



# 2012 Water Management Plan

November 7, 2012

Capital Improvements Advisory Committee

Patrick Shriver

Project Coordinator / Water Resources

# 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)
- New Water Supply Proposals (RFCSP)



November 7, 2012

2012 Water Management Plan

# 2012 Water Management Plan (WMP)

## Process

- Task Force Meetings
  - 15 meetings, 3 hours each
  - SAWS Executive Management and relevant staff
- Community Outreach
- City of San Antonio City Council One-on-Ones
- SAWS Board One-on-Ones
- SAWS Board Policy & Planning Meetings
  - April 2012, July 2012, September 2012
  - Updated SAWS Board on Task Force process
  - Vetted Recommended Strategy and Alternative Strategy

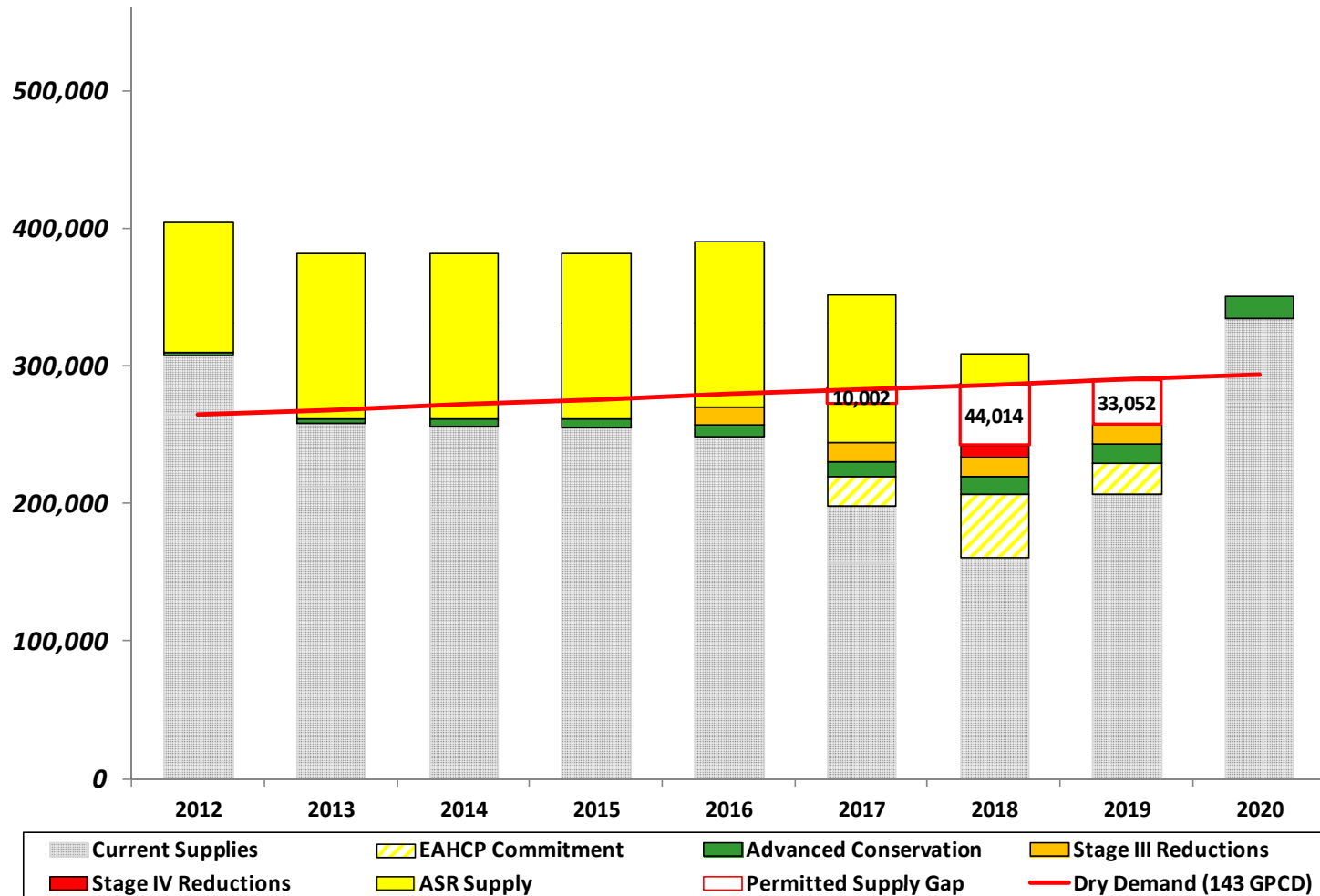
November 7, 2012

2012 Water Management Plan



# Drought of Record Supply Gaps

No New Supplies (Includes Stage III & IV) 2012 - 2020



November 7, 2012

Worst case scenario with no additional supplies

2012 Water Management Plan



# Supply and Demand during Drought

## What we know

- Supply
  - Heavily restricted during drought
  - A balanced approach of conservation and new supplies is required
  - New supplies are online, and new supplies are available
- Demand
  - Increase of ~20,000 people/year will increase demand
  - Drought increases demand (actual 2011 data)
  - Drought management alone **will not** fill the Supply Gap

