

San Antonio Water System's 2012 Water Management Plan

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July 25, 2013

Capital Improvements Advisory Committee



Outline

- Planning Assumptions
- SAWS Current Water Resources
- DOR Outlook (No New Supplies)
- SAWS Planned Water Resources
- DOR Outlook (Near-Term)
- Next Steps

Why a New Plan?

Many Changes Since 2009

- 2010 Census Data
- BexarMet Integration
- Termination of LCRA-SAWS Project
- Changes to Regional Carrizo and Brackish Desalination Projects
- Increased Aquifer Storage & Recovery (ASR) Storage
- Edwards Aquifer Recovery Implementation Program (EARIP)
- Water Supply Proposals (RFCSP)



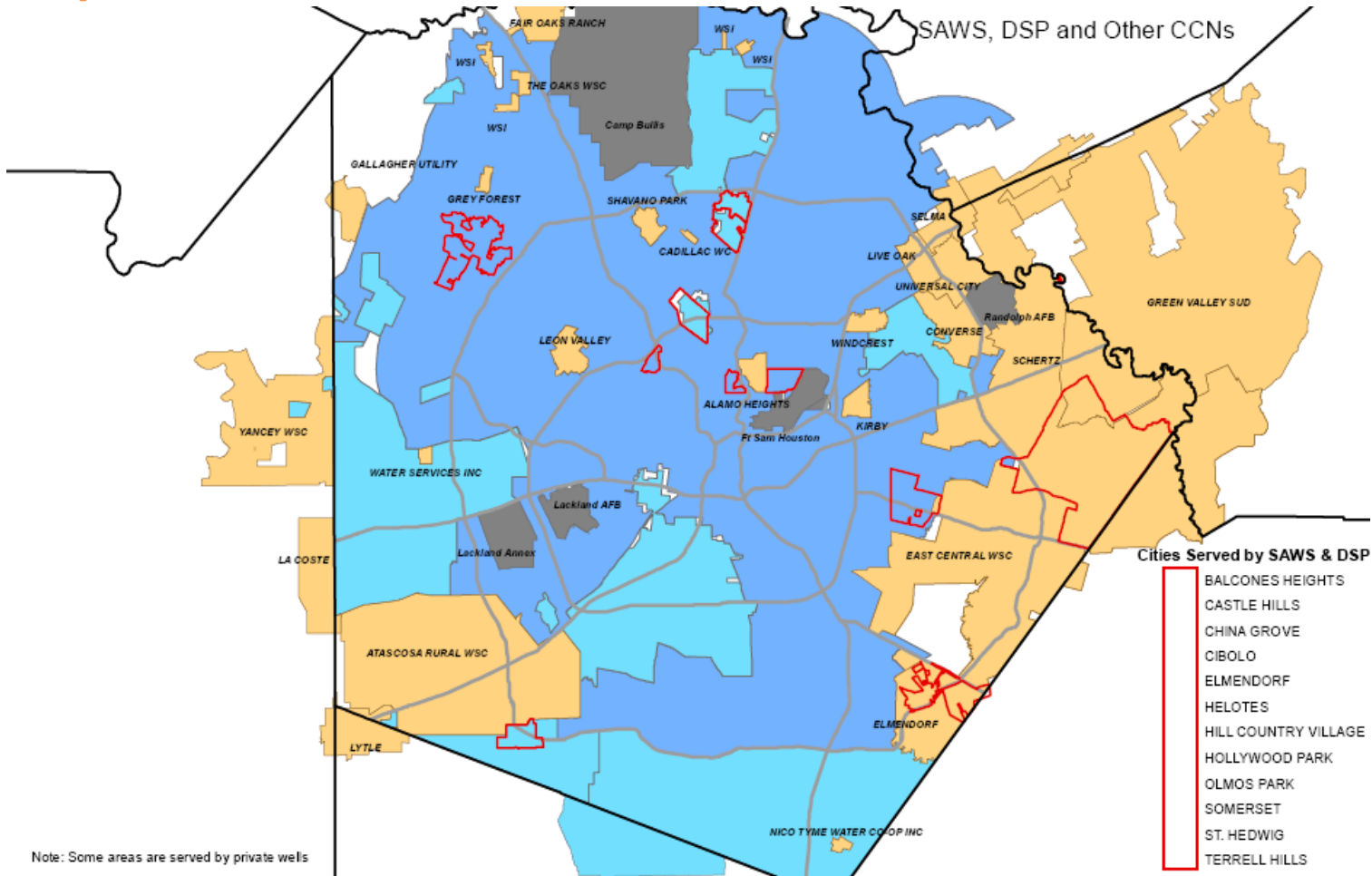
2012 Water Management Plan

Task Force Members

- Robert R. Puente, President/CEO
- Kelley Neumann, P.E., Senior Vice President, Strategic Resources
- Doug Evanson, Senior Vice President/Chief Financial Officer
- Charles Ahrens, Vice President, Water Resources and Conservation
- Greg Flores, Vice President, Public Affairs
- Steve Kosub, Senior Water Resources Counsel
- Hope Wells, Corporate Counsel

