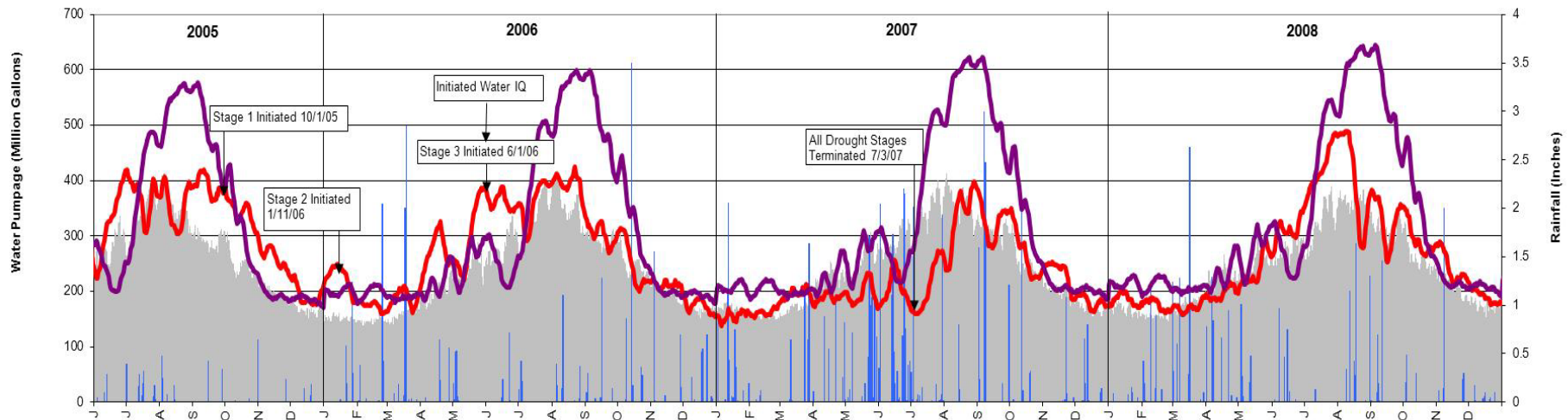
Month	Actual Use in WY 2010-11	Reduction for Goal	Goal for Month	Use in 1000 Gallons			Month Percent Over (Under) Goal	WY 2012 Year to Date Use	WY 2012 Year to Date Use Goal	Year to Date Amount Over (Under) Goal	Year to Date Percent Over (Under) Goal
				WY 2011- 12 Year to Date Use Goal	WY 2012 Use	WY 2012 Year to Date Use Goal					
Oct	9,339,931	5%	8,872,934	8,872,934	8,759,187	(1.3%)	8,759,187	8,872,934	(113,747)	(1.3%)	
Nov	6,556,172	10%	5,900,555	14,773,489	5,768,289	(2.2%)	14,527,476	14,773,489	(246,013)	(1.7%)	
Dec	6,526,956	10%	5,874,260	20,647,749	5,271,193	(10.3%)	19,798,669	20,647,750	(849,081)	(4.1%)	
Jan	5,281,846	10%	4,753,661	25,401,410				25,401,411			
Feb	5,154,984	10%	4,639,486	30,040,896				30,040,897			
Mar	7,297,127	10%	6,567,414	36,608,310				36,608,311			
Apr	7,506,420	10%	6,755,778	43,364,088				43,364,089			
May	7,622,692	10%	6,860,423	50,224,511				50,224,512			
Jun	12,147,259	10%	10,932,533	61,157,044				61,157,045			
Jul	15,652,404	10%	14,087,164	75,244,208				75,244,208			
Aug	15,948,537	10%	14,353,683	89,597,891				89,597,892			
				100,773,430							
Sep	12,417,265	10%	11,175,539	0				100,773,430			

NTMWD Pumping through December 31

Comparison of FY 2012 Water Use and Goal NTMWD Raw Water Diversions



**North Texas Municipal Water District
Year 2000 with Projected Increases vs. 2005-2012 Actual Usage
Daily Water Consumption**



5 Year Moving Avg
 2005-2012 Rainfall
 2005-2012 (7 day avg)
 2000 Demand with Population Adjustment*

* 2000 Demand Plus 22.88% Increase to 2005. Plus 27.77% Increase to 2006. Plus 32.85% Increase to 2007. Plus 37.33% Increase to 2008. Plus 41.45% Increase to 2009. Plus 42.39% Increase to 2010. Plus 45.87% Increase to 2011. Plus 48.79% Increase to 2012.

