

City Council Work Session Handouts

July 21, 2014

- I. Review and Discuss North Texas Municipal Water District Water Supply Plan and Projects
- II. Review and Discuss the Richardson Hospital Authority Dissolution



Richardson

Water Supply Update

July 21, 2014

- Lake Levels
- Modeling
- Near-Term Water Supply Alternatives
- Longer Term Water Supply Projects
- Ozone Update
- Future Water Rate Projections

Presented By: Mike Rickman & Judd Sanderson





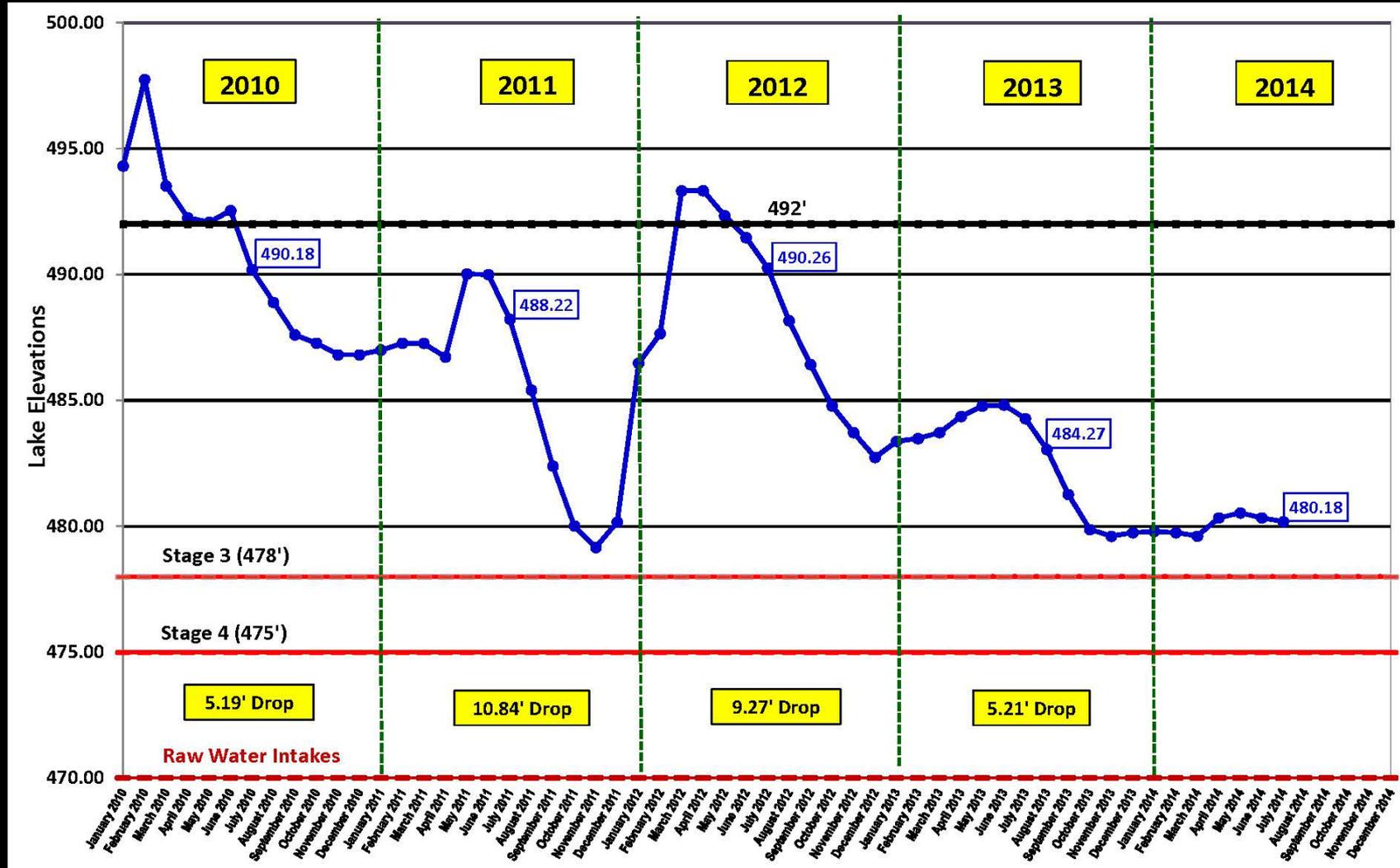
NTMWD Reservoir Elevations (July 18, 2014)

Reservoir	Conservation Pool Elevation	Current Elevation	Down	% of NTMWD's Remaining Supply
Lavon 30%	492.0' (Last full on 5-14-12)	480.18'	-11.82'	38
Chapman 15%	440.0' (Last full on 4-14-10)	431.91'	-8.09'	41
Tawakoni 8%	437.5'	428.00'	-9.50'	50
Texoma 28%	617.0'	611.10'	-5.90	96



