

San Antonio Water System 2012 Water Management Plan

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Vice President / Water Resources and Conservation

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Rate Advisory Committee



Outline

- Planning Assumptions
- SAWS Current Water Resources
- SAWS Planned Water Resources
- Drought of Record (DOR) Outlook (Near-Term)
- Next Steps

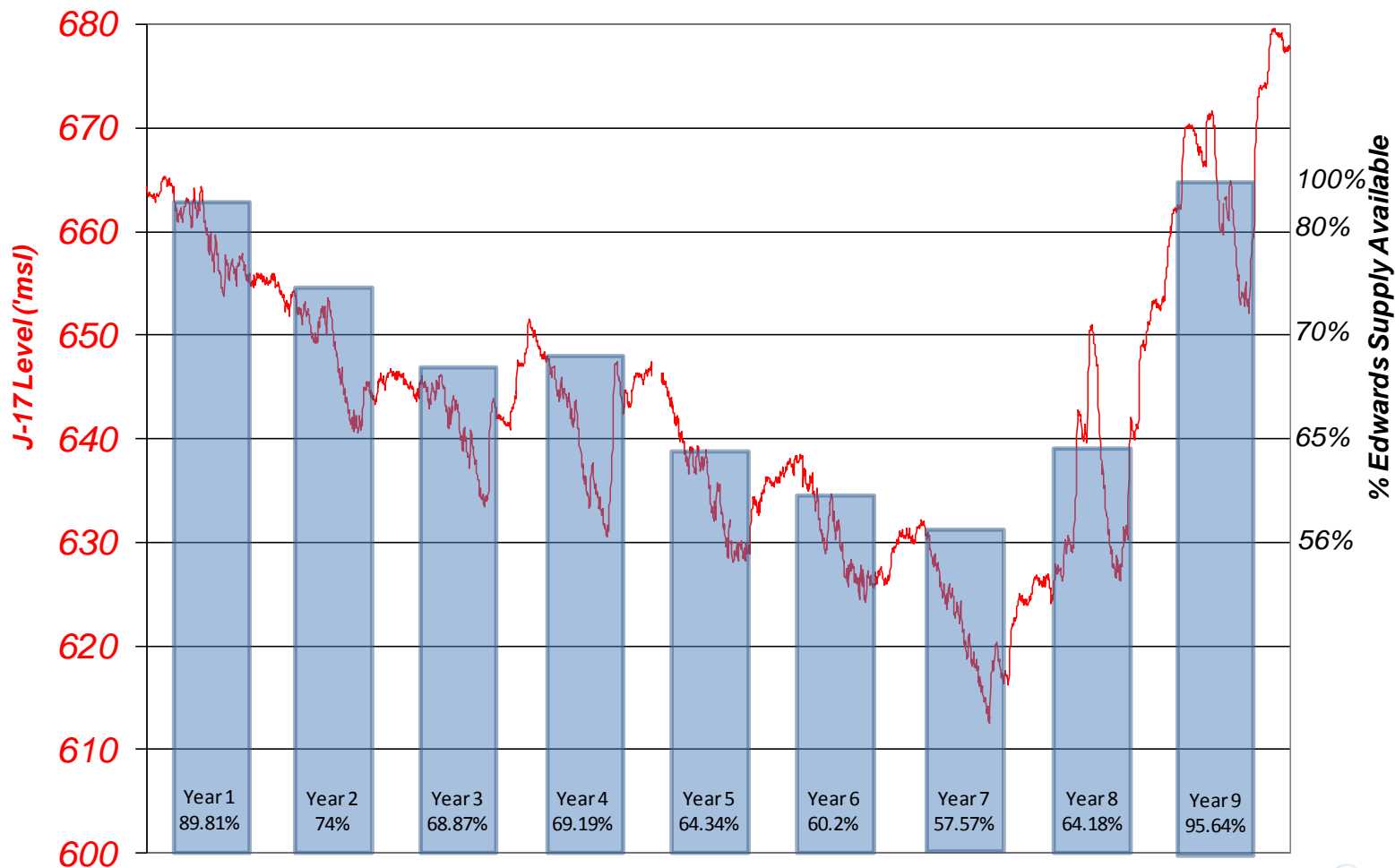
Planning Assumptions

Summary

- Per Capita Water Use
 - 143 GPCD in 2011, the hottest, driest year recorded in Texas, reducing to 135 GPCD
- Population Projection for entire Service Area
 - 1.2% annual growth or ~20,000 people per year
- Water Supplies
 - As impacted by drought and the deepest restrictions
- DOR
 - Replicate the worst case scenario from the 1950s