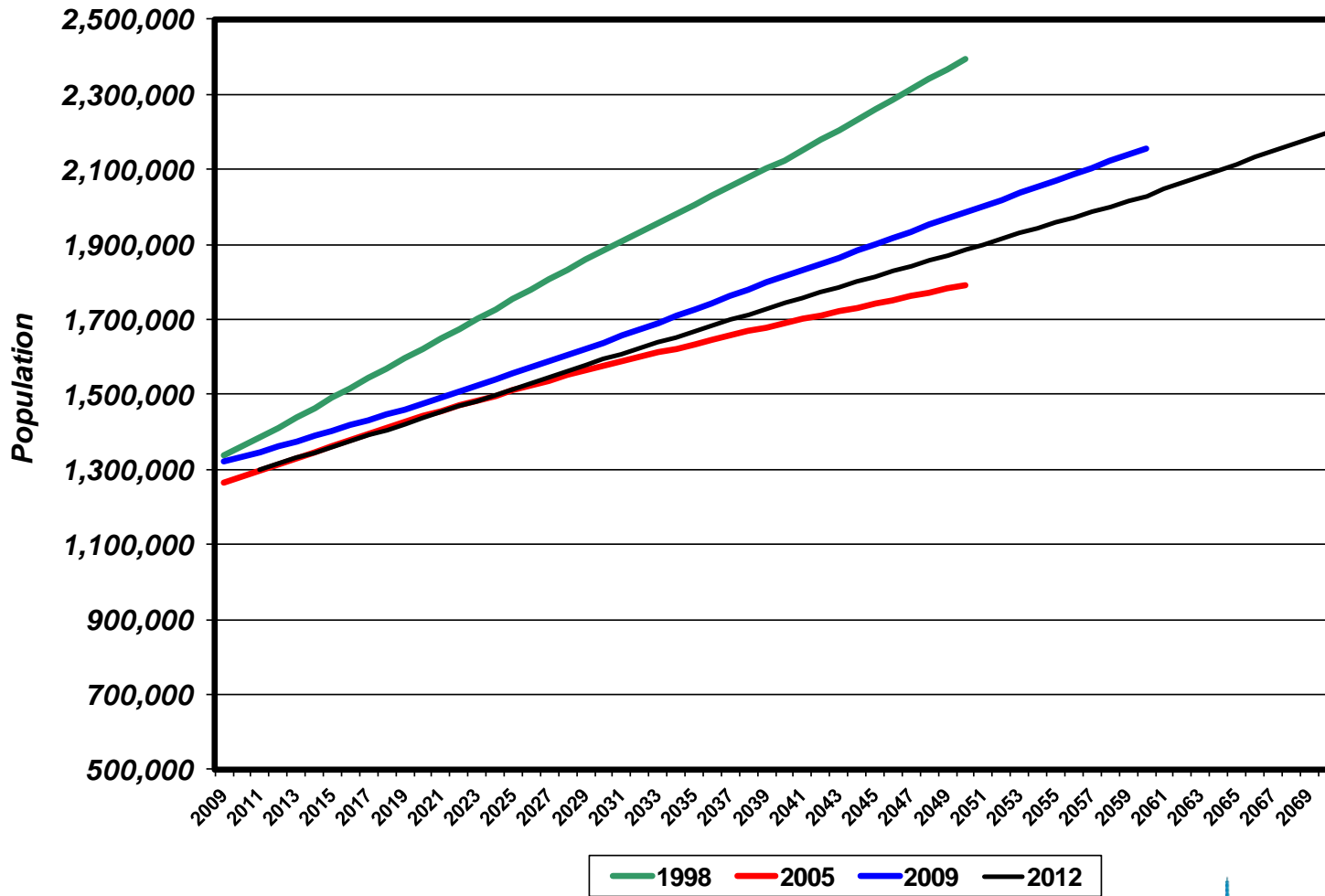
Planning Assumptions

Population



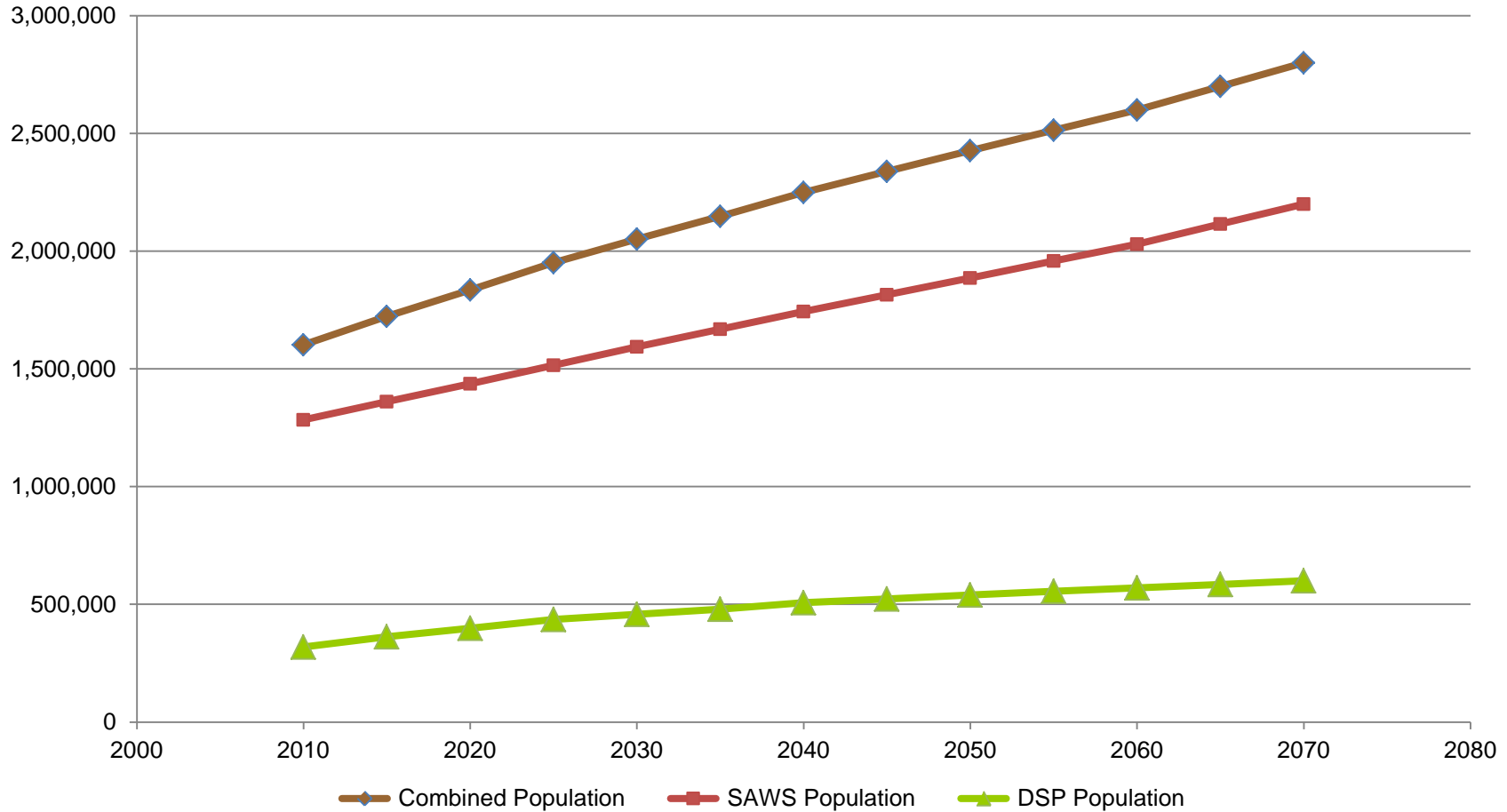
Planning Assumptions

Population (SAWS Only)