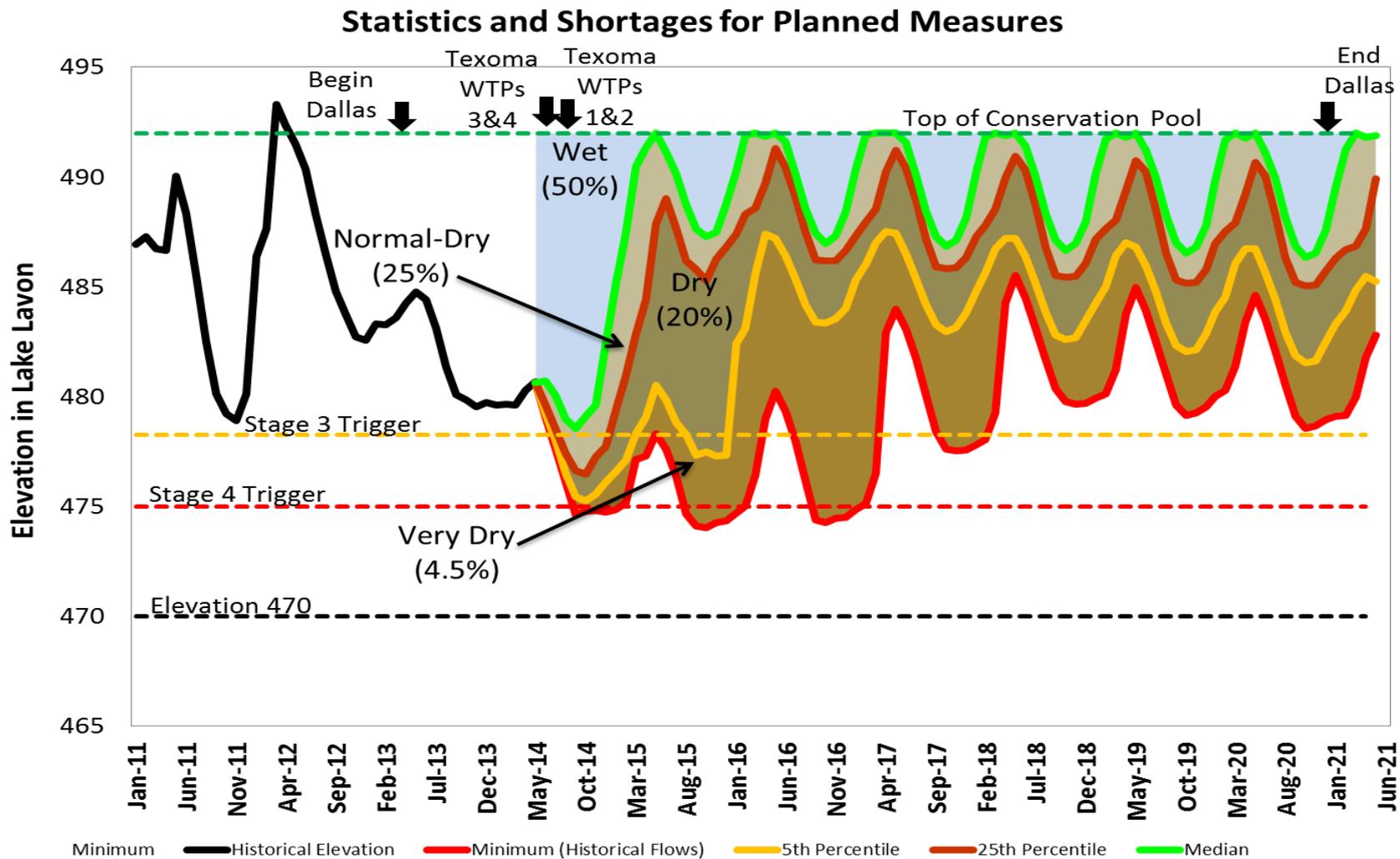


Lake Lavon Elevations by Month





Lake Level Modeling with Planned Measures



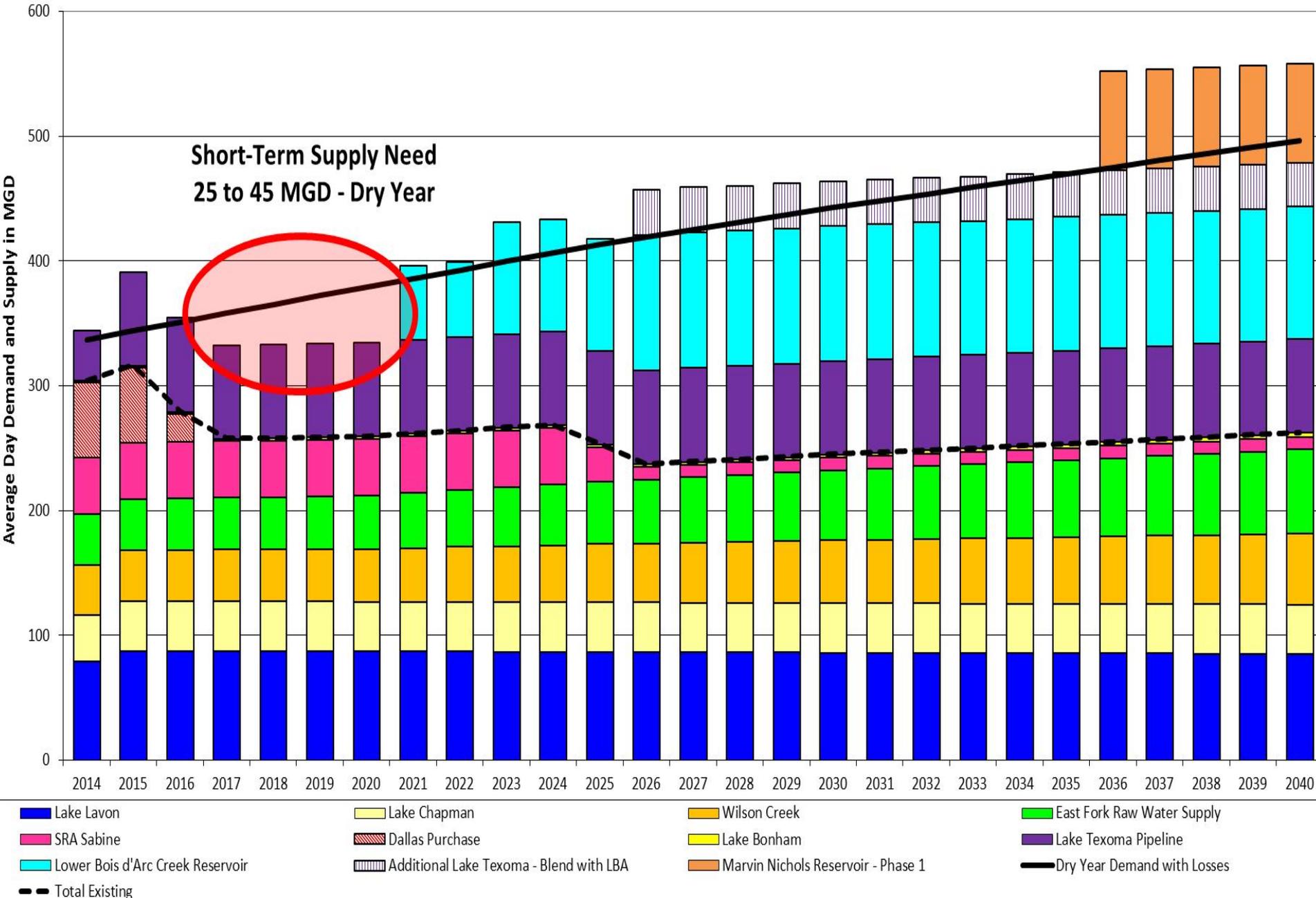


Near-Term Water Supply Plans

- Dallas Interim Purchase
- Lake Texoma Supply
- Dredging Lavon and Chapman
- Main Stem Pump Station
- Lake Texoma Desalination WTP



Projected NTMWD Demands and Supplies without Short-Term Supply 2017-2020



Dallas Contract Extension





Dallas Raw Water Supply

- Executed three year contract with Dallas in May 2013
- Up 60 MGD
- Supplied from:
 - LRH
 - Tawakoni
 - Lake Fork
- Using existing NTMWD infrastructure to deliver
 - Tawakoni WTP
 - Tawakoni pipeline to Lavon
 - Reuse pipeline to Lavon





Dallas Raw Water Supply

- **Extend interim purchase from Dallas until 2020**
 - Dallas staff has concerns
 - Continued reliance on Dallas partnership
 - Cost at least \$10 million per year



Lake Texoma Pipeline Project Update





Pipeline Completion

- **Construction completed November 2013**
- **Pressure testing completed December 2013**



Last pipe joint installed October 22, 2013





Overall Project Cost Summary

Item	Budget (Million)	Current (Million)
CMAR/Construction (Guaranteed Maximum Price set at Jan. 2013 Board mtg)	\$282	\$280
Engineering	\$17	\$17
Land	\$11	\$9
Total	\$310	\$306 +/-





Summary

- Balancing Reservoir – **Complete**
- Pipeline – **Complete**
- Plant Connections/Blending – **100% Complete**



In service:

WTP III/IV - May 2014

WTP I/II - June 2014

Currently using approx. 60 MGD

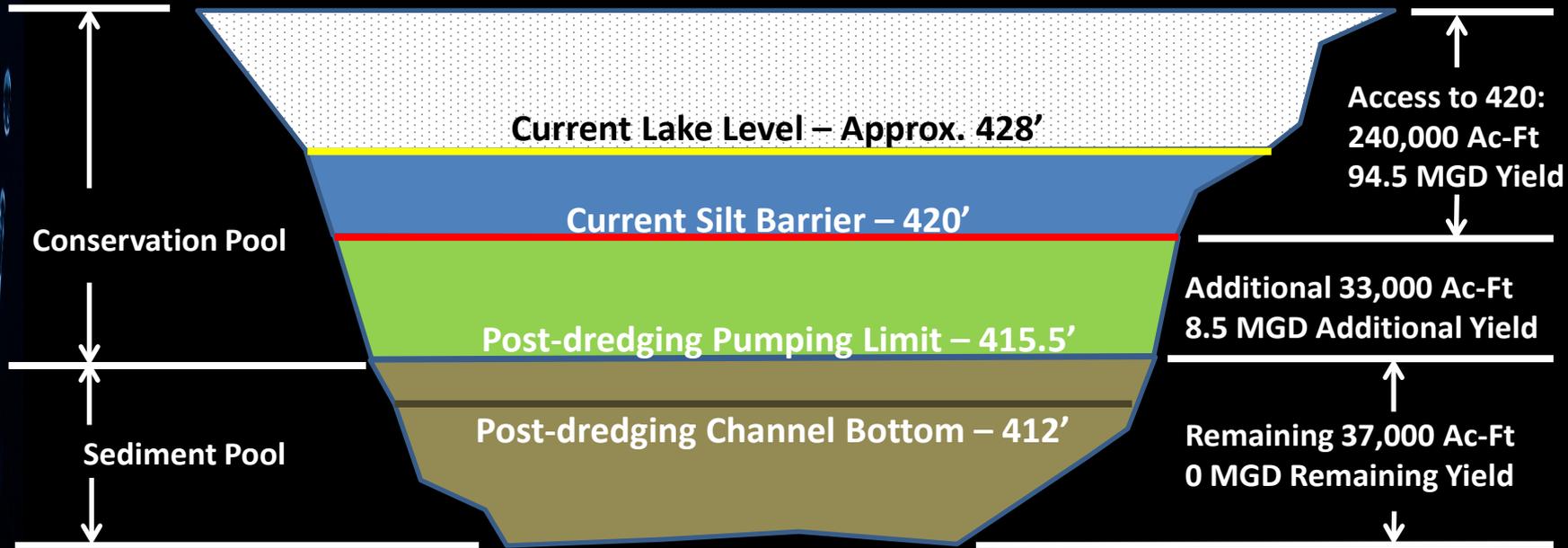


Intake Dredging Projects



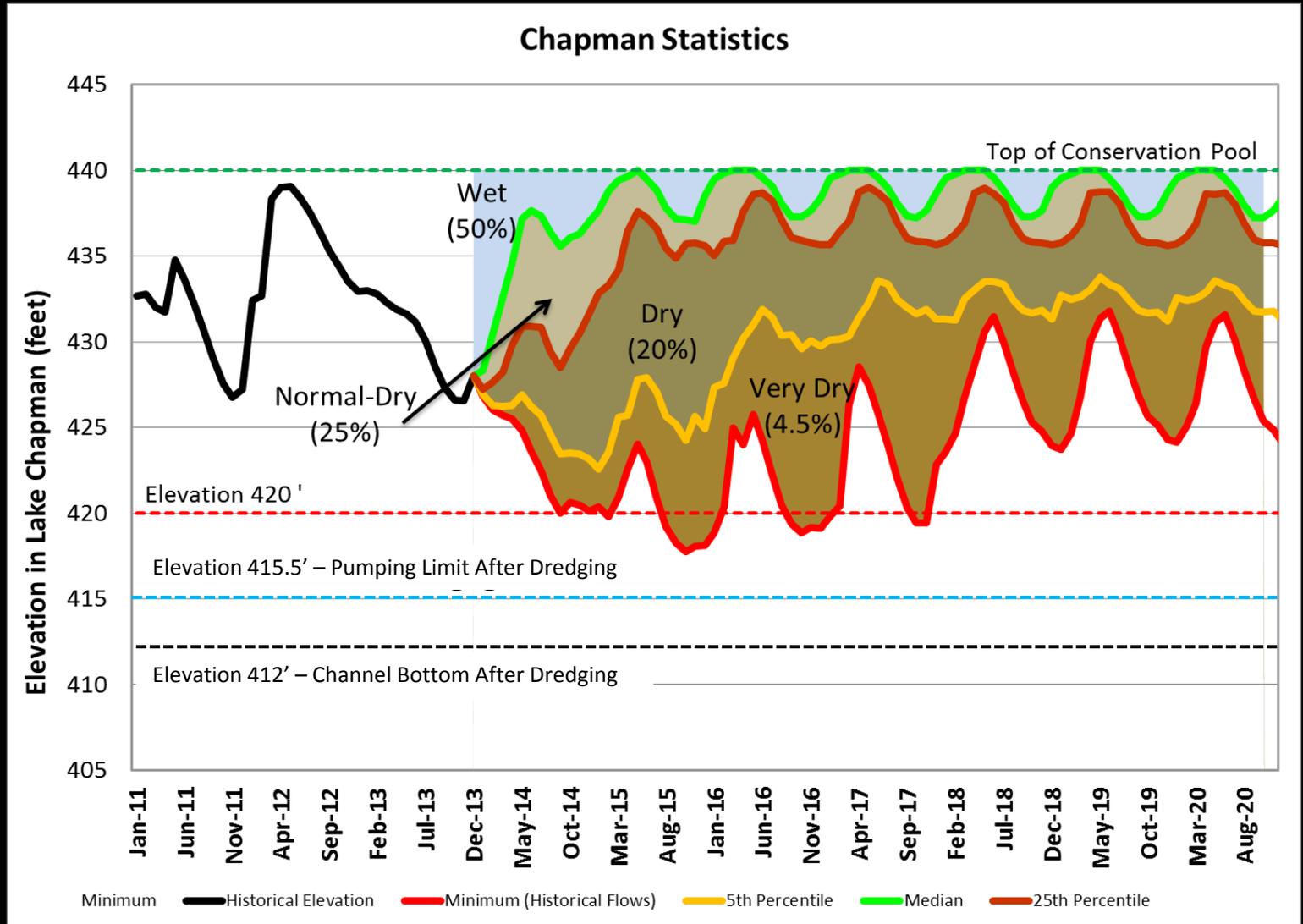


Lake Chapman





Dredging Benefits (Chapman)





Lake Jim Chapman Project Status



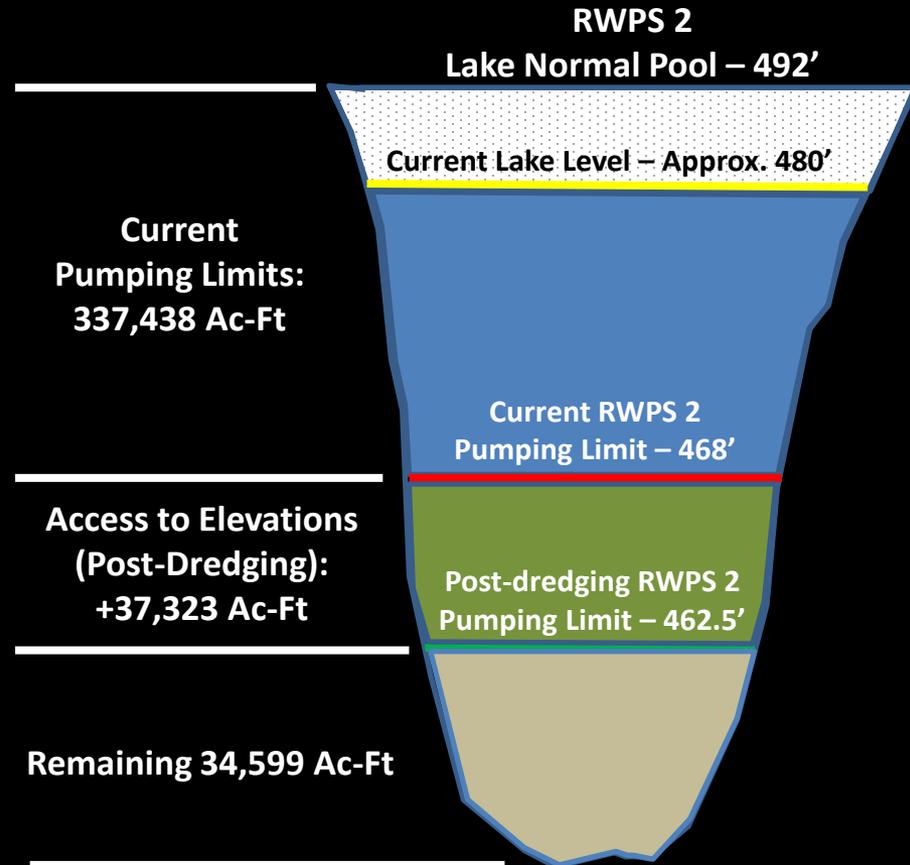
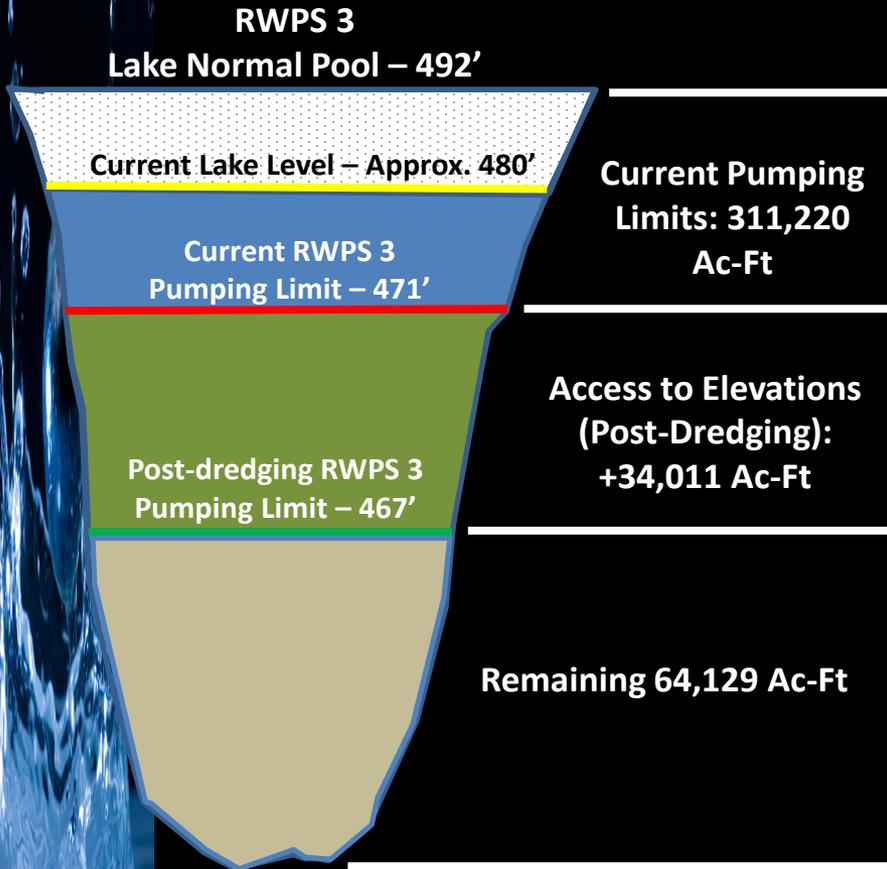
Hydraulic Dredge Cutting Head

- **Schedule:**
 - Contract time bid: 140 days
 - Completion: July 2014
- **Cost:**
 - \$1.8 Million





