



2012 Water Management Plan

August 22, 2012

Alamo Area Council of Governments

Greg Flores

Vice President of Public Affairs

Charles Ahrens

Vice President of Water Resources and Conservation

2012 Water Management Plan

Planning Assumptions

- Per Capita Water Use
 - 143 gallons per capita per day (GPCD) in 2011, the hottest, driest year recorded in Texas
- Population Projection for Entire Service Area
 - 1.2% annual growth or ~20,000 people per year
- Current Supplies
 - As impacted by drought and the deepest restrictions
- Drought of Record
 - Replicate the worst case scenario from the 1950s

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Permitted Supplies and Demand

Supply Sources	2004	2012 Unrestricted			Firm in a Drought of Record*		
	SAWS	SAWS	DSP	Total	SAWS	DSP	Total
Edwards Aquifer	208,067	258,945	35,585	294,530	99,248	20,639	119,887
Trinity Aquifer	3,000	3,000	5,800	8,800	0	2,000	2,000
Carrizo Aquifer (Local)	-	6,400	1,000	7,400	6,400	1,000	7,400
Canyon Lake	-	8,500	-	8,500	8,500	-	8,500
Carrizo Aquifer (Regional)	-	17,200	2,800	20,000	17,200	2,800	20,000
Lake Dunlap	-	-	3,500	3,500	-	3,500	3,500
Medina	-	-	13,000	13,000	-	0	0
Subtotal	211,067	294,045	61,685	355,730	131,348	29,939	161,287
Aquifer Storage & Recovery	4,916	93,000	-	93,000	93,000	-	93,000
Total	216,483	387,045	61,685	448,730	224,348	29,939	254,287
2011 Demand							
All Sources		217,000	44,000	261,000	-	-	-

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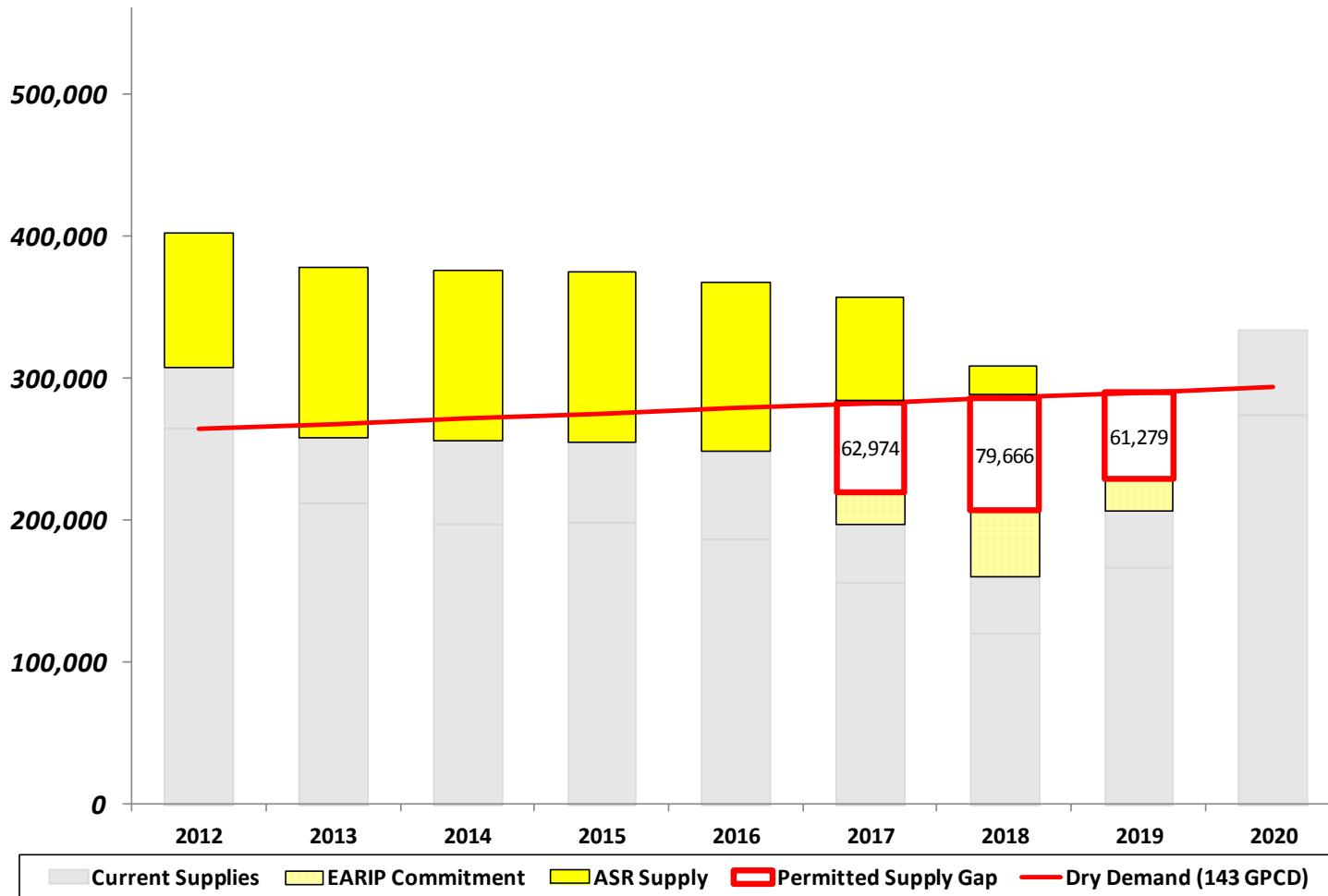
*Includes EARIP commitment