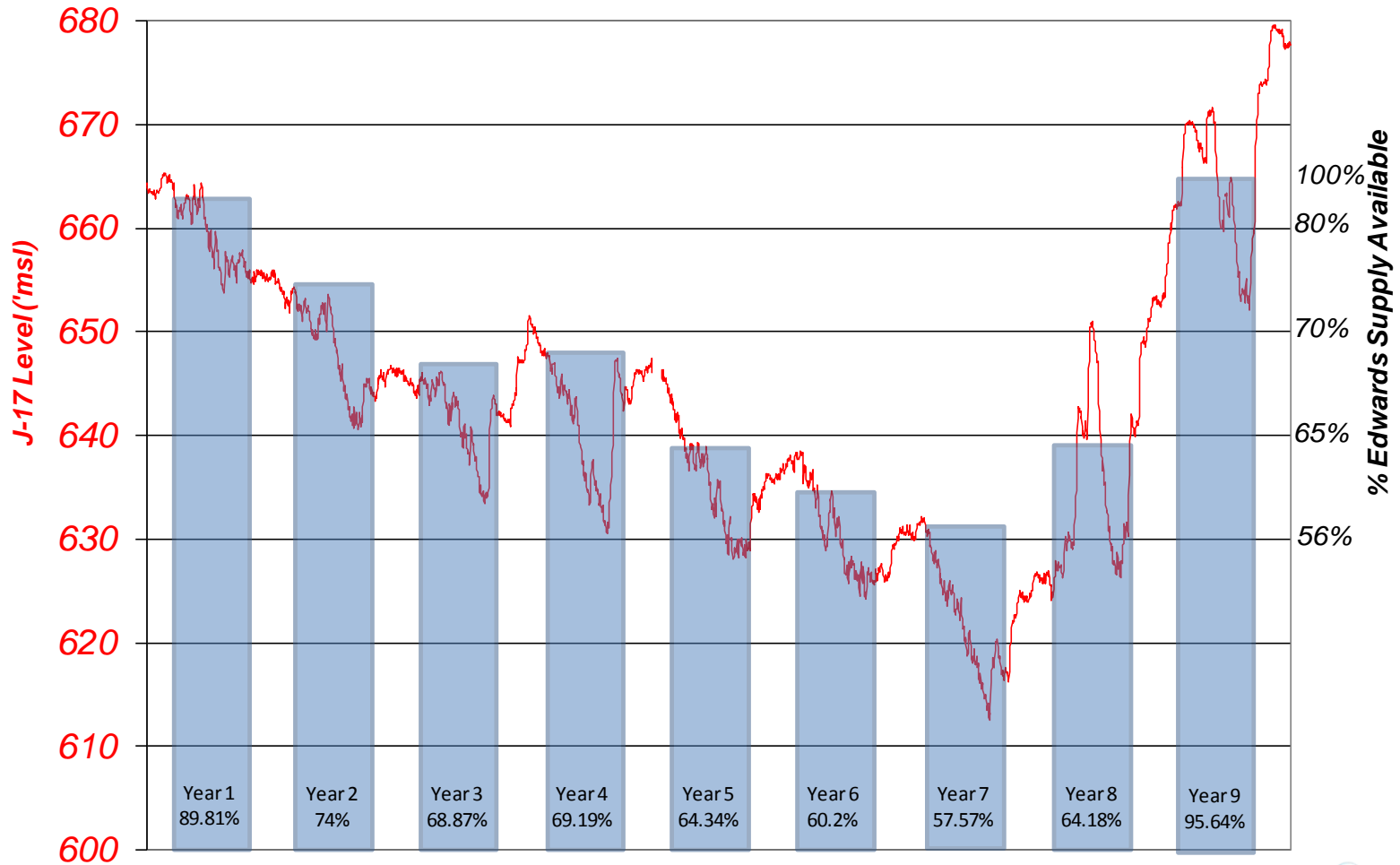
Planning Assumptions

Population (SAWS + DSP)



Planning Assumptions

Drought of Record Supply Impacts



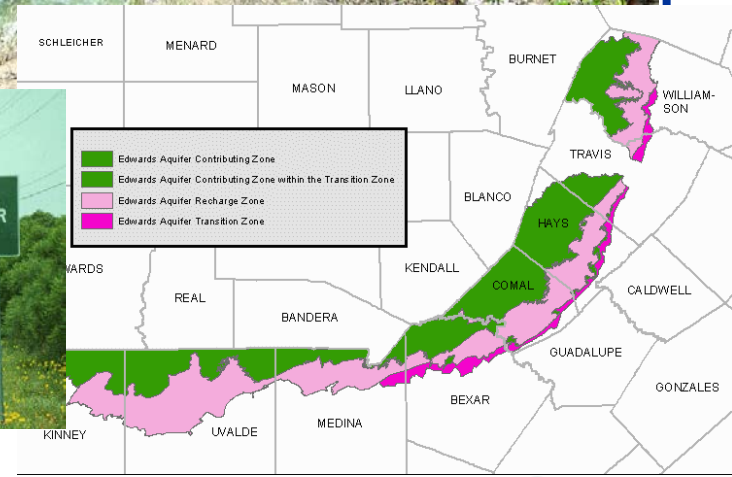
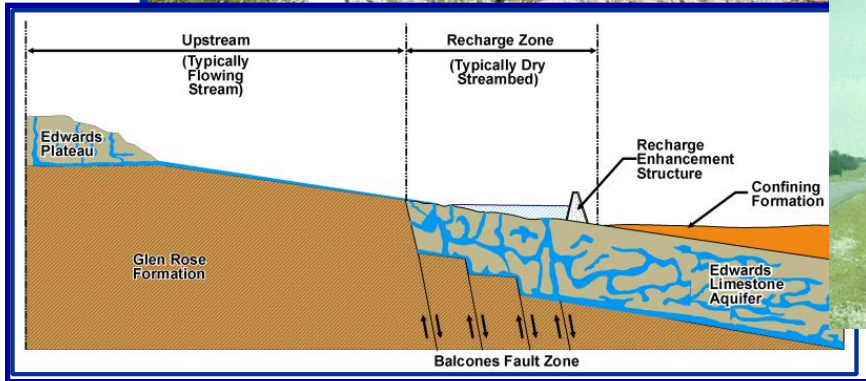
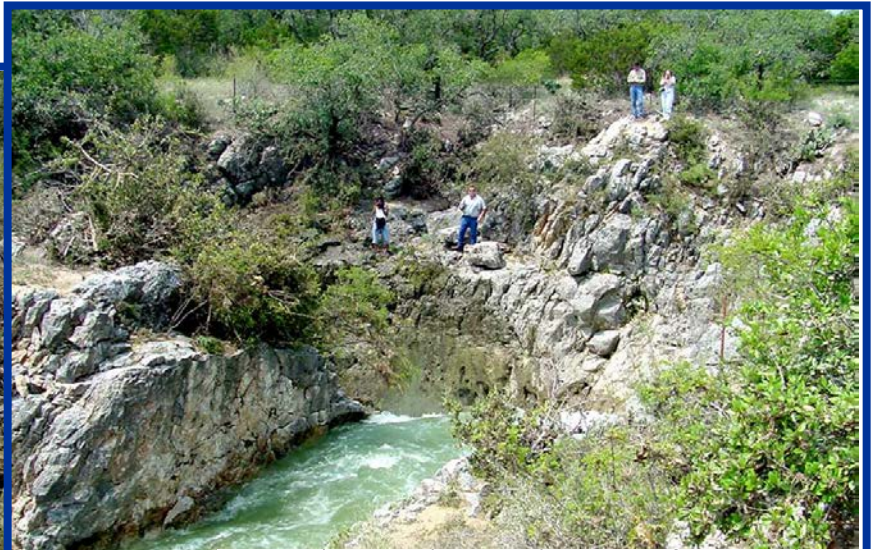
Planning Assumptions