Planning Assumptions

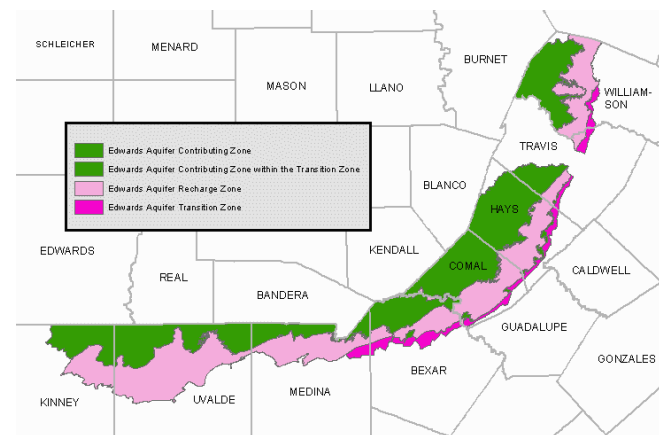
DOR Supply Impacts



SAWS Current Water Resources

Edwards Aquifer

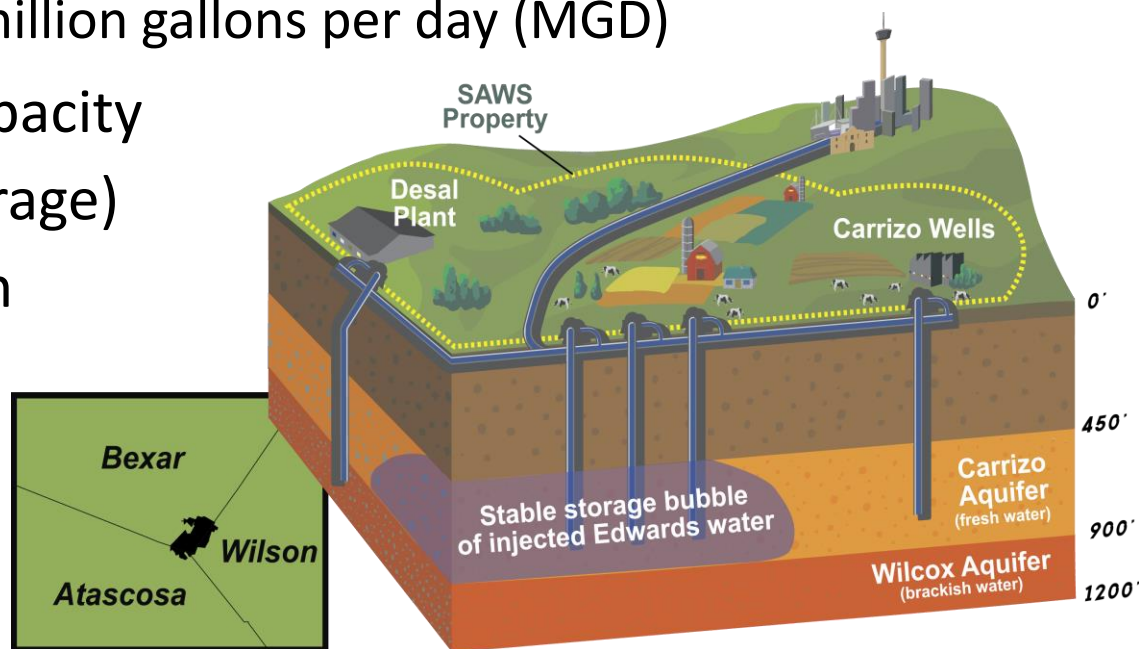
- 288,401 acre-feet/year (AFY) with Habitat Conservation Plan commitment
- Permitted from Edwards Aquifer Authority
- Subject to up to 44% regulatory cutback
- Robust Edwards Aquifer permit market
 - SAWS has a mature purchasing and leasing program
- Edwards Aquifer is SAWS cornerstone supply



SAWS Current Water Resources

Aquifer Storage and Recovery (ASR)

- Third largest in Nation
- Six months of Supply
 - ~88,000 AF in storage at end of year 2013
 - Recovering 30 million gallons per day (MGD)
- 60 MGD recovery capacity
- 35 MGD (annual average) integration limitation
- 30 MGD treatment capacity