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Drought of Record Supply Gaps

No New Supplies 2012 - 2020



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Worst case scenario with no additional supplies

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Filling the Supply Gaps

Strategic Elements

- Additional Edwards Supplies (underway)
- Brackish Groundwater Desalination (underway)
- Expanded Local Carrizo Aquifer (new element)
- Regional Water Supply Project (RFCSP underway)
- Demand Reductions (national leader)

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Planned Supplies

Edwards Aquifer Permitted Rights

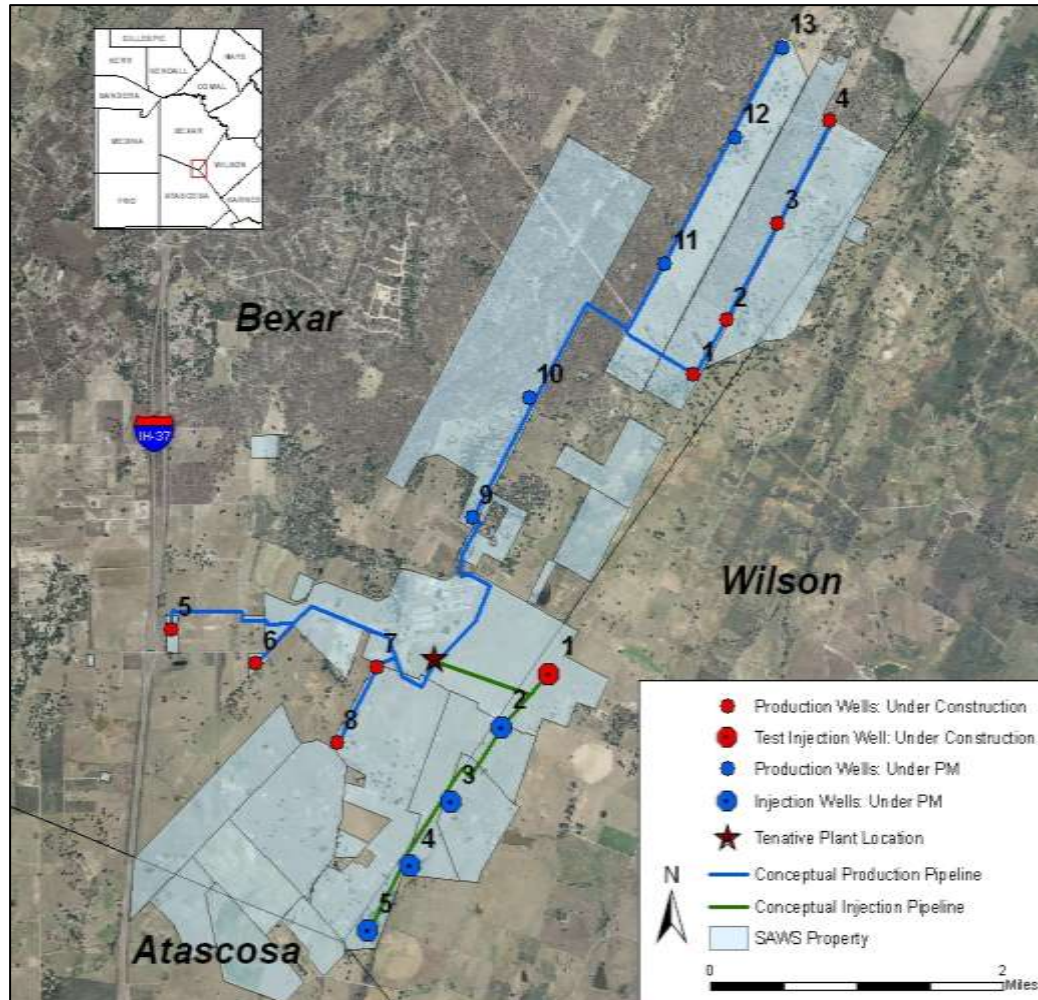
- Current purchase price is \$5,000 per acre-foot
- Currently 23 parties are on the waiting list to sell their Edwards permits
 - Over 14,000 acre-feet
 - Some currently under lease and would require lease maintenance