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
- Drought of Record
 - Replicate the worst case scenario from the 1950s

SAWS Current Water Resources

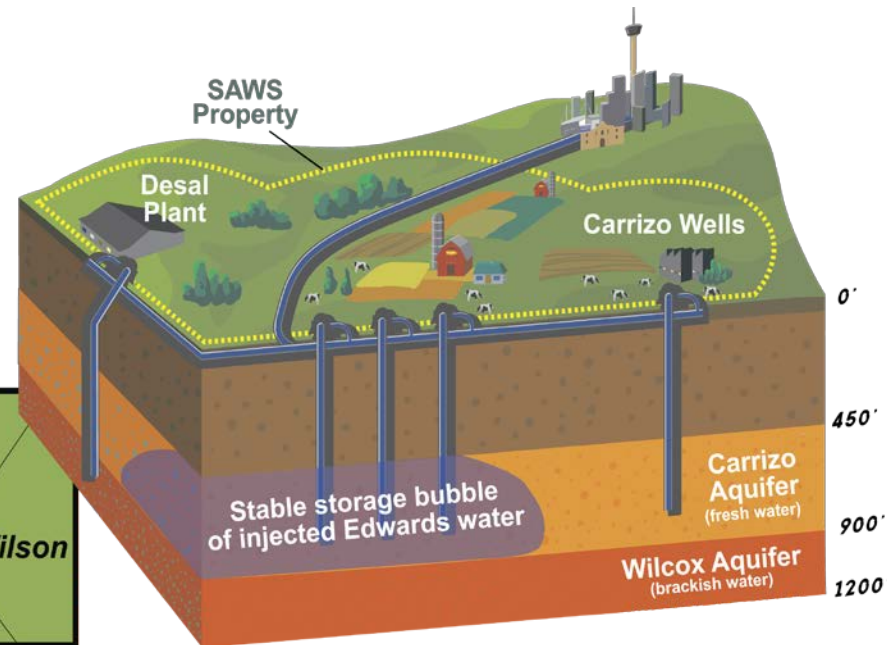
Edwards Aquifer



SAWS Current Water Resources

Twin Oaks Facility

- ASR
 - 3rd-Largest in Nation
 - “Savings account for a sunny day”
 - Currently ~80,000 acre-feet (AF) in storage, or six months of supply



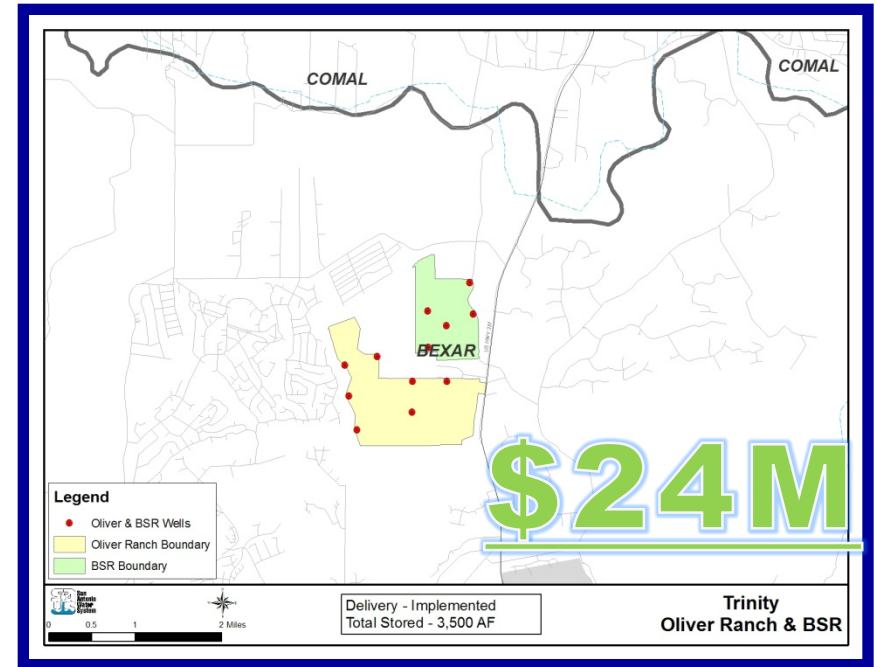
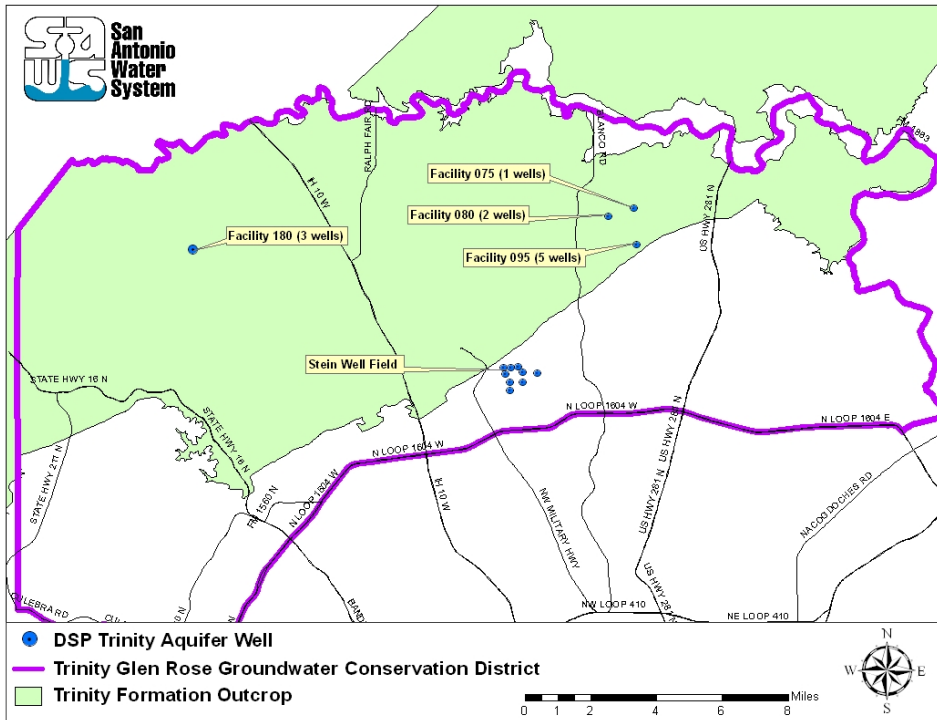
\$253M

- Local Carrizo
 - Additional 9,000 acre-feet per year (AFY)