November 7, 2012

2012 Water Management Plan





# 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)
  - Re-focused Water Conservation

November 7, 2012

2012 Water Management Plan



# 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

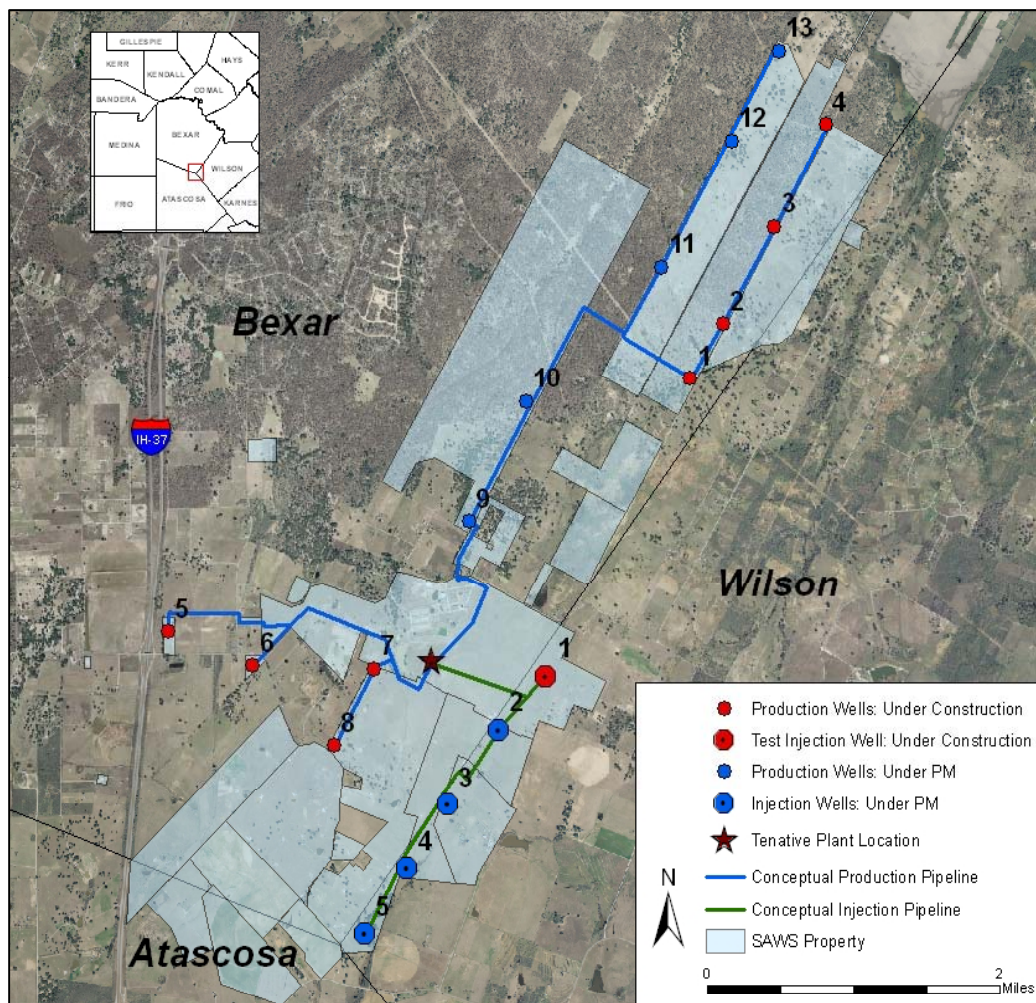
November 7, 2012

2012 Water Management Plan



# Planned Supplies

## Brackish Desalination Plant



- Southern Bexar County on SAWS property
- Three-Phase Program
  - Phase 1: 12,210 ac-ft/yr (2016)
  - Phase 2: 12,210 ac-ft/yr (2021)
  - Phase 3: 6,100 ac-ft/yr (2026)
- \$296.8 million estimated total program cost
  - \$179 million for Phase 1
  - \$37.4 million committed to date