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Planned Supplies

Brackish Desalination Plant



- Southern Bexar County on SAWS property
- Three-Phase Program
 - Phase 1: 11,200 ac-ft/yr (2016)
 - Phase 2: 11,200 ac-ft/yr (2021)
 - Phase 3: 5,600 ac-ft/yr (2026)
- \$229 million estimated total program cost
 - \$145 million for Phase 1
 - \$46 million committed to date

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Planned Supplies

Expanded Carrizo a New Project Concept

- In conjunction with ASR Local Carrizo wells
- Geology and preliminary feasibility indicate up to 21,000 acre-feet of production
- Total capital costs \$34,000,000

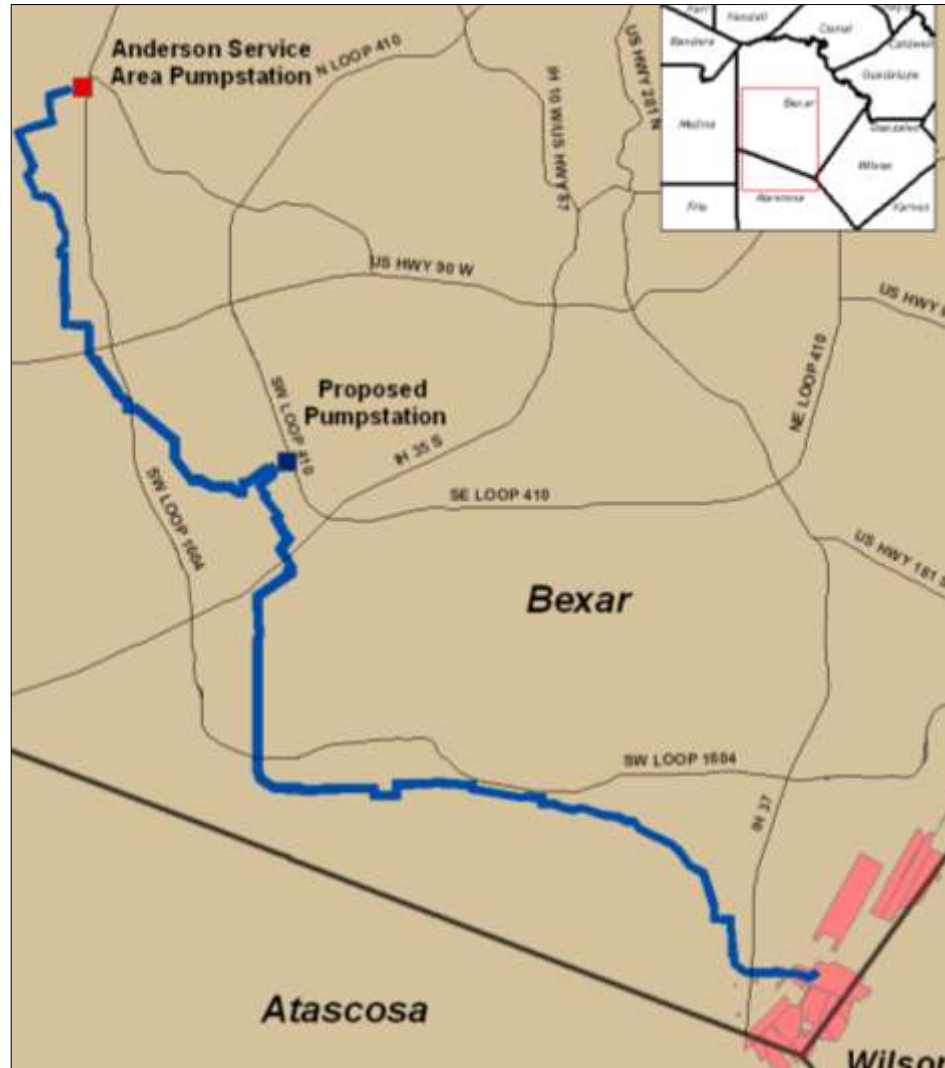
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Planned Supplies