SAWS Current Water Resources

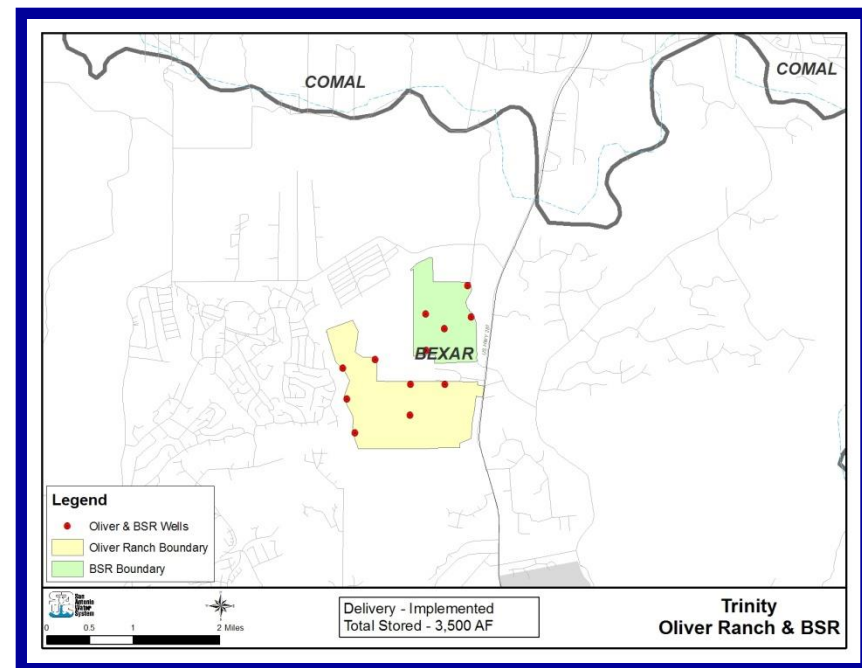
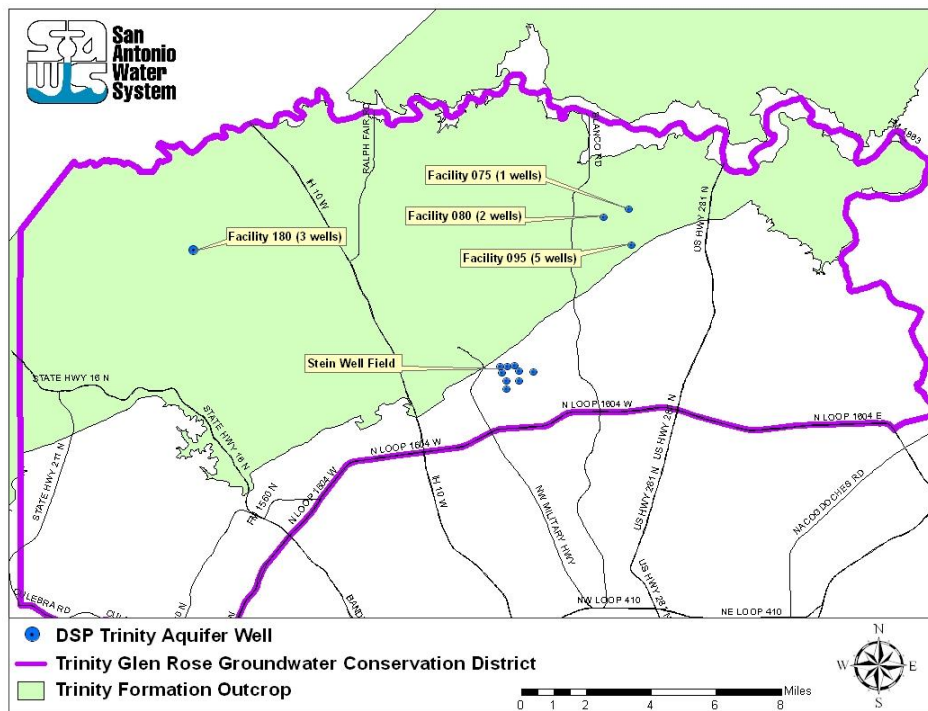
Local Carrizo

- 9,900 AFY
- Produced from wells in southern Bexar County
 - Must be coordinated with ASR
 - Cannot be produced during ASR storage
- First SAWS Water Treatment Plant