Lake Lavon

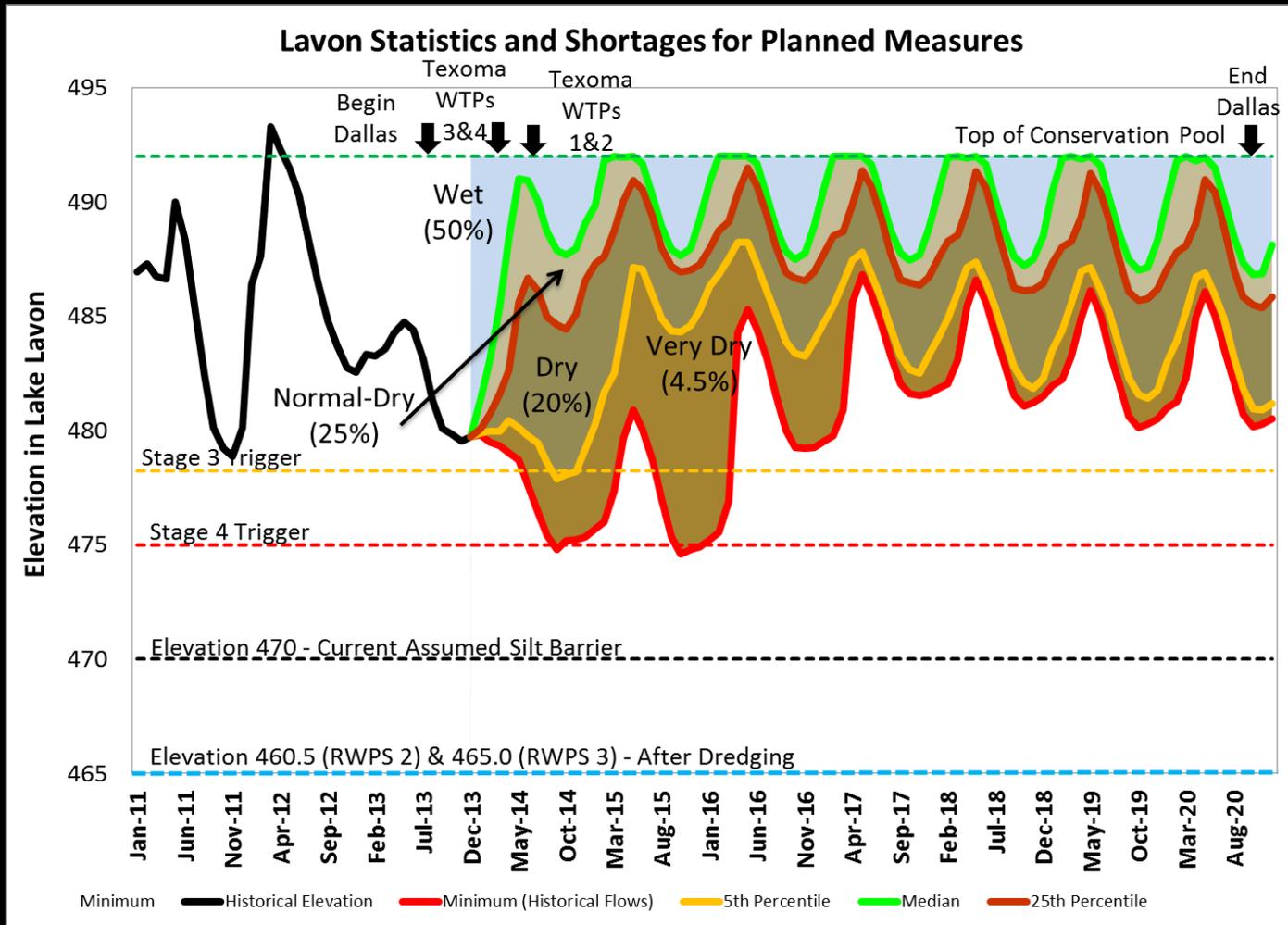


Note: Max. Pumping Elevation Limit is
Approx. 2' Above Channel Bottom





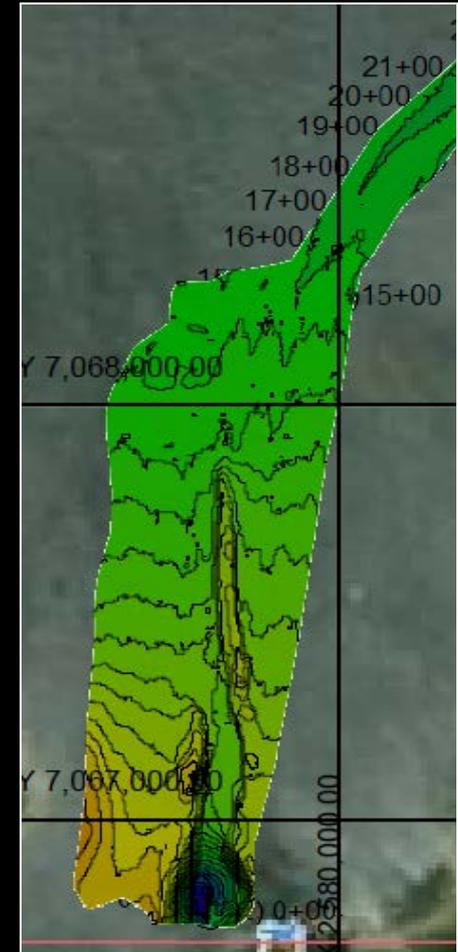
Dredging Benefits (Lavon)





Lake Lavon Project Status

- **Final Engineering Tasks:**
 - Permitting
 - Acquire Disposal Site
 - Construction Documents
 - Bid and Construction Phase
- **Schedule:**
 - Design/Permitting: May 2014
 - Construction: Dec. 2014



RWPS 2 Survey

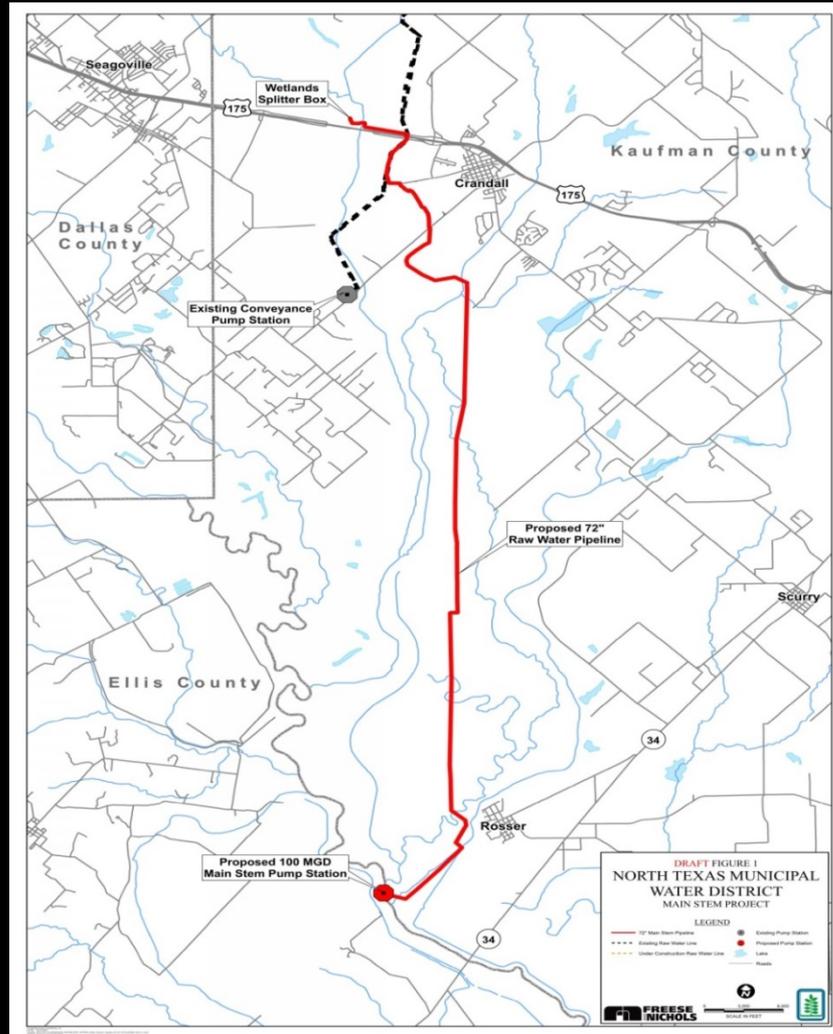


Main Stem Pump Station & Pipeline





Main Stem Pump Station & Pipeline



- New 100 MGD Pump Station on Main Stem Trinity River
- 17 M of 72" Pipeline
- Existing Conveyance Pump Station Expansion
- \$95 million cost
- 2 to 2.5 year schedule