Integration Pipeline

- 45-mile integration pipeline
 - Phase I complete by 2016
 - Phase II complete by 2022
- Provides transport flexibility
 - Desal supply
 - Local Carrizo Aquifer supply
 - ASR supply
 - Crosses former BexarMet area to far west side
- \$182 million estimated program cost



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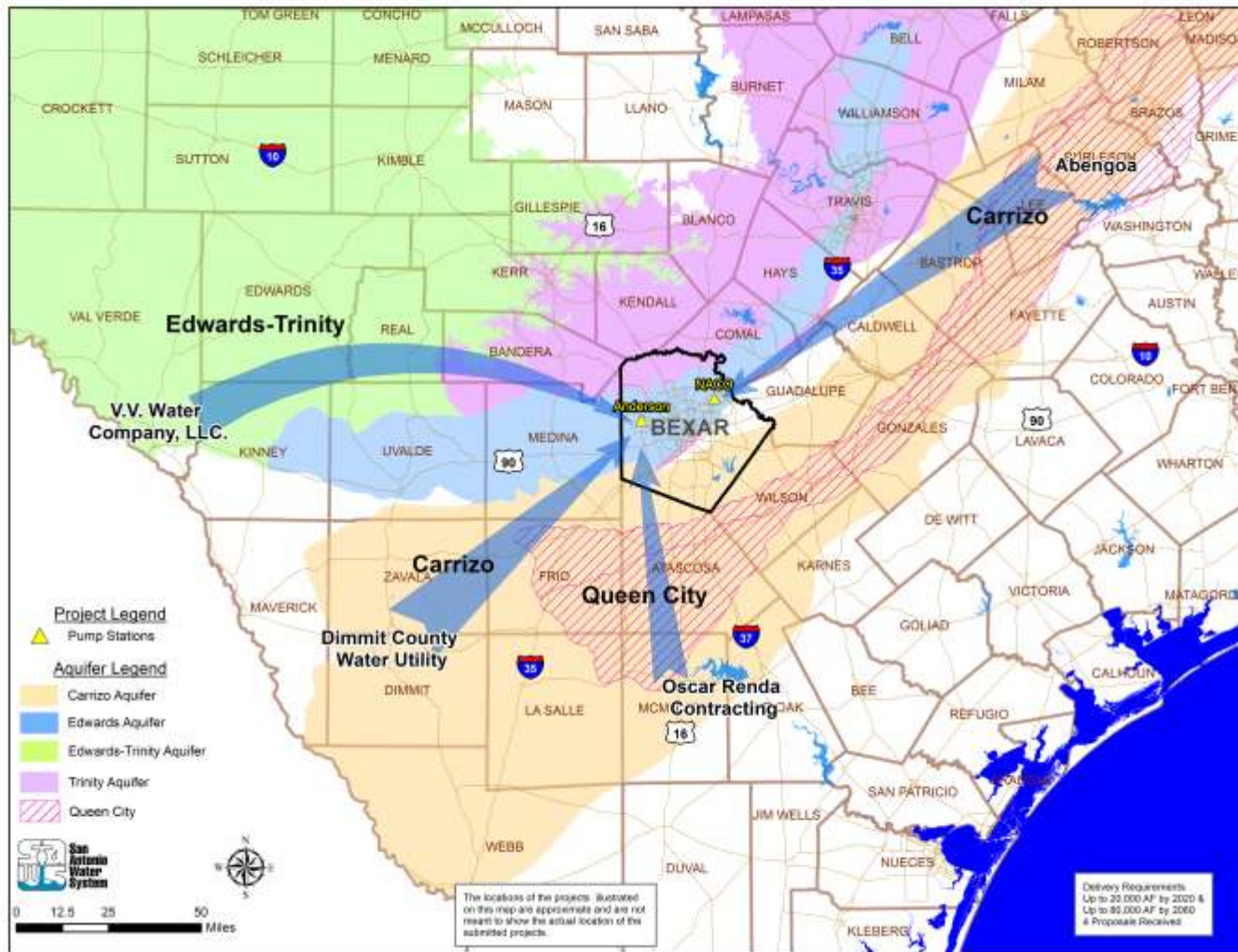
Planned Supplies