SAWS Current Water Resources

Trinity Aquifer

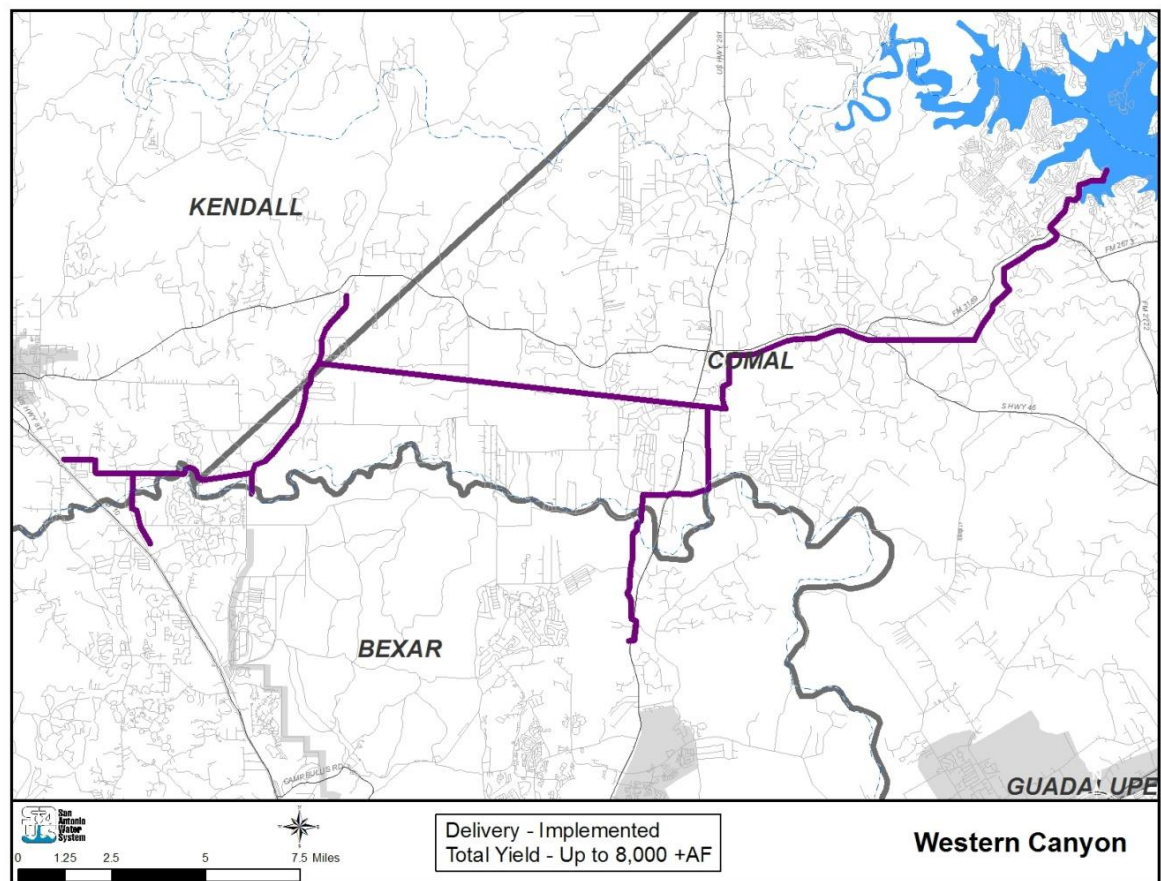
- 8,800 AFY; 2,000 AFY firm
- Serves northern Bexar County
- First Non-Edwards Supply for SAWS



- Oliver Ranch, BSR, WECO, DSP Trinity wells
- Subject to hydrologic cutbacks

SAWS Current Water Resources

Western Canyon (Canyon Lake)

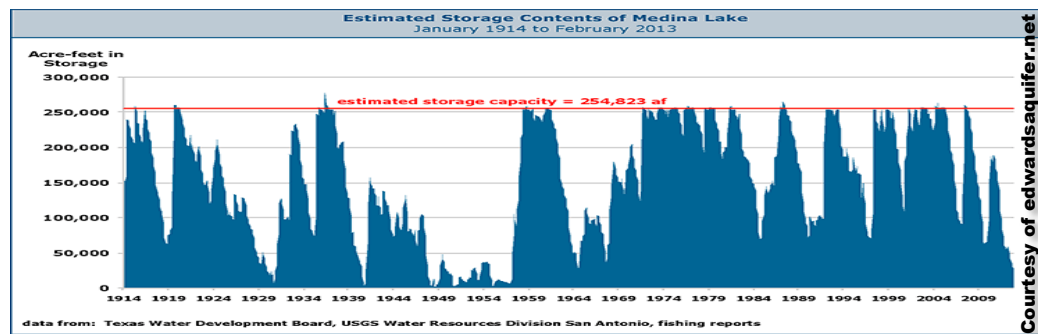


- 8,300 AFY (Variable)
- First surface-water supply for SAWS
- Supplies north-central and northwest San Antonio
- Purchased from Guadalupe-Blanco River Authority (GBRA)