November 7, 2012

2012 Water Management Plan



# 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

November 7, 2012

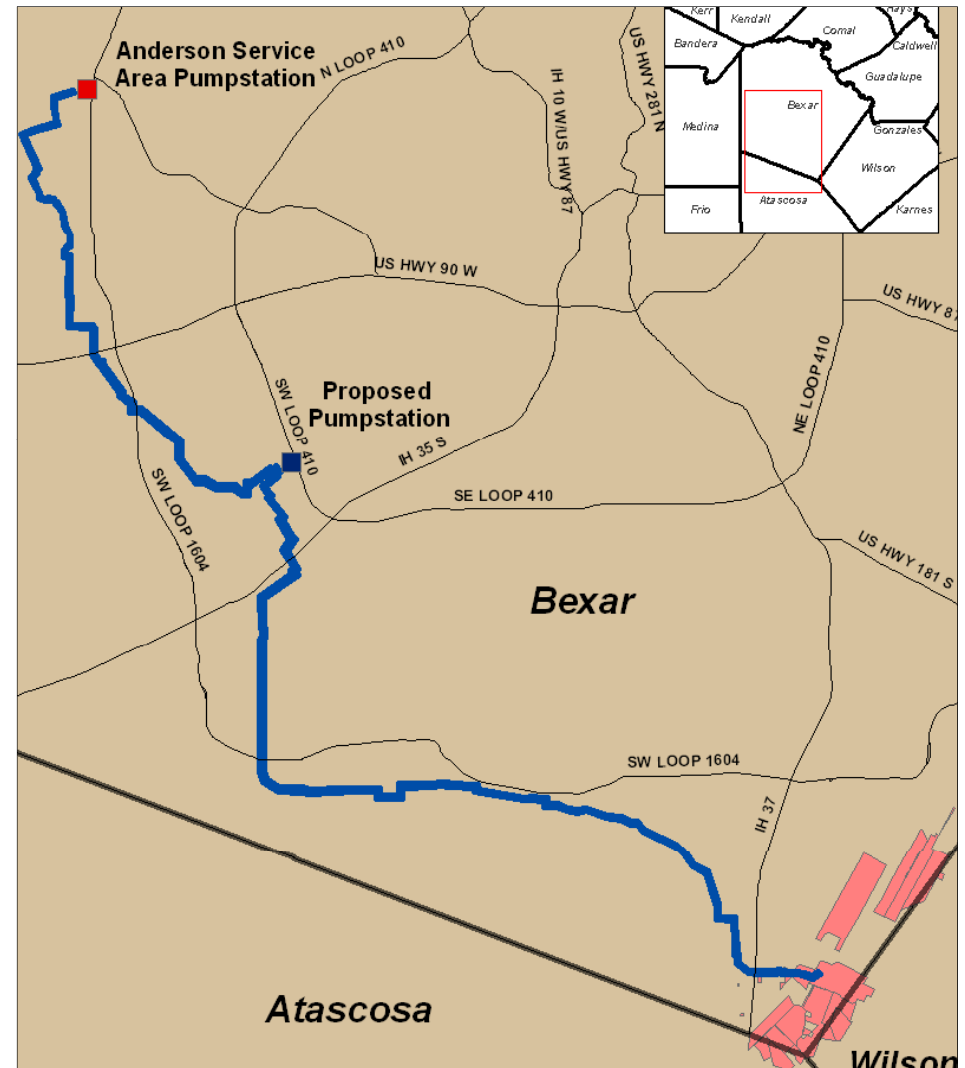
2012 Water Management Plan



# 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



November 7, 2012

2012 Water Management Plan