Regional Water Supply Project

- Originally received nine submittals to RFCSP
- After thorough review, four finalists:
 - Abengoa/Blue Water
 - Dimmit County Water Utility
 - Oscar Renda Contracting
 - V.V. Water Company, LLC
- Next step is to interview the four respondents this fall
- Projected selection by end of year

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Regional Water Supply Project Finalists



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Water Management Strategies

Filling the Supply Gaps

Planned Supply Source	Recommended	Alternate
Additional Edwards Rights	10,900 ac-ft/yr acquired in 2013	10,900 ac-ft/yr acquired in 2013
Brackish Desal Plant	11,200 ac-ft/yr on-line in 2016 22,400 ac-ft/yr in 2021 28,000 ac-ft/yr in 2026	22,400 ac-ft/yr on-line in 2016 28,000 ac-ft/yr in 2021
Expanded Local Carrizo	7,000 ac-ft/yr on-line in 2017 14,000 ac-ft/yr in 2022 21,000 ac-ft/yr in 2026	7,000 ac-ft/yr on-line in 2017 21,000 ac-ft/yr in 2022
Regional Water Supply Project (RFCSP)	Up to 50,000 ac-ft/yr starting in 2018	N/A
Demand Reduction		
- Water savings from programs to reduce dry year GPCD to 135	1,650 ac-ft/yr	1,650 ac-ft/yr
- Drought restrictions (Stage 1)	Starts at 650' Edwards level	Starts at 650' Edwards level
- Drought restrictions (Stg. 3 & 4)	No worse than 1x per week	1x every other week + surcharge

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Development of Regional Project

PROS

- Locks up long-term alternative supply at today's costs
- Reduced reliance on Edwards
 - Benefits Aquifer levels and Springs
 - Benefits ASR levels
- Reduced amount of time in drought restrictions
 - Irrigation no worse than 1x per week
- Avoidance of possible drought restriction surcharge
- First supply gap in 2039 (versus 2027 in alternate scenario)