SAWS Current Water Resources

Trinity Aquifer

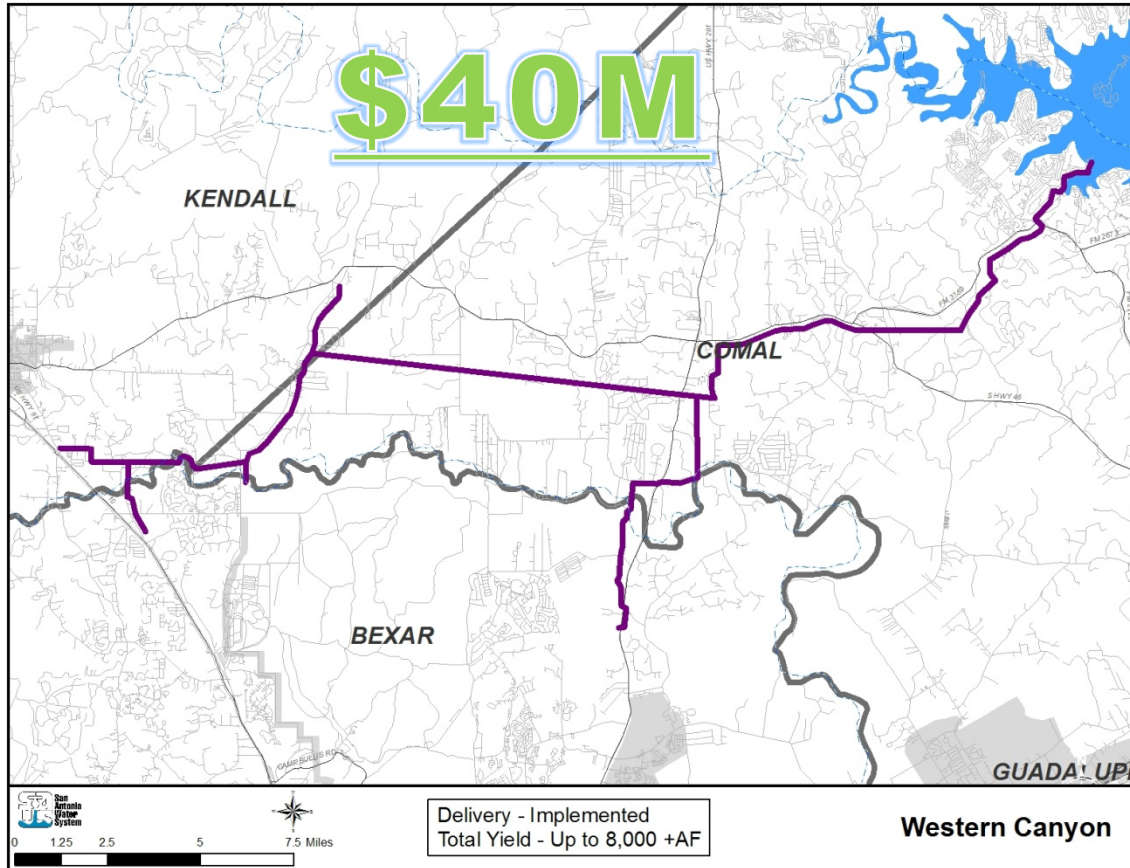
- WECO Stein Tract/Rogers Tract
- DSP Trinity Aquifer wells



- Oliver Ranch: ~3,000 AFY
- BSR: ~500 AFY
- First Non-Edwards Supply for SAWS

SAWS Current Water Resources

Western Canyon



- Base 4,000 AFY (up to 11,000 AFY)
- 2005 – 2007
- First surface-water supply for SAWS
- Supplies north San Antonio
- Contract currently expires in 2037

SAWS Current Water Resources

Canyon Regional Water Authority (CRWA)

- Lake Dunlap – 4,000 AFY*
- Wells Ranch – 2,800 AFY (Carrizo)
- Total – 6,800 AFY*
- Supply Assumptions
 - *500 AFY lease to Cibolo through 2018
 - Lake Dunlap supply may go away in 2024 as per agreement with Guadalupe-Blanco River Authority
 - Agreement with Canyon Regional Water Authority concerning Wells Ranch expires in 2047, extendable

SAWS Current Water Resources

Medina Lake

- Inherited from Bexar Met
- SAWS Lease from BMA = 19,974 AFY
- SAWS Run-of-River Rights = ~9,000 AFY
- SAWS Treatment Capacity = ~13,000 AFY



photo courtesy of Gregg Eckhardt



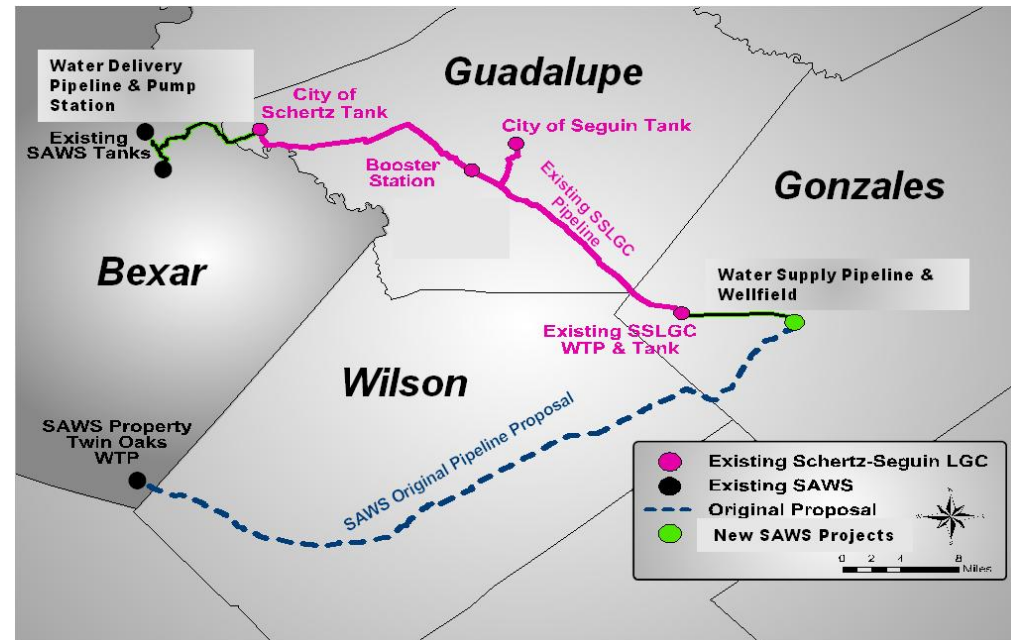
Photo courtesy of Jim O'Connor



SAWS Current Water Resources

Regional Carrizo

- Regional Partnership with Schertz-Seguin Local Government Corporation (SSLGC)
- SAWS Permit 11,688 AFY
- Excess from SSLGC and Gonzales Water Supply Corporation 5,512 AFY
- Total **17,200 AFY** (up to amount)
- Delivery late 2013