# Planned Supplies

## Regional Water Supply Project

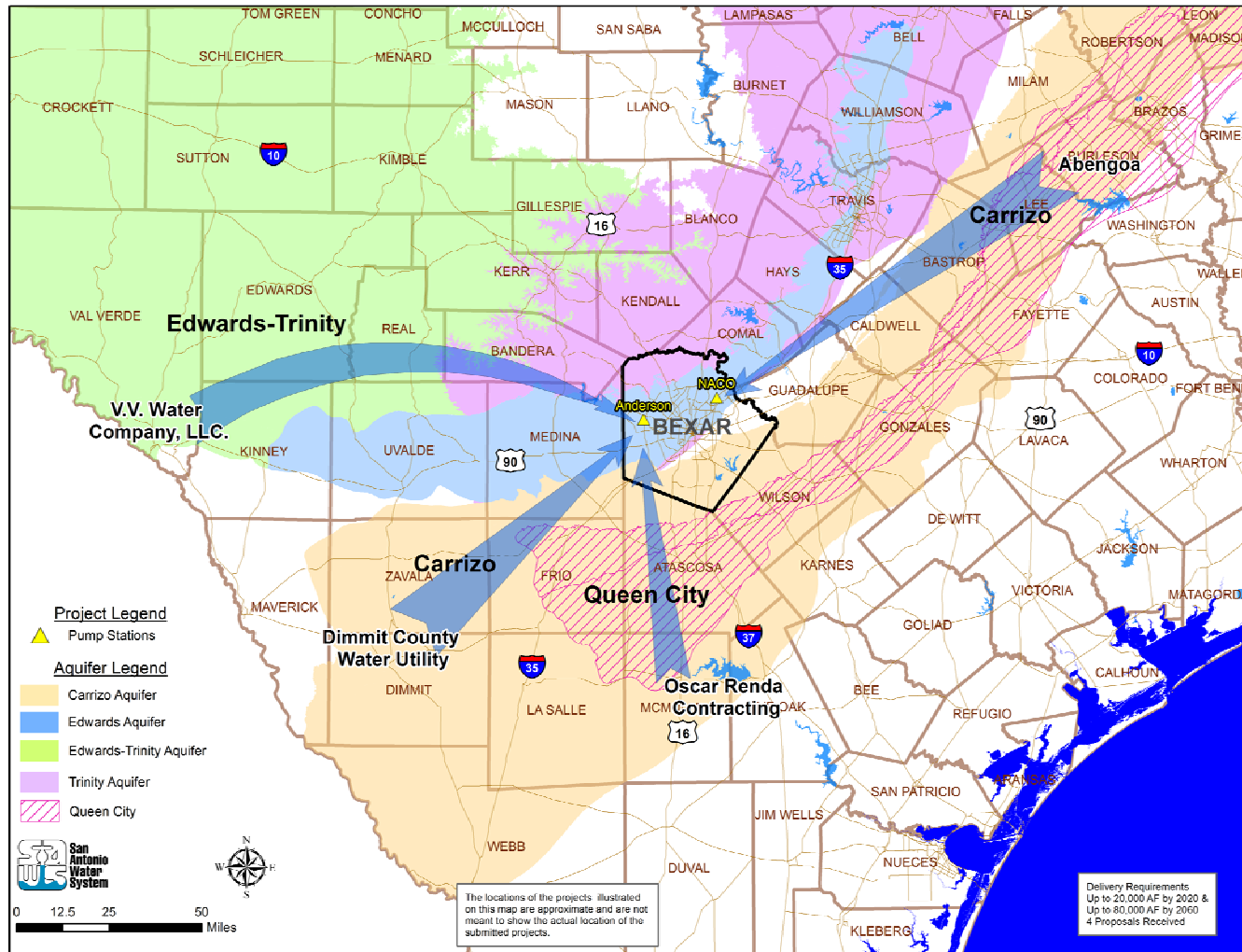
- Originally received nine submittals to RFCSP
- After thorough review, four finalists:
  - Abengoa/Blue Water
  - Dimmit County Water Utility
  - Oscar Renda Contracting
  - V.V. Water Company, LLC
- Next step is to interview the four respondents this fall
- Projected selection by end of year