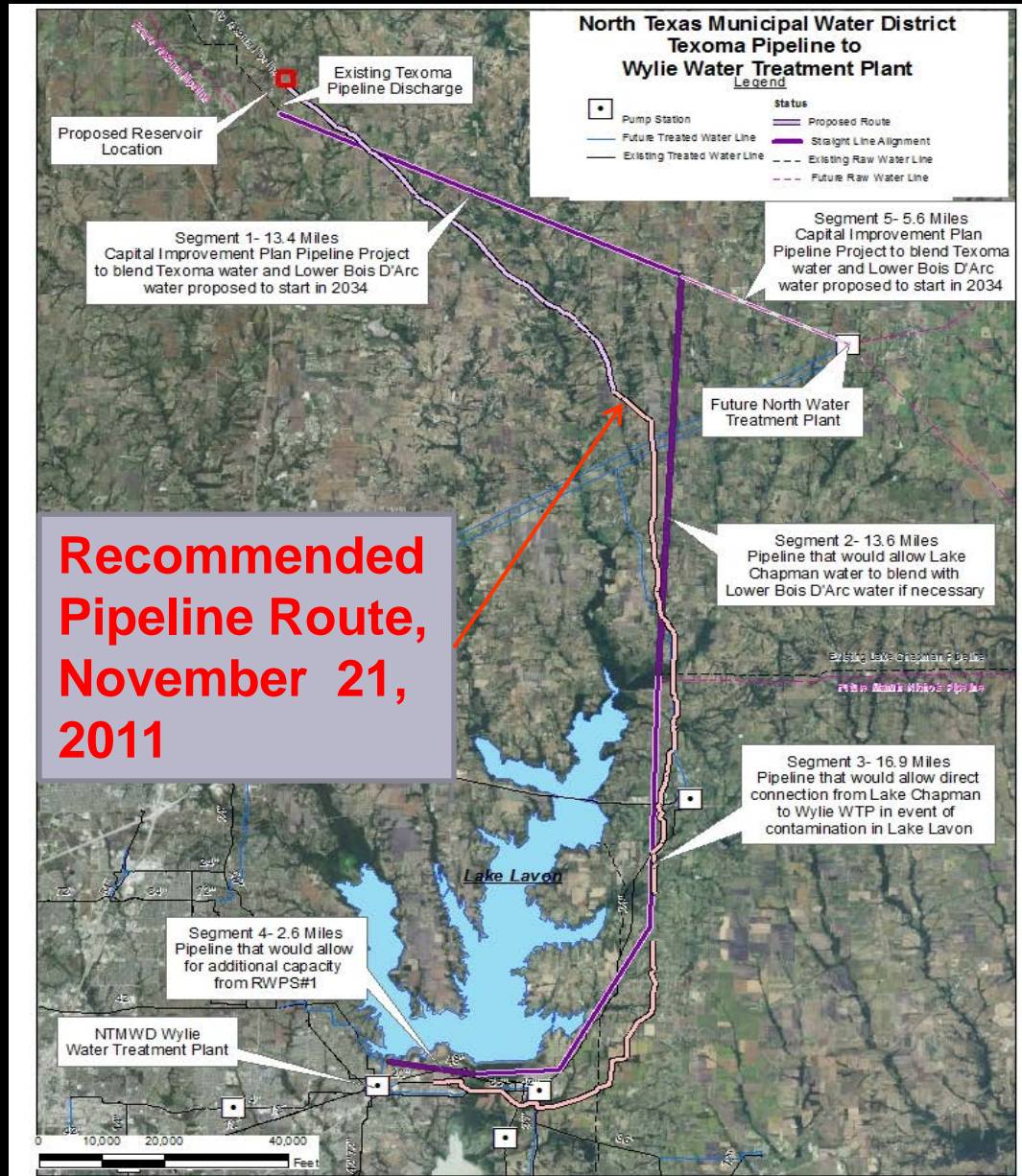
Drought Response Actions

- Dallas Interim Raw Water Supply
- Extend Lake Texoma Pipeline
- Trinity Main Stem Pipeline & Pump Station

Dallas Interim Raw Water Supply

- DWU will recommend an interim contract
 - 60 MGD
 - 3-year term
 - From Tawakoni, Lake Fork, Ray Hubbard & Trinity Main Stem
 - Contract being prepared
 - ❖ Dallas Council briefing scheduled for 2/1
 - ❖ Action Item on January Board Agenda