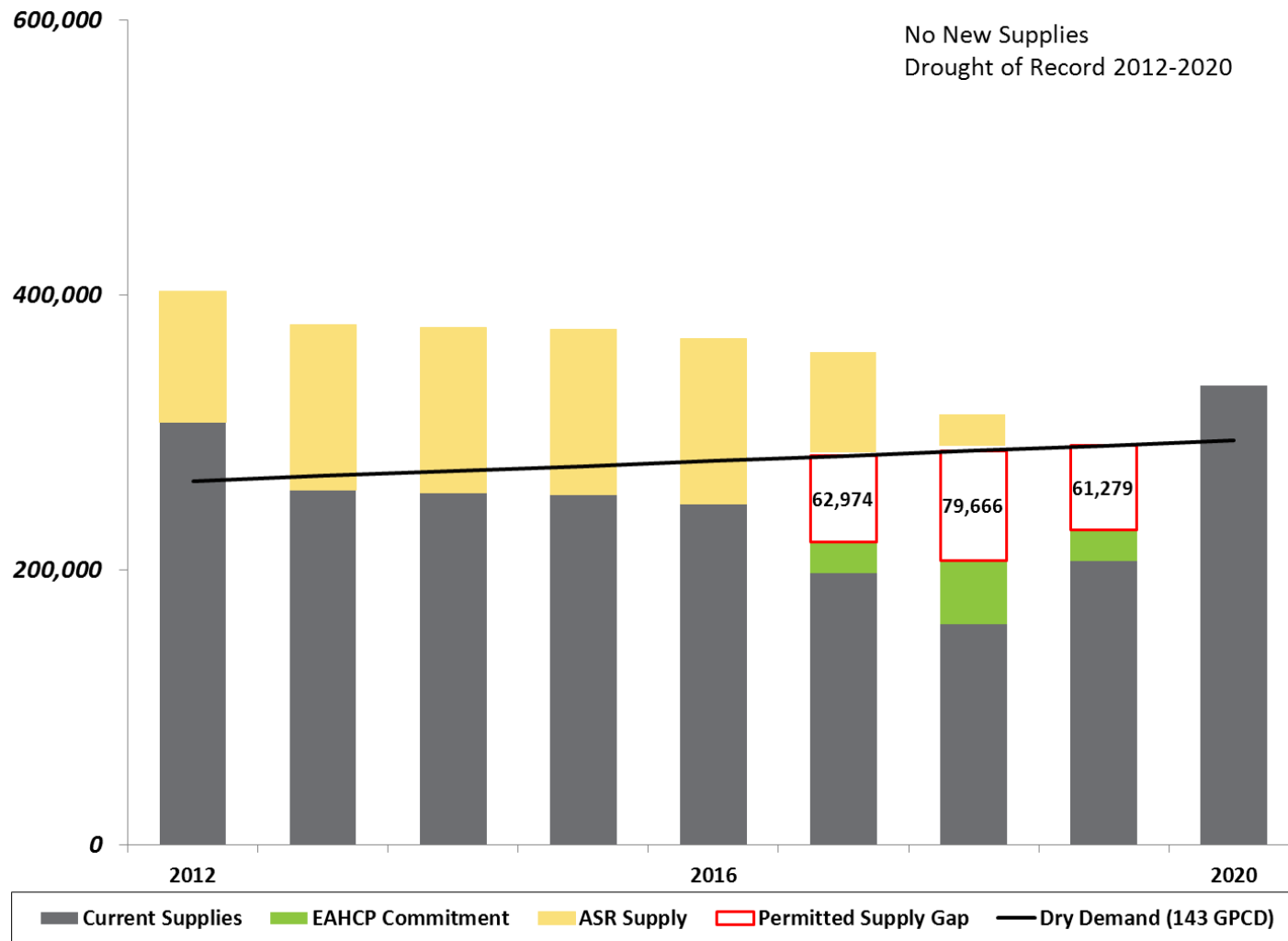


SAWS Current Water Resources

Regional Carrizo

- Mutual Regional Water Supply Contract
 - Reserves space for SAWS water in existing pipeline
 - Gives SAWS ability to purchase SSLGC surplus water
 - Provides SSLGC an emergency supply
 - **Reduces cost** for all parties
- \$133 million estimated total cost
- \$82 million committed, as of July 2013

DOR Outlook (No New Supplies)



Planned Supplies

Brackish Groundwater Desalination

- On SAWS property in Bexar County
- Three-Phase Program
 - Phase 1: 13,440 ac-ft/yr (2016)
 - Phase 2: 13,440 ac-ft/yr (2021)
 - Phase 3: 6,720 ac-ft/yr (2026)
 - Total: 33,600 ac-ft/yr
- \$296.8 million estimated total cost
 - \$179 million for Phase 1
 - \$74 million committed, as of July 2013