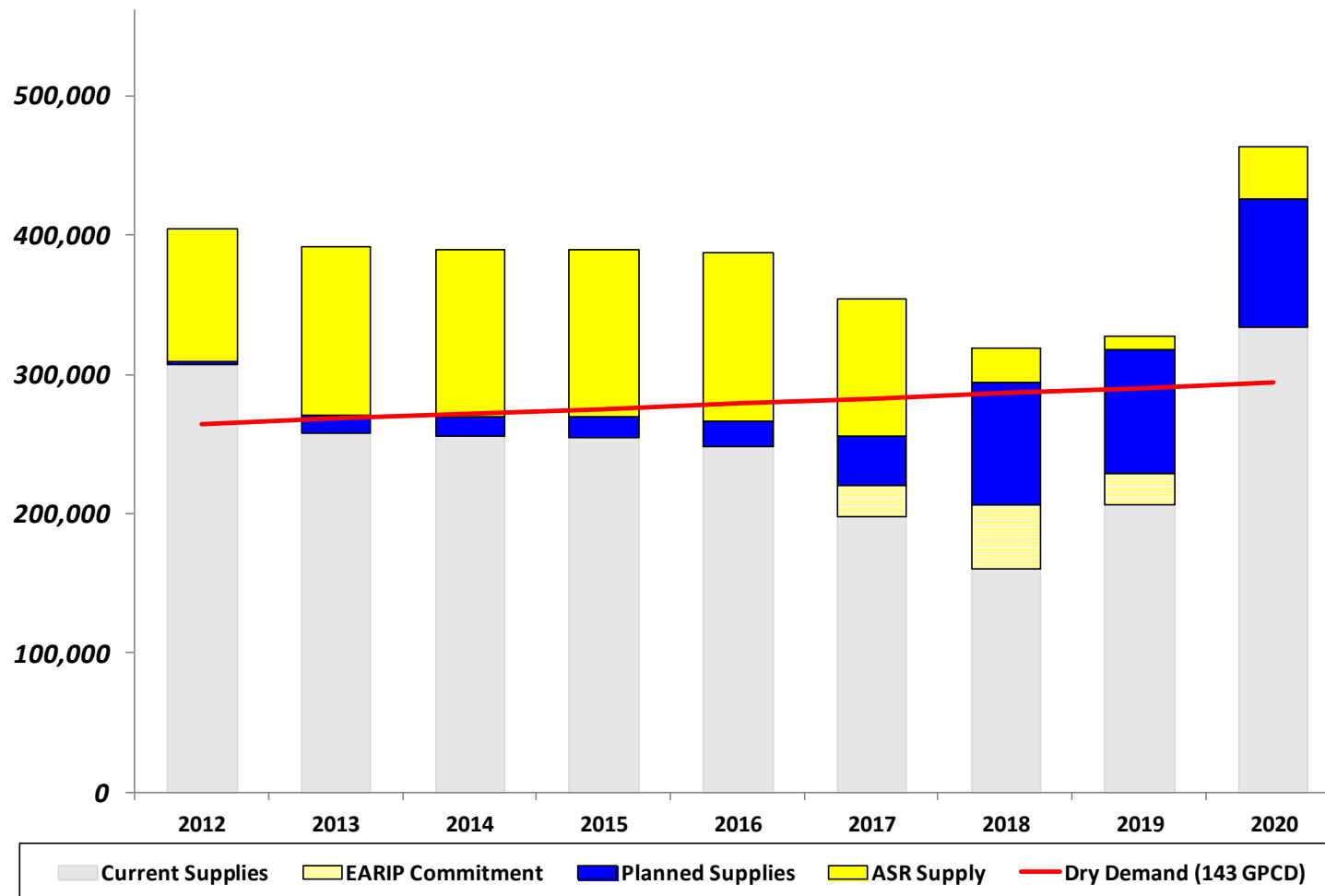
CONS

- Higher water rate increases
 - Approximately \$8 per month in 2018, preliminary estimates
- Potential impact of higher prices on irrigation sales
- Easing of drought restrictions perceived as “abandonment” of conservation message