SAWS Current Water Resources

Medina System

- Contract with Bexar-Medina-Atascosa WCID #1
 - 19,974 AFY
- Additional ~9,000 AFY of run-of-river rights
- Treated at SAWS Ultrafiltration Plant
 - 14,500 AFY treatment capacity
- Medina Lake currently less than 4% capacity
- Serves southern service areas
- Zero firm yield



SAWS Current Water Resources

Canyon Regional Water Authority (CRWA)

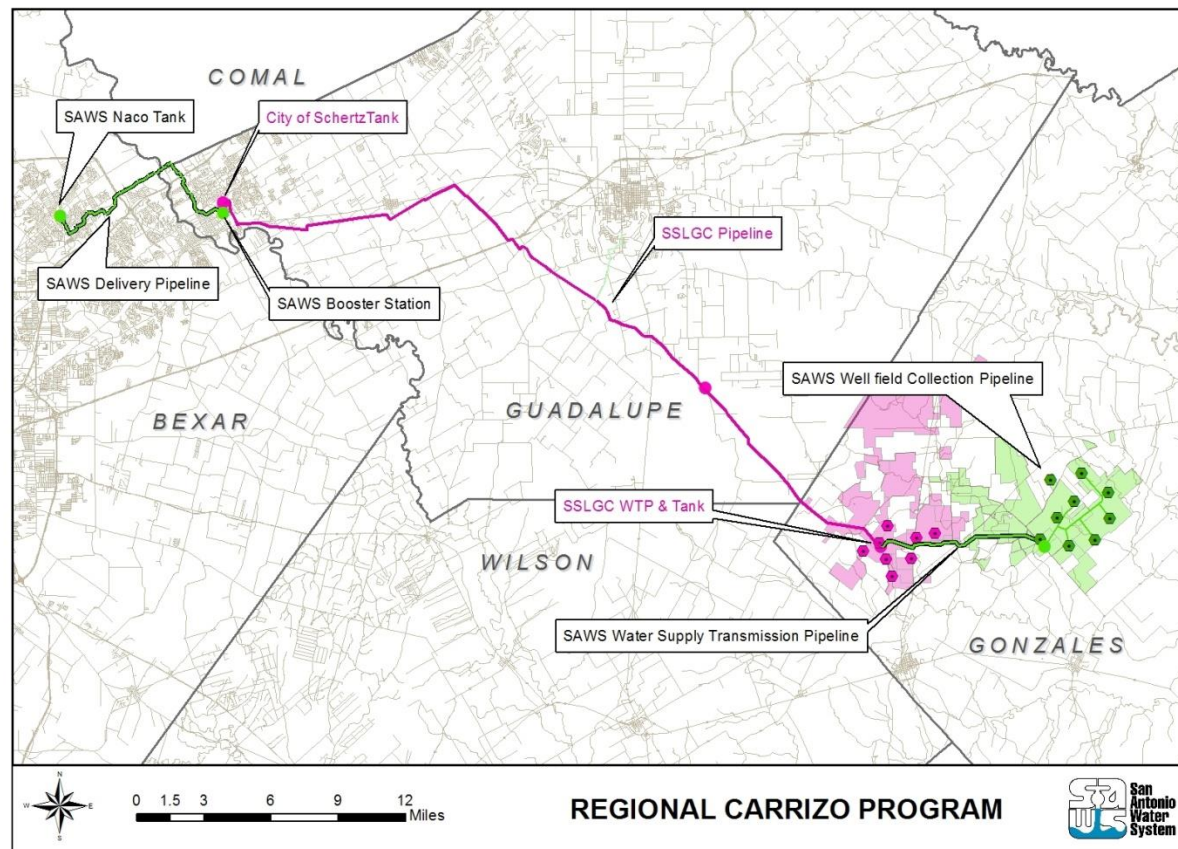
- Lake Dunlap Surface Water
 - 4,000 AFY
 - 500 AF leased to City of Cibolo through December 31, 2018
- Wells Ranch Carrizo Aquifer Groundwater
 - 2,800 AFY (Phase I)
 - SAWS exploring volumes available from Phase II
- Current total available from CRWA: 6,300 AFY
- Due to treatment method, 5,300 AFY of water delivered solely to DSP northeast service area