SAWS Planned Water Resources

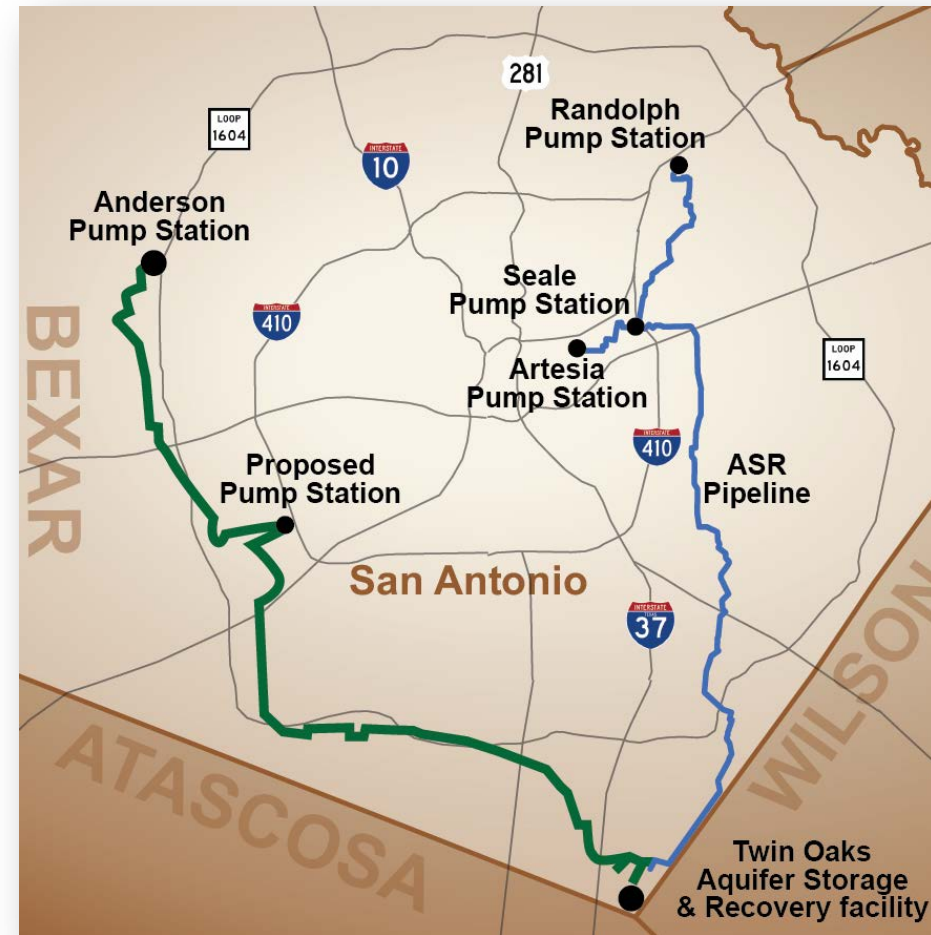
Expanded Carrizo

- New project concept
- Works in cooperation with the ASR Local Carrizo off-site wells
- May be able to utilize infrastructure that DSP started
- Geology and preliminary feasibility indicate up to 21,000 AFY of production
 - Groundwater Management Area 13 Desired Future Conditions not exceeded

SAWS Planned Water Resources

Water Resources Integration Pipeline (WRIP)

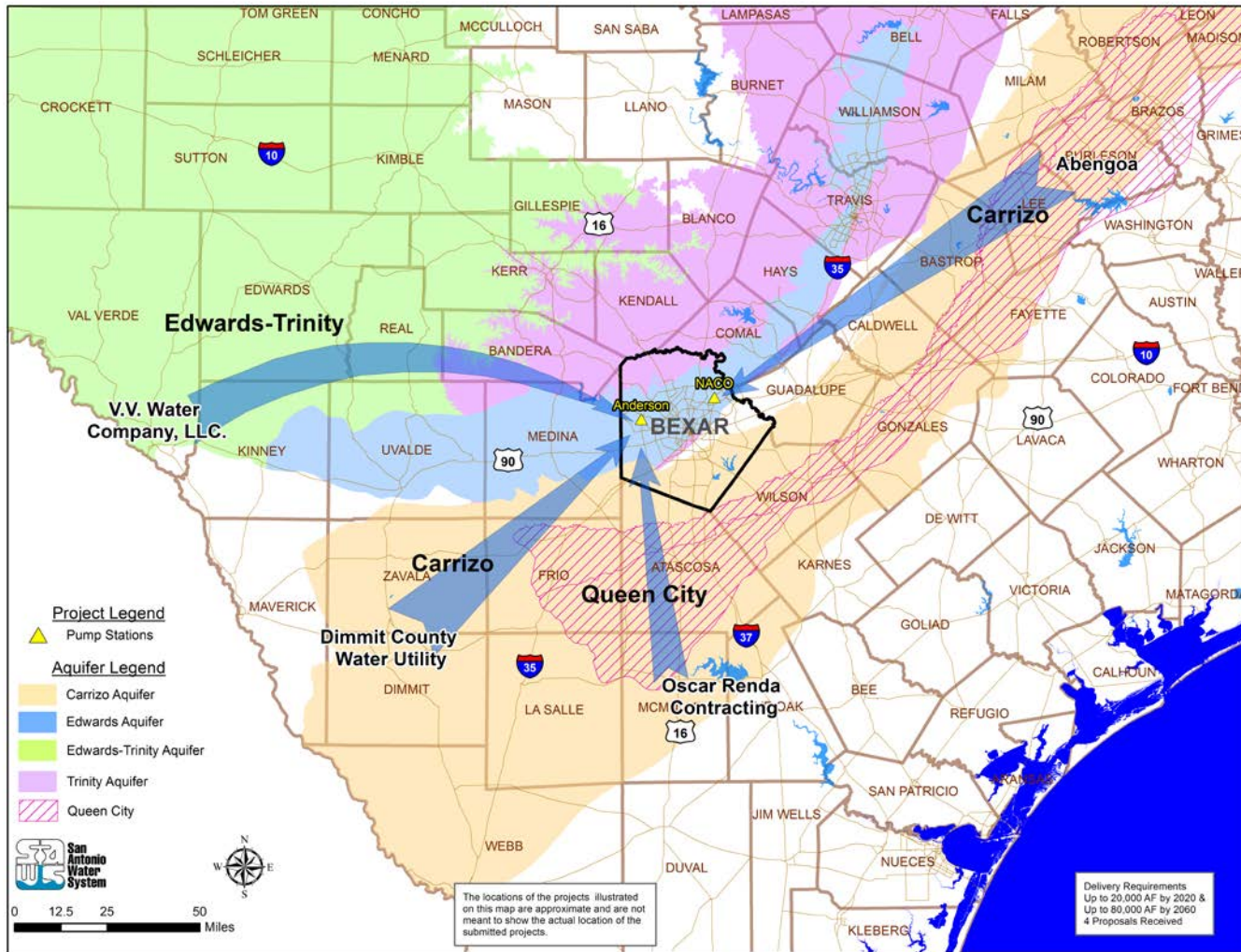
- 45-mile integration pipeline
 - Phase I complete by 2016
 - Phase II complete by 2022
- Provides transport flexibility
 - Desal supply
 - Local Carrizo Aquifer supply
 - Expanded Carrizo Aquifer supply
 - ASR supply
- \$205 million estimated program cost, as of July 2013