Texoma Desalination WTP

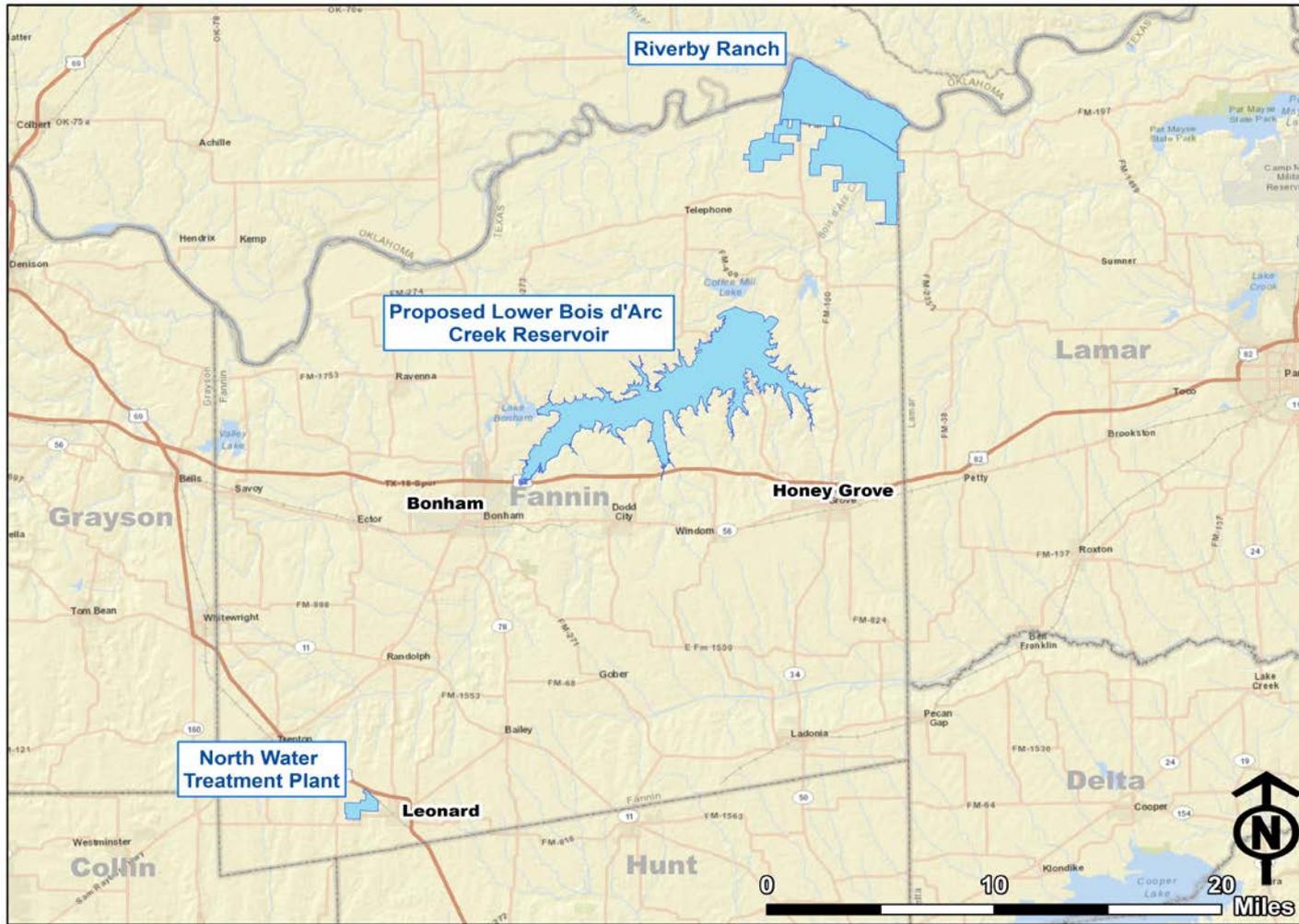


Longer Term Water Supply Projects





Lower Bois d'Arc Creek Reservoir Project





Lower Bois d'Arc Creek Reservoir

Two Major Permits Required

- **CWA Section 404**
– **USACE**
- **Water Rights**
– **TCEQ**





Property Acquisition

- NTMWD Board approved - Nov. 2007
- Reservoir site property needed - 22,590 acres
- Acquisitions to date - 18,560 acres (82%)
- Riverby Ranch mitigation area - 14,959 acres
- North (Leonard) WTP site - 661 acres





Current Cost Estimates*

<u>Project Component</u>	<u>Cost Estimate</u>	<u>Expenditures</u>
Reservoir (Land, Dam, Intake, PS, Conflicts, Permitting, Mitigation)	\$ 413.0 M	\$104.2 M
Terminal Storage	\$30.7 M	\$.2 M
90-Inch Pipeline**	<u>\$ 183.2 M</u>	<u>\$4.4 M</u>
Total	\$626.9 M	\$109.8 M

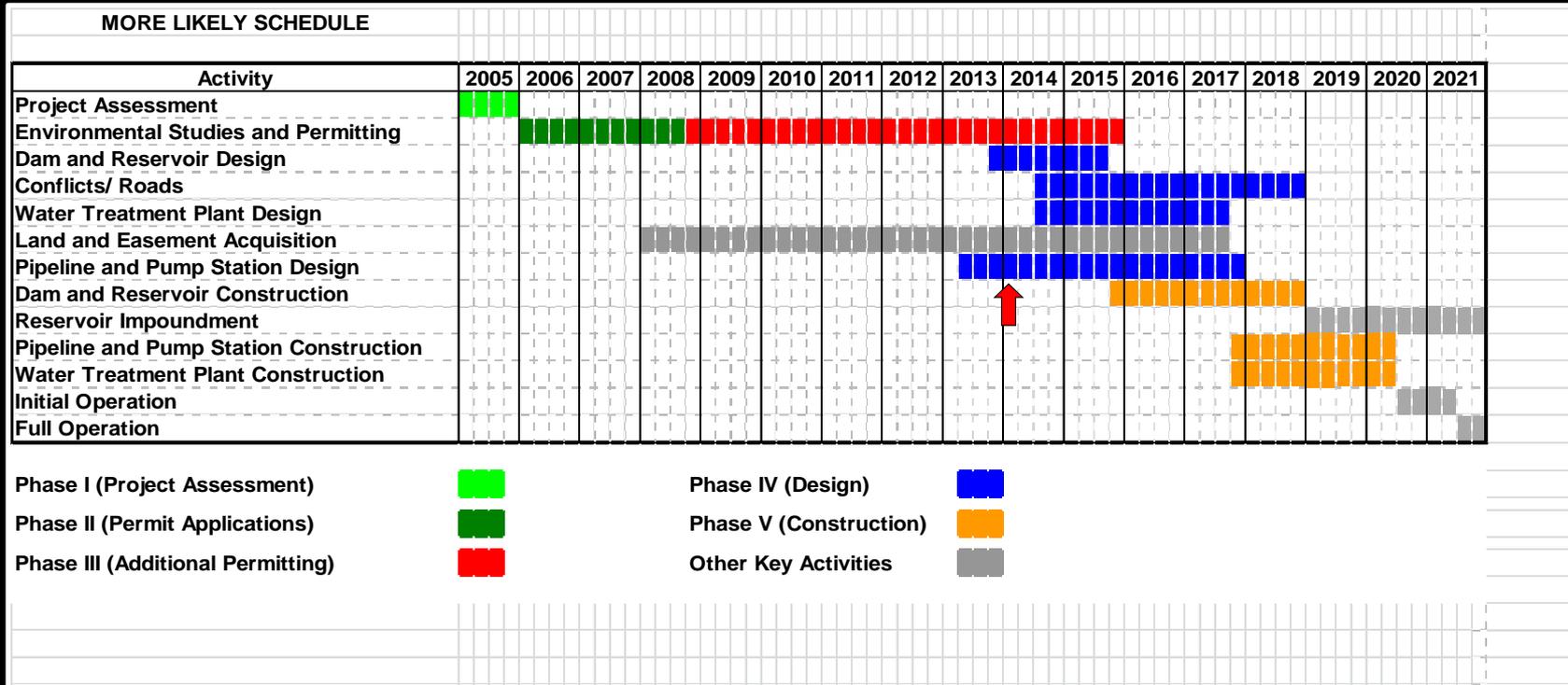
**January 2014 cost estimates*

***Entire cost of Final Pipeline Alignment, Pump Station and Intake and Terminal Storage Location Study included in 90-Inch Pipeline expenditures figure*





Lower Bois d'Arc Creek Reservoir Project Timeline





2012 State Water Plan for NTMWD

Water Management Strategy	Supply (Ac Ft/Yr)	Online (Year)	NTMWD Share of Capital Costs
Lower Bois d'Arc Creek Reservoir	123,000	2020	\$615,498,000
Additional Lake Texoma	113,000	2025	\$152,900,000
Marvin Nichols Reservoir	174,840	2030	\$830,894,000
Toledo Bend Reservoir	200,000	2060	\$1,239,763,000





Ozone Update



Ozone Completion Schedule

– North Ozone Facilities

- WTP IV Contact Basins September 2013
- WTP III Contact Basins February 2014

– South Ozone Facilities

- WTP II - North Contact Basin May 2014
- WTP II - South Contact Basin June 2014
- WTP I Contact Basin June 2014
- **All water is now ozonated**
- **Largest in the world for water treatment!**