SAWS Current Water Resources

Regional Carrizo

- Partnership with Schertz-Seguin Local Government Corporation (SSLGC)
- Up to 17,200 AFY
- Online November 2013. Fully online late spring 2014, upon completion of SSLGC Treatment Plant expansion



Planned Supplies

Brackish Groundwater Desalination

- Three-Phase Program
 - Phase 1: 12,210 AFY (2016)
 - Phase 2: 12,210 AFY (2021)
 - Phase 3: 6,105 AFY (2026)
 - Total: 30,525 AFY
- \$296.8 million estimated total cost
 - \$179 million for Phase 1
 - \$45.4 million committed as of Nov 2012



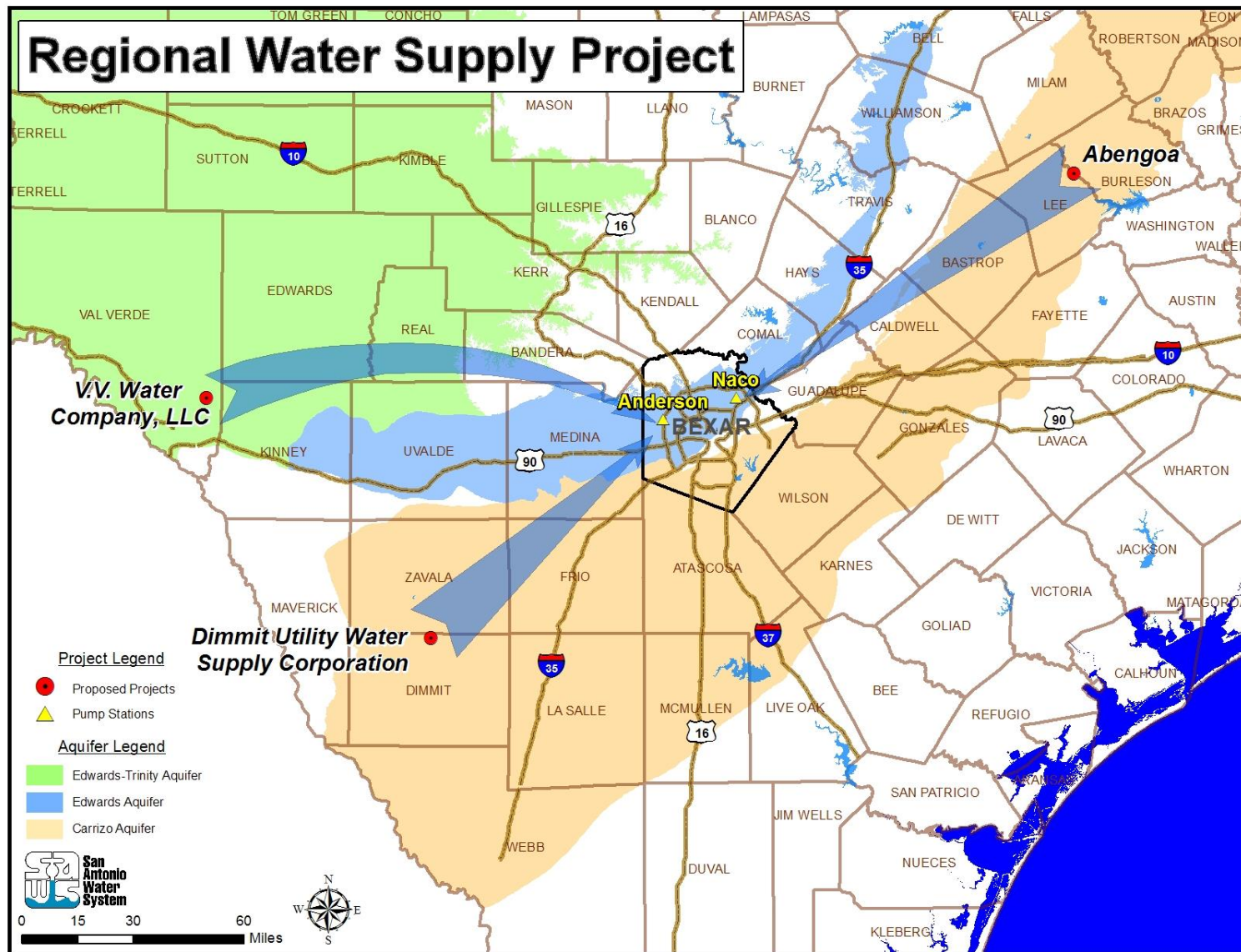