Extend Lake Texoma Pipeline

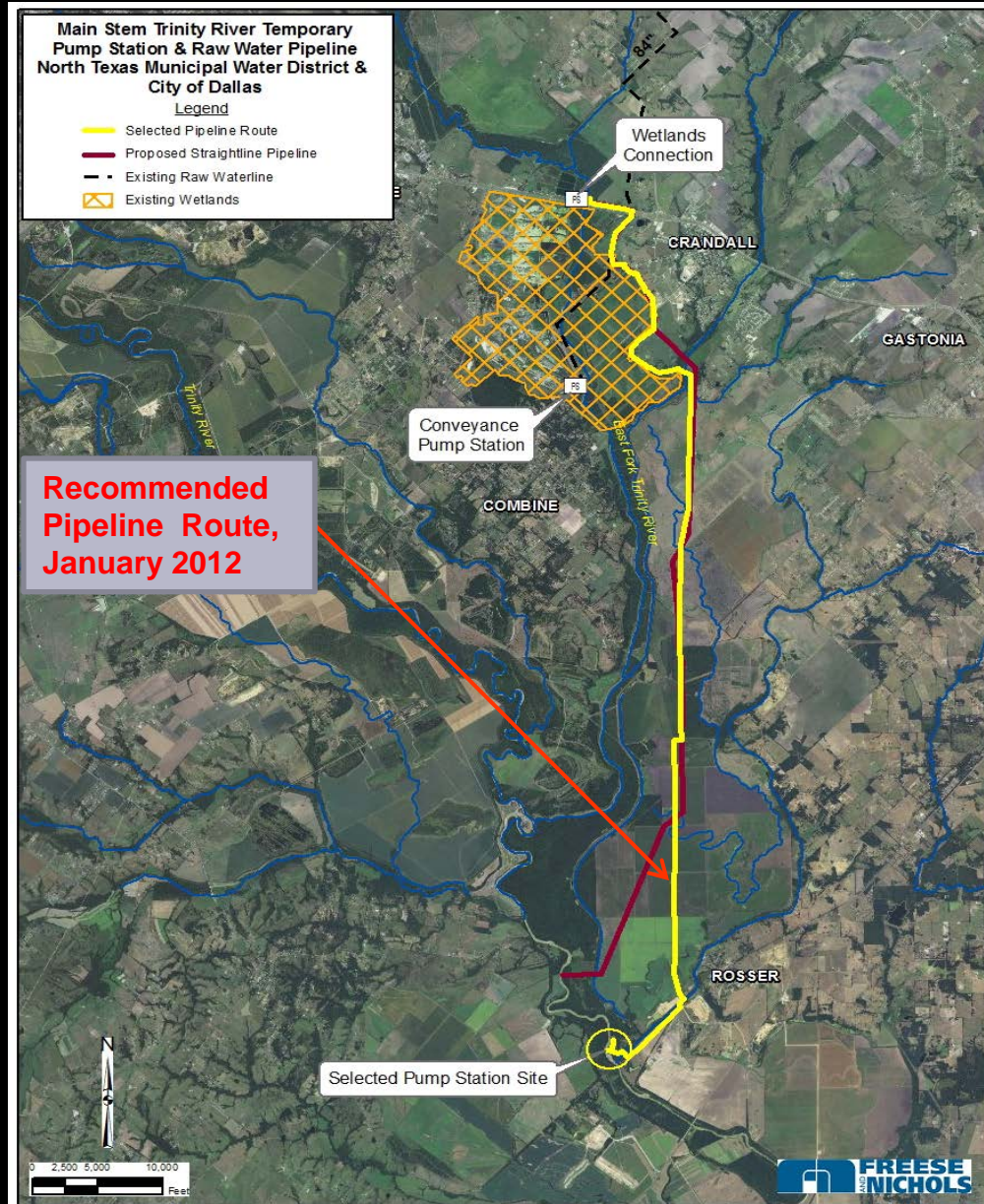


Extend Lake Texoma Pipeline

Key Project Milestones to Date

- 20+ pipeline alignments evaluated over 48 mile pipeline length
- Right-of-entry gained from over 300 property owners
- Option contract on balancing reservoir site
- Aerial survey completed
- Property boundary survey complete
- Concept to connect to Wylie WTP developed
- Construction Manager at Risk (CMAR) selected for project
 - Board consideration at January Board meeting

Main Stem Pipeline & Temporary Pump Station



Main Stem Pipeline & Temporary Pump Station

Key Project Milestones to Date

- Evaluated 13 alignment alternatives. Final alignment determined
- Evaluated 3 pump station sites. Final pump station site selected.
- Field visits by environmental personnel & archaeological group.
- Aerial surveys were conducted.
- CMAR project delivery is being utilized to expedite completion.
 - CMAR will be considered at January Board meeting.

Path Forward

- Continue with current Stage 3 provisions
- Extend twice per month outdoor watering strategy until June 1st
 - Reduce turf irrigation with focus on trees, shrubs, and foundations
- Continue to evaluate water supply status monthly

Drought Stage Recommendation

- Justification:
 - Recent improvement in long-term weather forecast
 - Historically more rainfall in spring months
 - More inflow into reservoirs than worst-case model predicted
 - January 13th modeling extends Stage 3
 - Dallas interim supply being finalized
 - Most cities are approaching or meeting goals

Path Forward Continued

- To remain in Stage 3 or improve, we need:
 - Normal rainfall pattern
 - Seasonal pumping from Texoma
 - Interim raw water supply from Dallas
 - All Member Cities & Customers meeting or exceeding “Goals”

Questions