**MEMBER CITY
2014
WATER RATE PROJECTIONS**



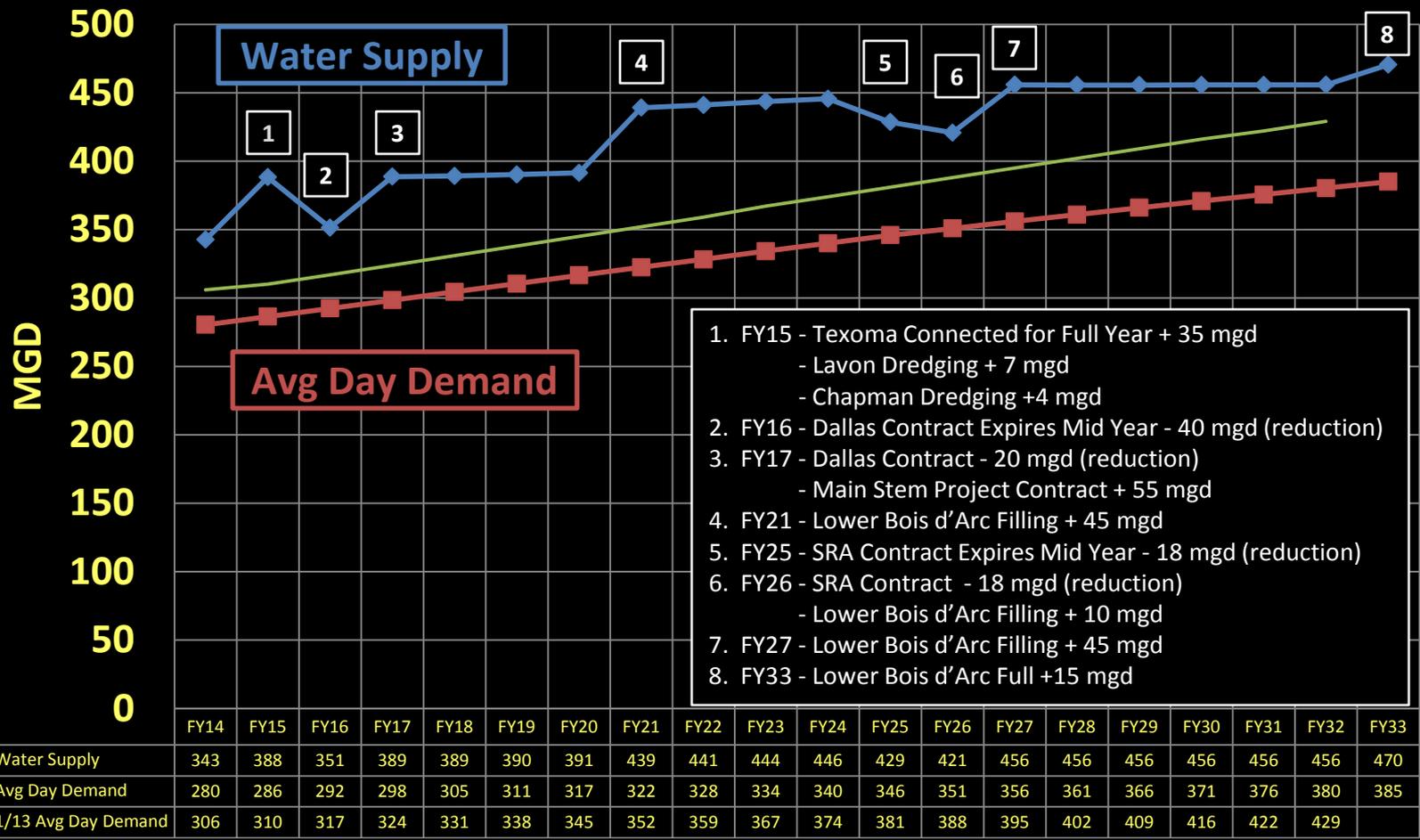


Key Changes from 2013 Projections

- Lower Demands - 9% Reduction
- Capital Program Updates - \$250 M
 - Main Stem Project - \$85 M
 - New Project
 - Additional Clearwells - \$75 M
 - New Project
 - Lower Bois d'Arc Creek Reservoir Project - \$60 M
 - Additional Costs for Reservoir, Pump Station, Raw Water Pipeline, and Relocation Activities
 - 70 MGD North WTP + \$40 M
 - Additional Costs for Excavation, Piping, Electrical, SCADA, Rail Spur, Ozone Facilities