SAWS Planned Water Resources

Expanded Carrizo

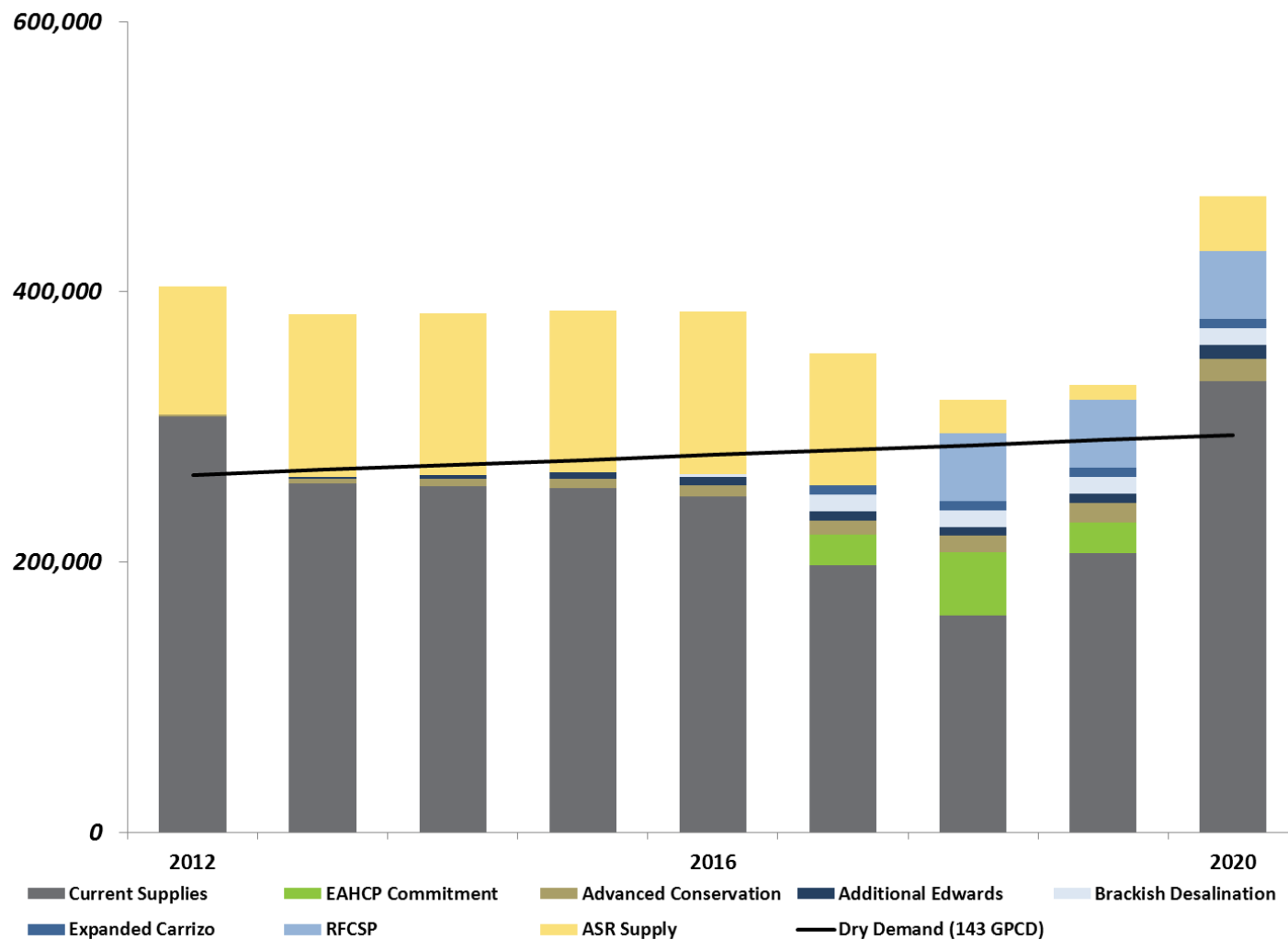
- Works in cooperation with the ASR Local Carrizo off-site wells
 - Located in southern Bexar County
- Geology and preliminary feasibility indicate up to 21,000 AFY of production
 - Groundwater Management Area 13 Desired Future Conditions not exceeded

Regional Water Supply Project

- Request for Competitive Sealed Proposals for 50,000 AFY by 2018
- SAWS currently evaluating three proposals:
 - Abengoa
 - Dimmit Utility Water Supply Corporation
 - V.V. Water Company, L.L.C.