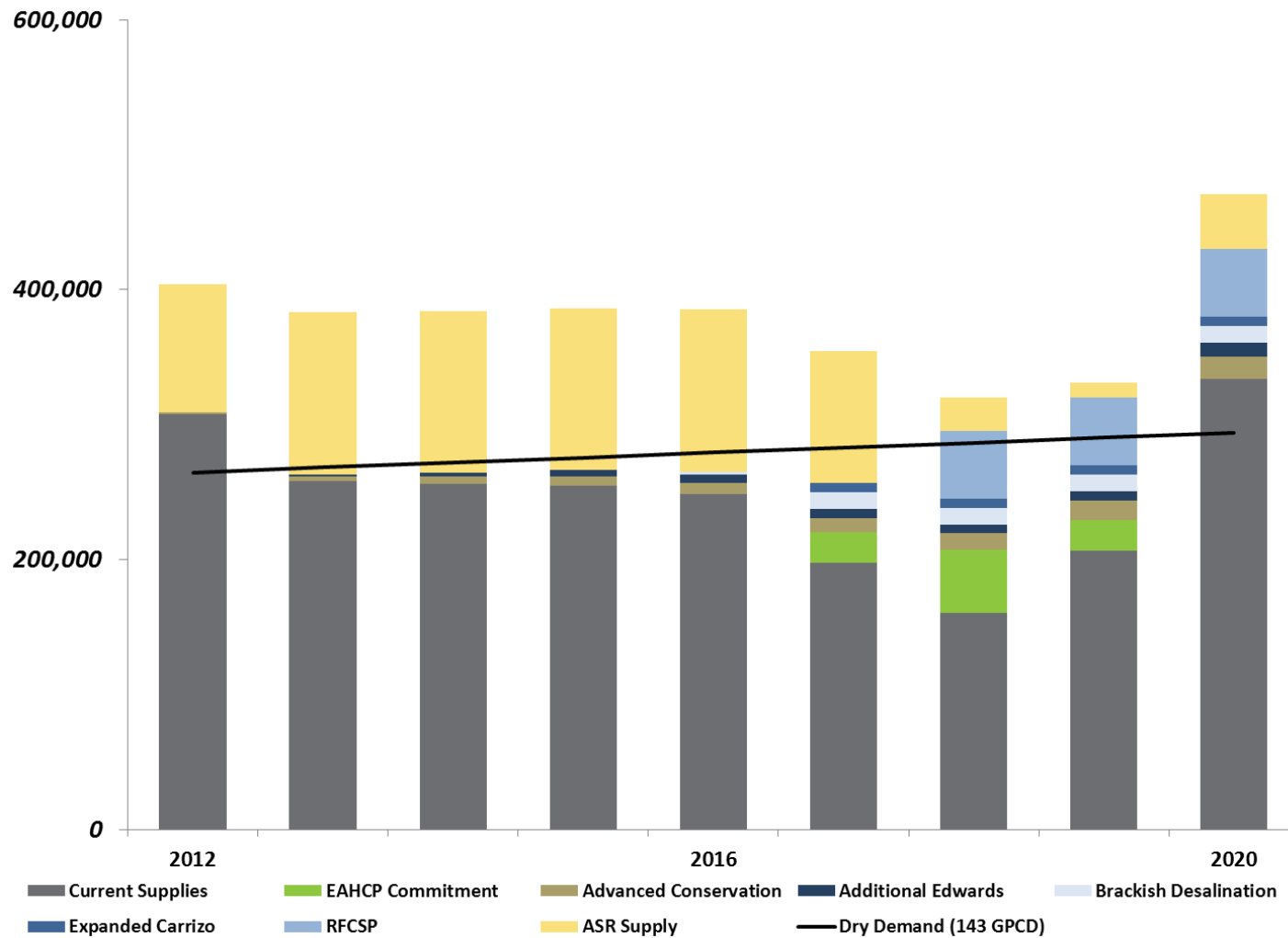
Regional Water Supply Project

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

Regional Water Supply Project

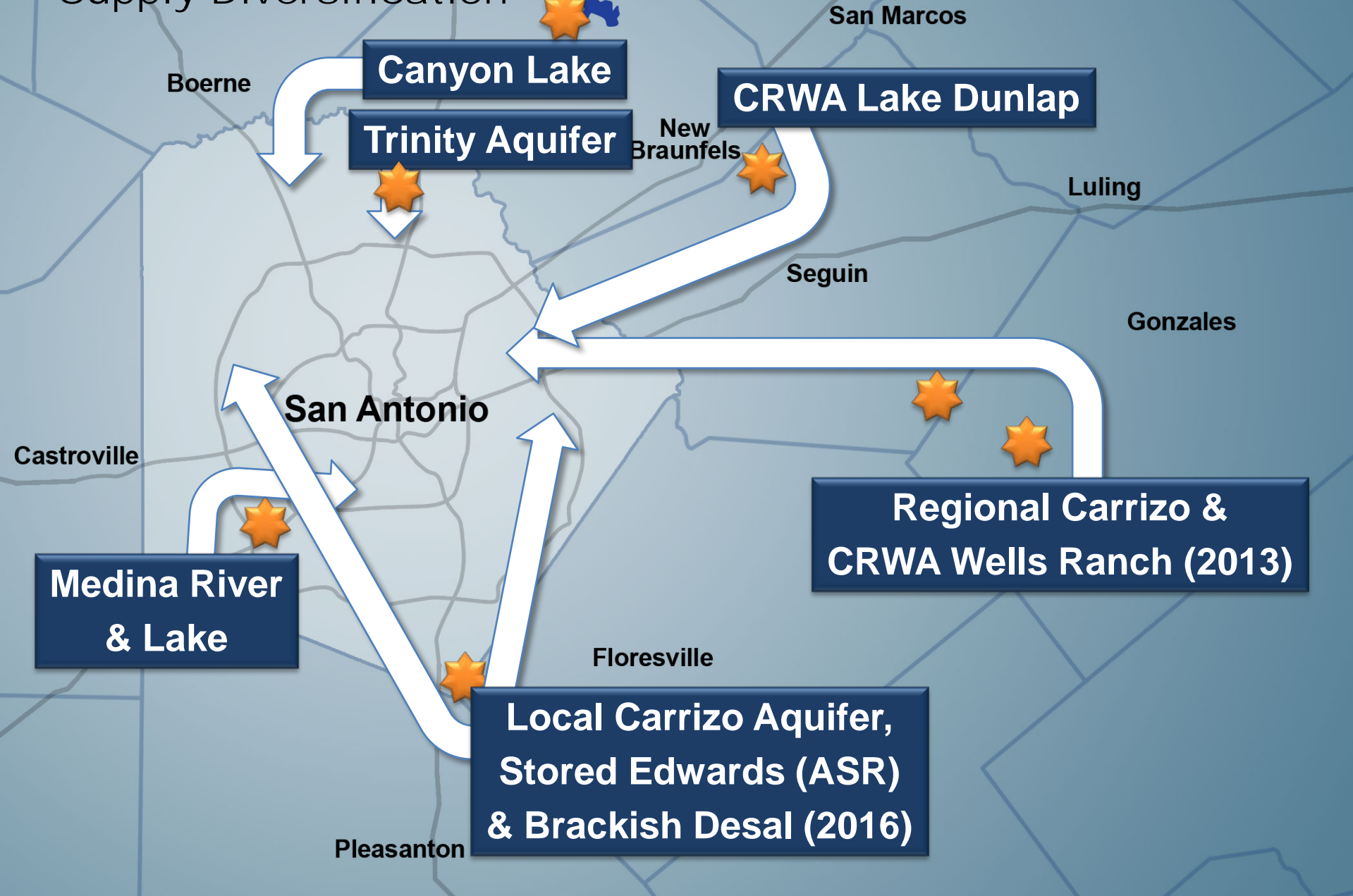


DOR Outlook (Near-Term)



Managing the Drought of Record (DOR)

Supply Diversification



Next Steps

Implementation

- Regional Carrizo coming 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 WMP represents a sustainable, affordable water supply strategy through 2040
- Adaptive management crucial to plan's success

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