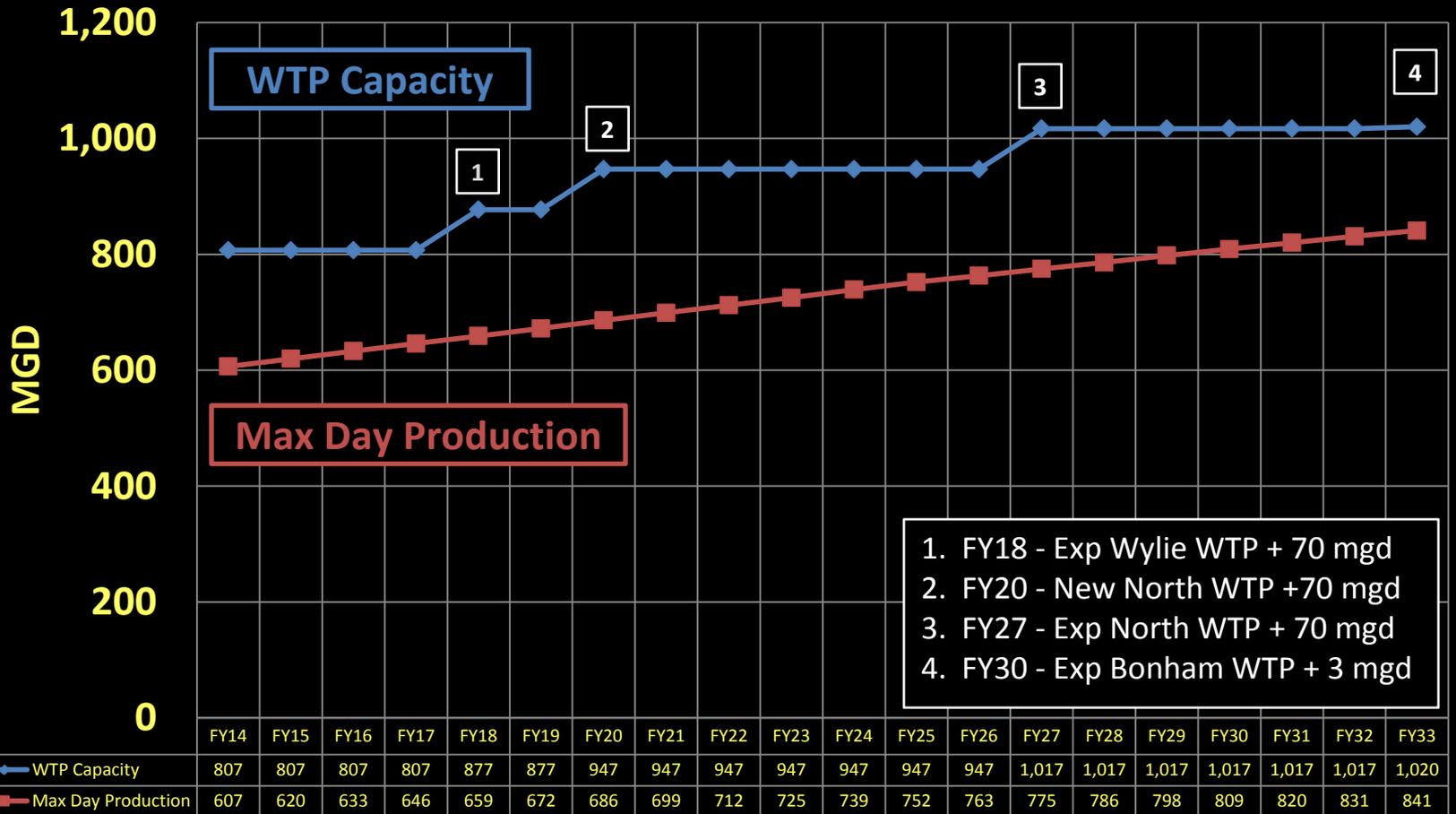


CONNECTED WATER SUPPLY & DEMAND



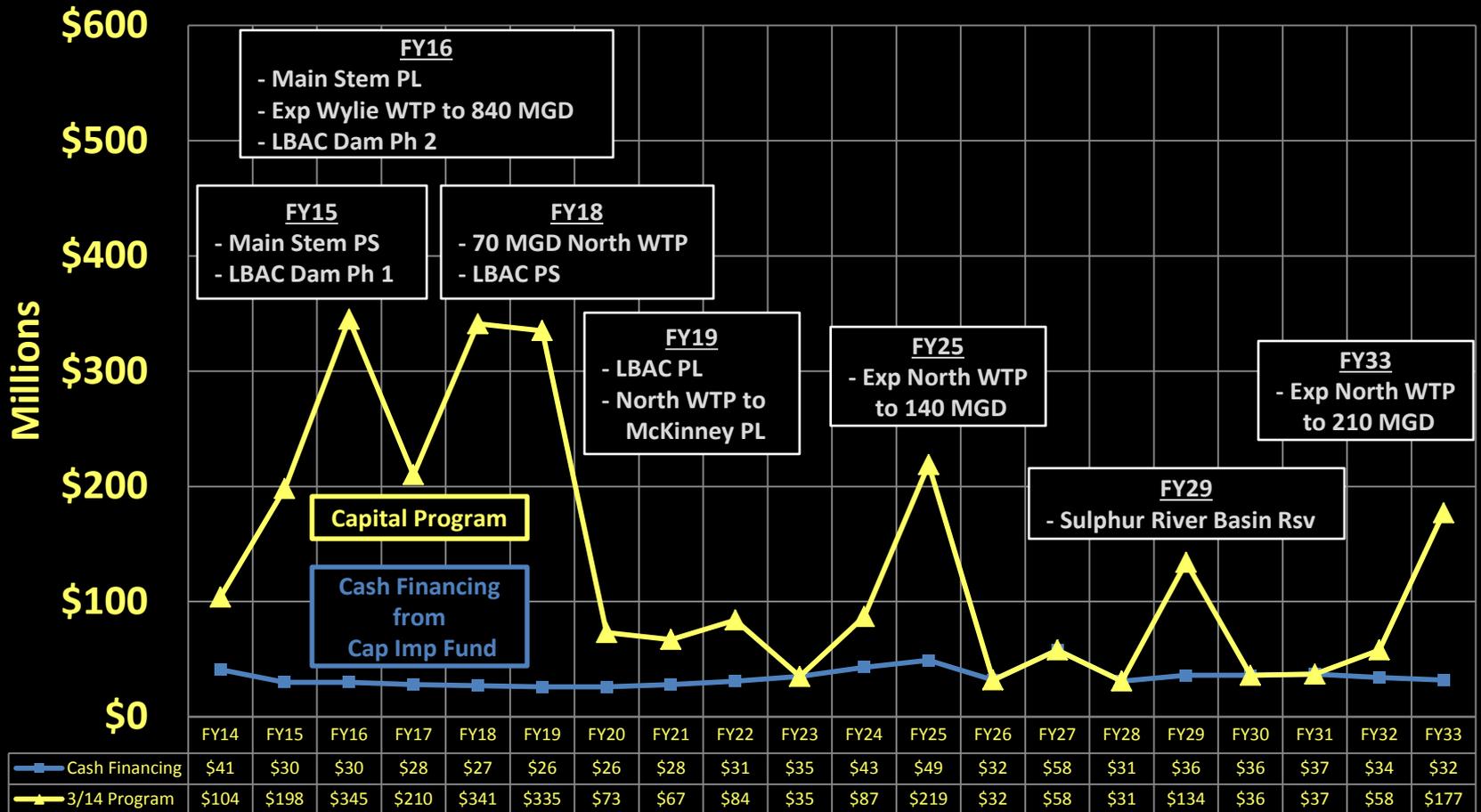


WATER TREATMENT PLANT CAPACITY





CAPITAL PROGRAM



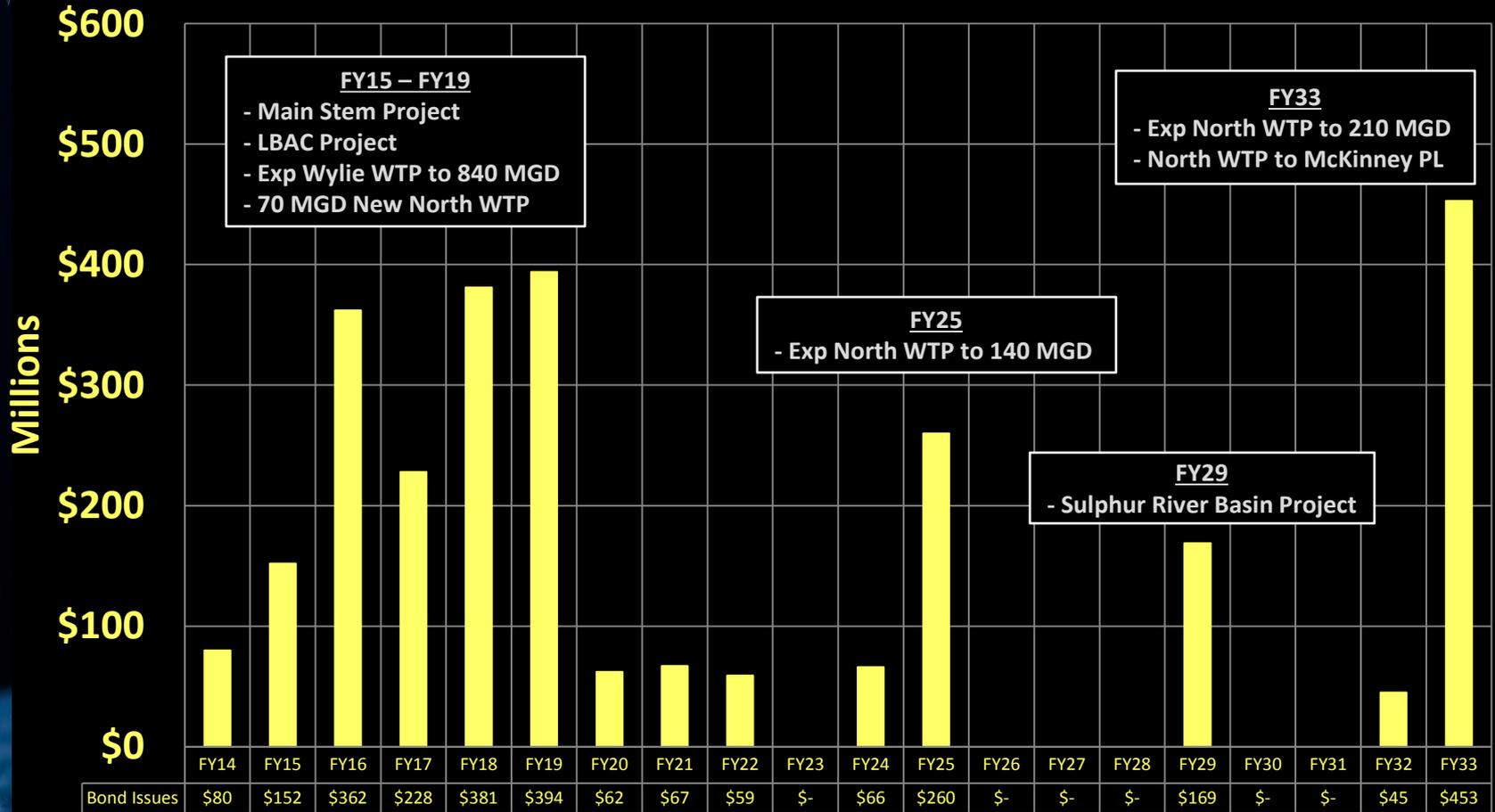
Note: Reflects 2014 Cost.

FY34 Cost is estimated to be \$261M.