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Recommended Strategy

Drought of Record 2012 – 2020

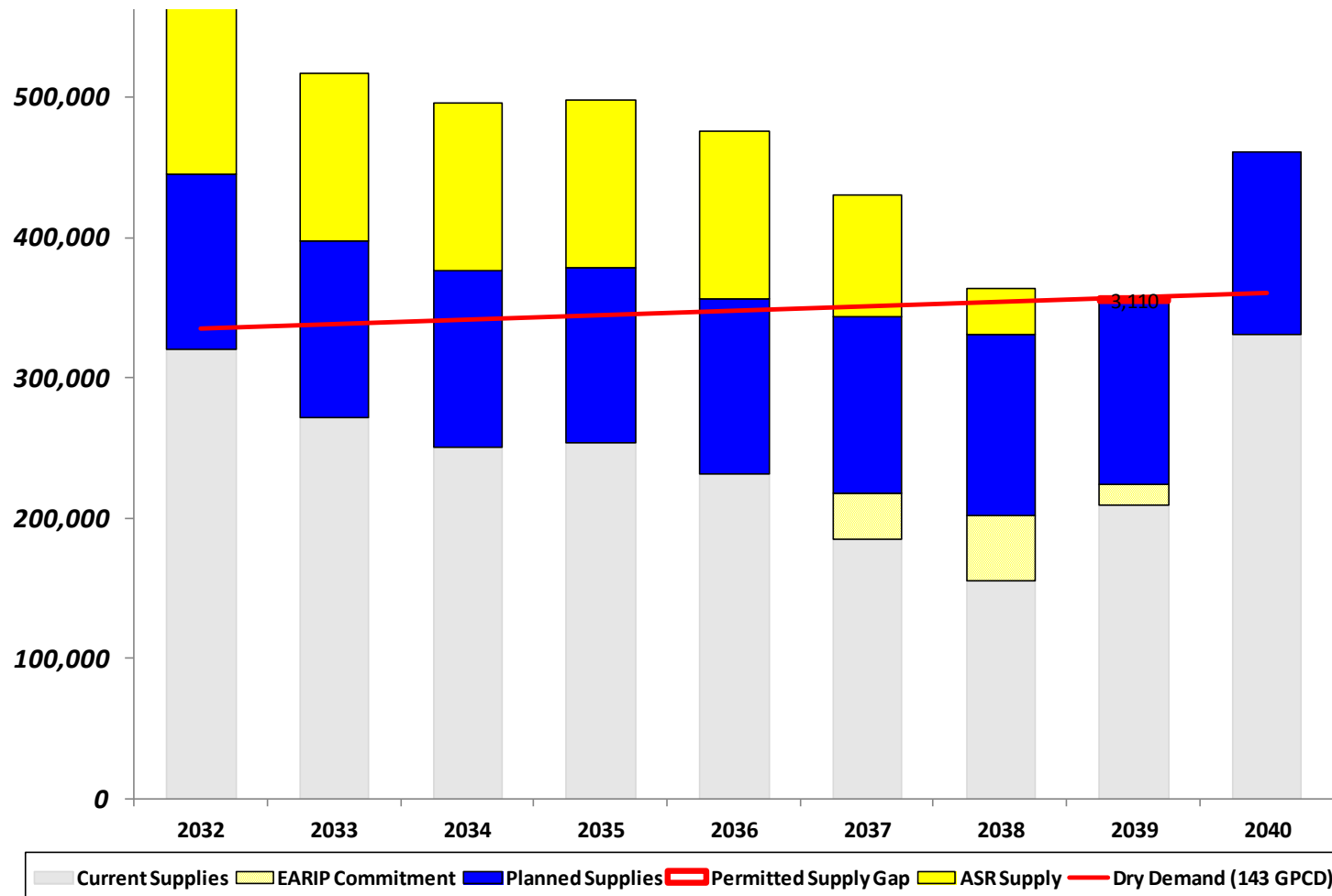


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Recommended Strategy

Drought of Record 2032 – 2040



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Drought Management Changes

- Adjustments to triggers
 - Start Once per Week watering at 650', not 660'
 - Avoid stricter outdoor watering restrictions when new supplies are on-line
- Allow use of fountains
- Ease other restrictions



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Recommendation

- Continue Track Record of Success
 - Progress since 2009 supplied San Antonio through 2011 with Once per Week outdoor watering
- Recommended Water Management Strategy
 - Large regional supply with higher rate requirements by 2018 (does not include sewer system requirements)
 - Continued focus on conservation while avoiding strict restrictions through 2039

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