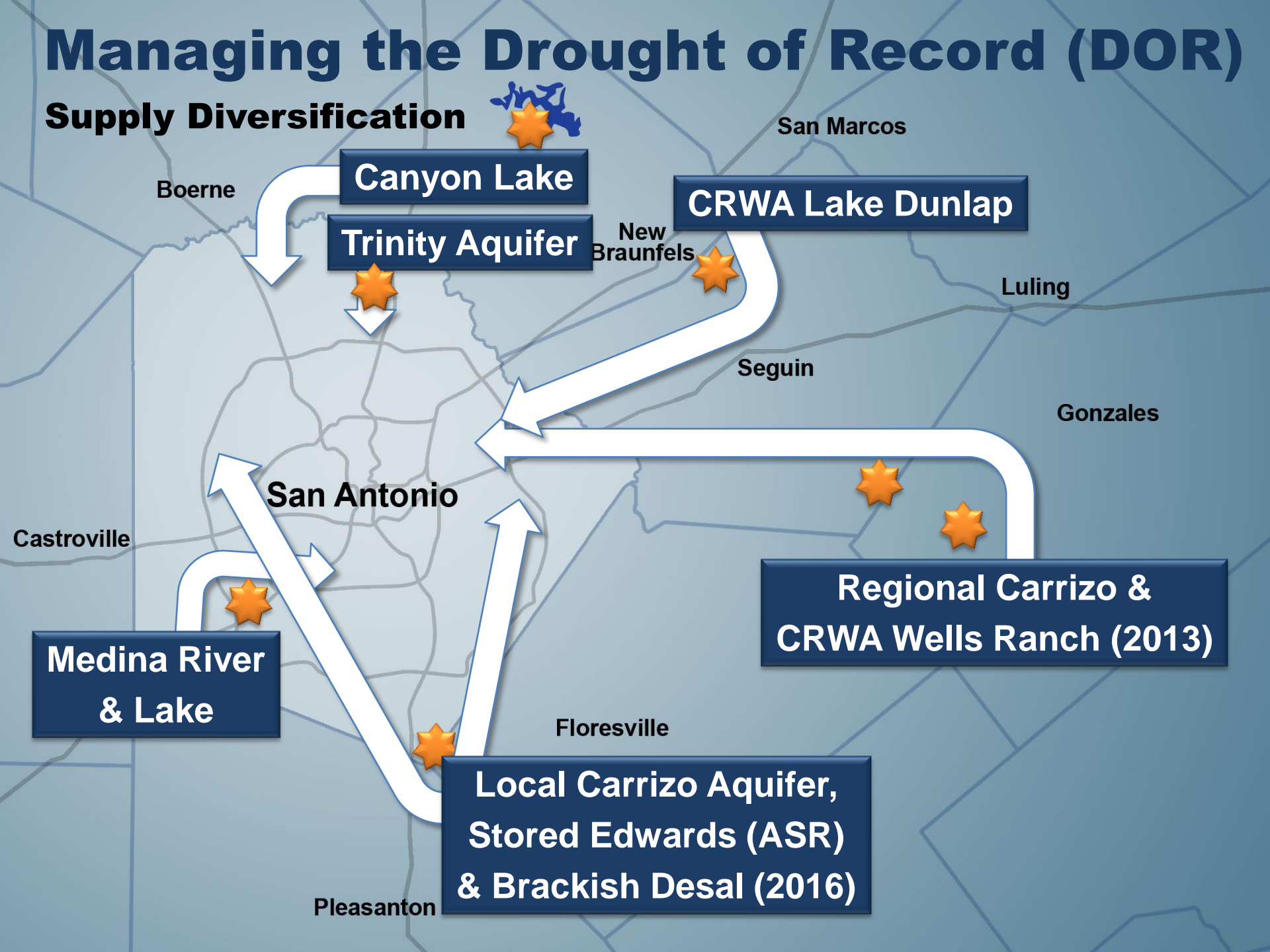


DOR Outlook (Near-Term)



Managing the Drought of Record (DOR)

Supply Diversification



Canyon Lake

Trinity Aquifer

CRWA Lake Dunlap

Medina River & Lake

Regional Carrizo & CRWA Wells Ranch (2013)

Local Carrizo Aquifer, Stored Edwards (ASR) & Brackish Desal (2016)

Next Steps

Implementation

- Regional Carrizo online late 2013
- Brackish Desal design and construction in progress; expected online by 2016
- Expanded Carrizo design and construction in planning stages; expected online by 2017
- RFCSP proposals being evaluated
- 2012 Water Management Plan represents a sustainable, affordable water supply strategy through 2040
- Adaptive management crucial to plan's success

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