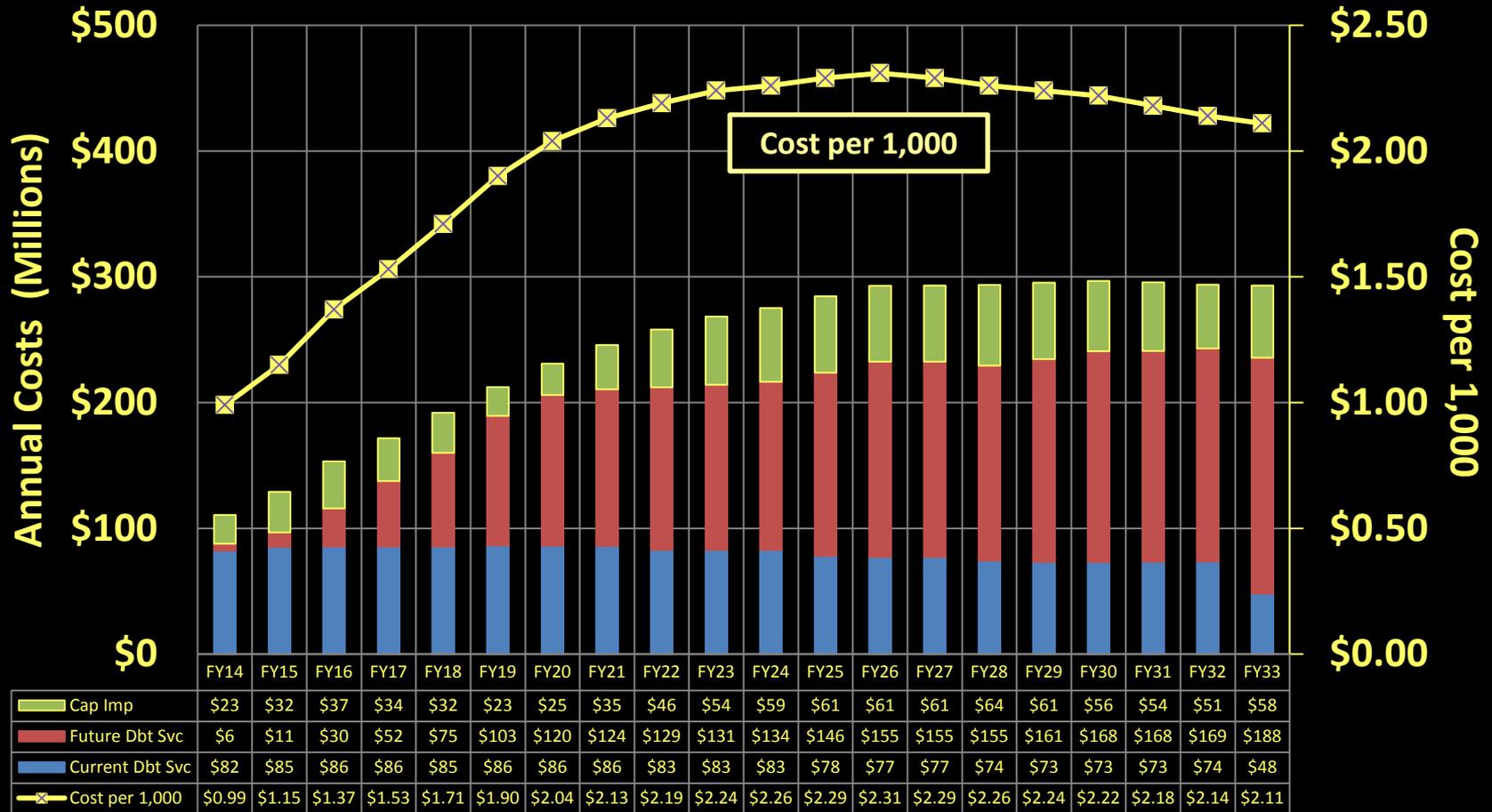


BOND ISSUES



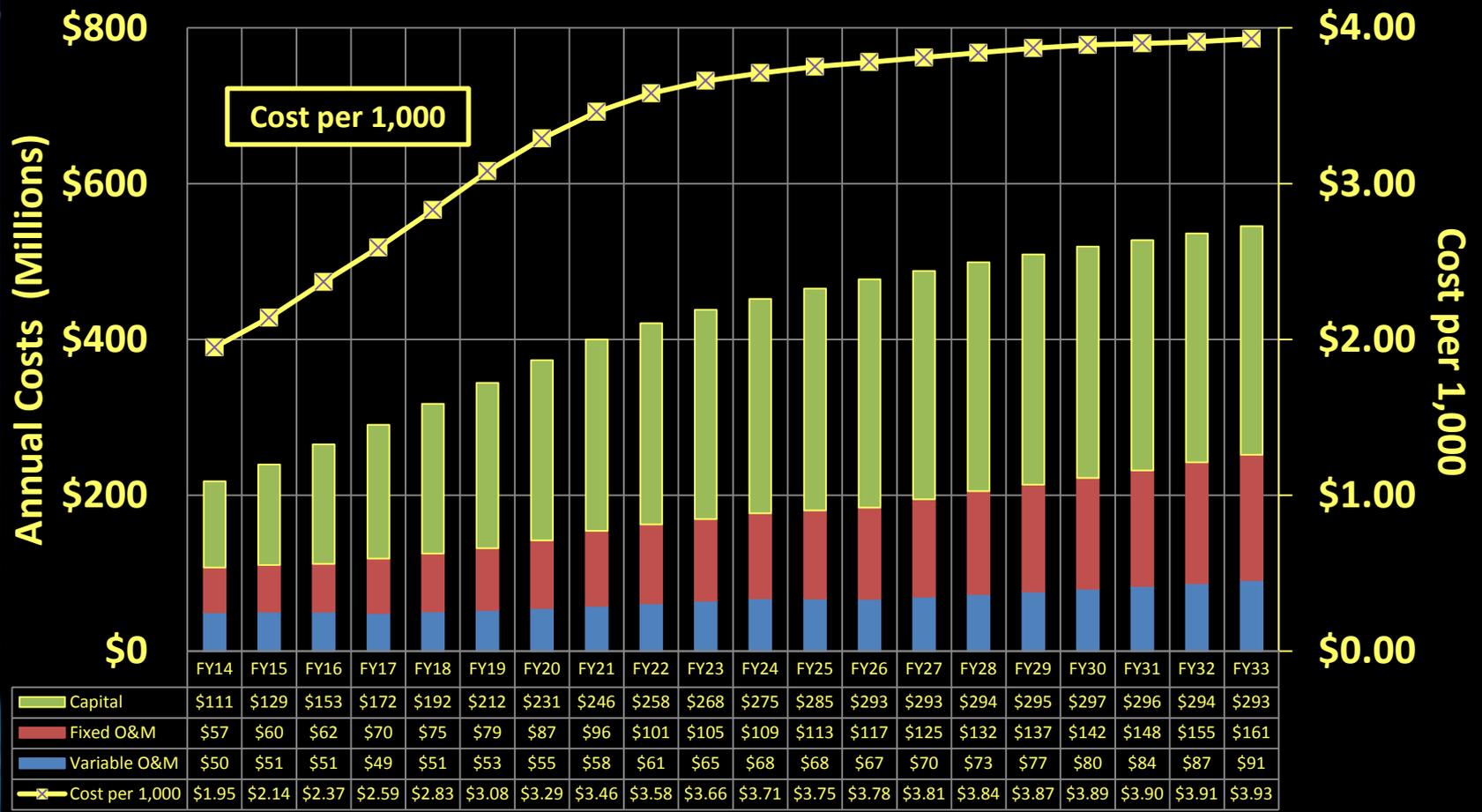
Note: Reflects 3% Annual Escalation to 2014 Capital Costs and Bond Issuance Cost.

CAPITAL COST





TOTAL COSTS



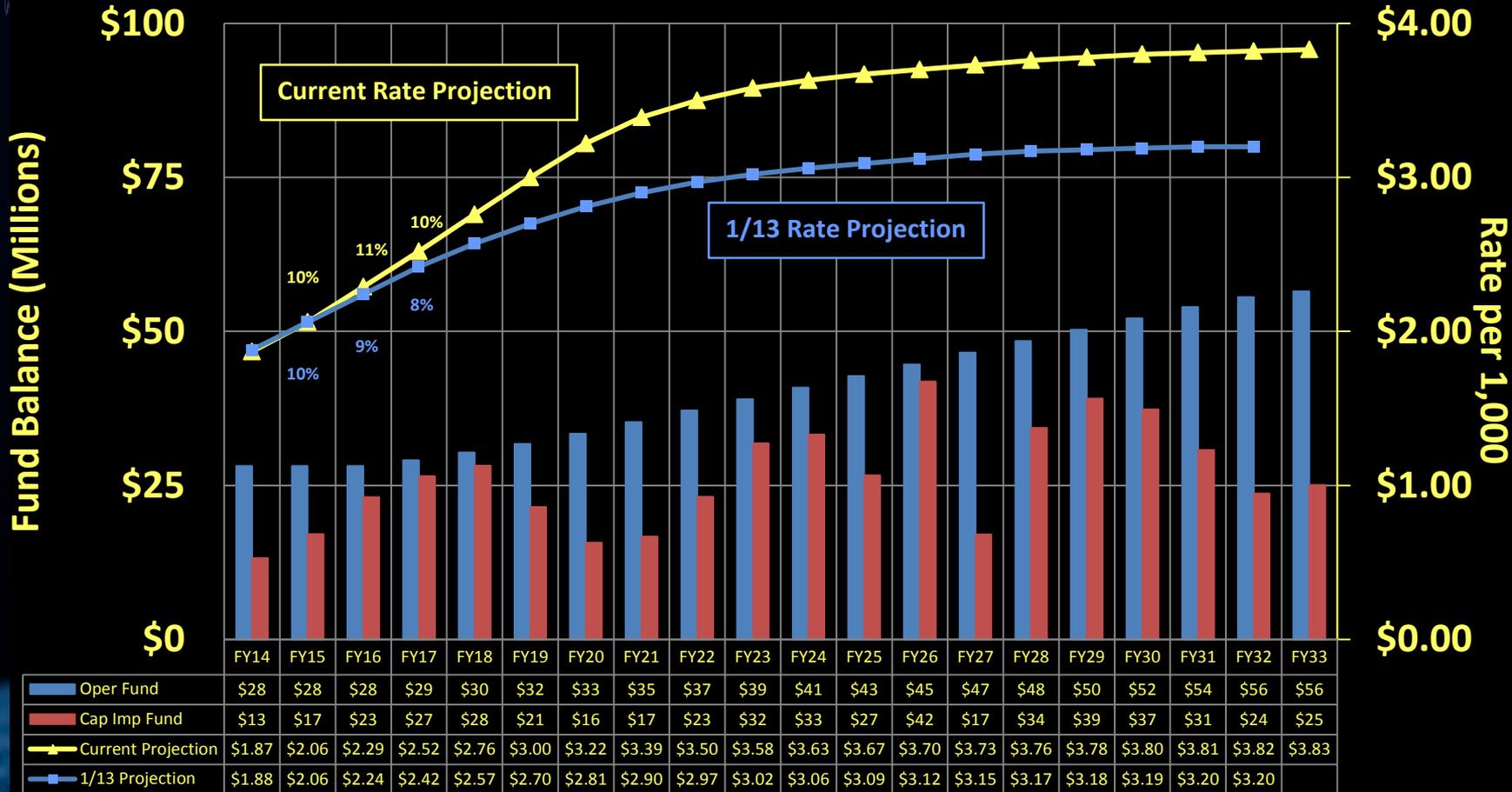
Note: Represents Estimated Total Costs prior to reductions for Interest and Other Income.





FUND BALANCE & MEMBER RATE

Preliminary – Rates are adopted by the Board Annually in September



Questions



RICHARDSON HOSPITAL AUTHORITY DISSOLUTION OVERVIEW

City Council
Work Session

July 21, 2014



RHA BACKGROUND/HISTORY

- The Richardson Hospital Authority (RHA) was created by the City of Richardson in 1958.
 - The purpose of the board was to create a hospital to serve the interest of its residents.
- Spring Valley Hospital was purchased by the RHA in 1966 and the Richardson General Hospital was created.
- In 1977 The Richardson General Hospital moved from W. Spring Valley to Campbell Road and over several decades grew to its current footprint.
- The hospital was affiliated with the Baylor Health System from 1993 to 2003.
- 2003 through 2009 the hospital operated independently as the Richardson Regional Medical Center and created a partnership with UT Southwestern for cancer treatment.

RHA BACKGROUND/HISTORY

- 2004 marked the expansion of the hospital to the Renner Campus with a medical office building and emergency center. The cancer center opened in 2008.
- In 2009 the RHA signed a long-term lease with Methodist Health System creating a mutually beneficial partnership.
- In 2011, the RHA agreed to a purchase of the hospital by Methodist effective in 2013.
- This year (2014) we celebrated the opening of the new 125 bed Methodist Richardson Medical Center.

METHODIST HEALTH SYSTEM PURCHASE PROCESS

- Since late 2013, Methodist Health System and the RHA have been finalizing the purchase of the hospital and assignment of all rights and titles.
- December 2nd all outstanding bonds for the RHA were paid in full and all liens on the property have been released.
- All outstanding RHA liabilities have been addressed:
 - Worker's Compensation
 - Professional Liability
- All RHA bills and anticipated invoices are paid.
- RHA records were transferred to the City of Richardson for ongoing management and retention.
- RHA met on June 30, 2014 and approved the dissolution of the authority.

REQUIRED CITY COUNCIL ACTIONS

- In order for the dissolution to take effect the City Council needs to approve an ordinance ratifying the RHA's June 30th action and dissolving the RHA.
- The ordinance will be placed on the City Council's July 28th meeting for consideration.
- The dissolution will take final effect 31 days after the ordinance is adopted.
- The City offers special thanks to all the members of the RHA (past and present) for their service to the Richardson community playing a critical role in providing critical medical services for our residents.