November 7, 2012

2012 Water Management Plan



# Regional Water Supply Project Finalists



November 7, 2012

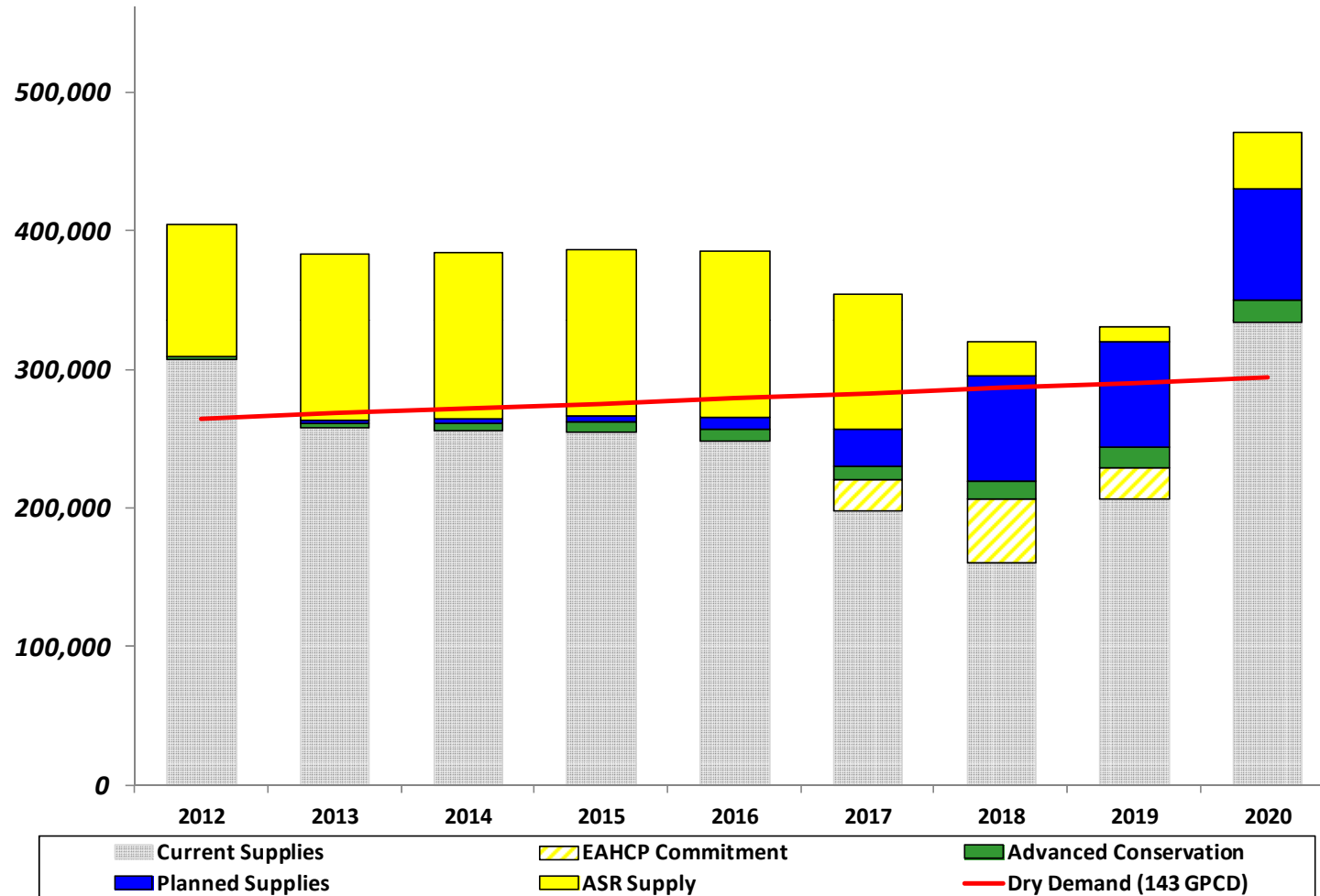
2012 Water Management Plan





# Recommended Strategy

## Drought of Record 2012 - 2020



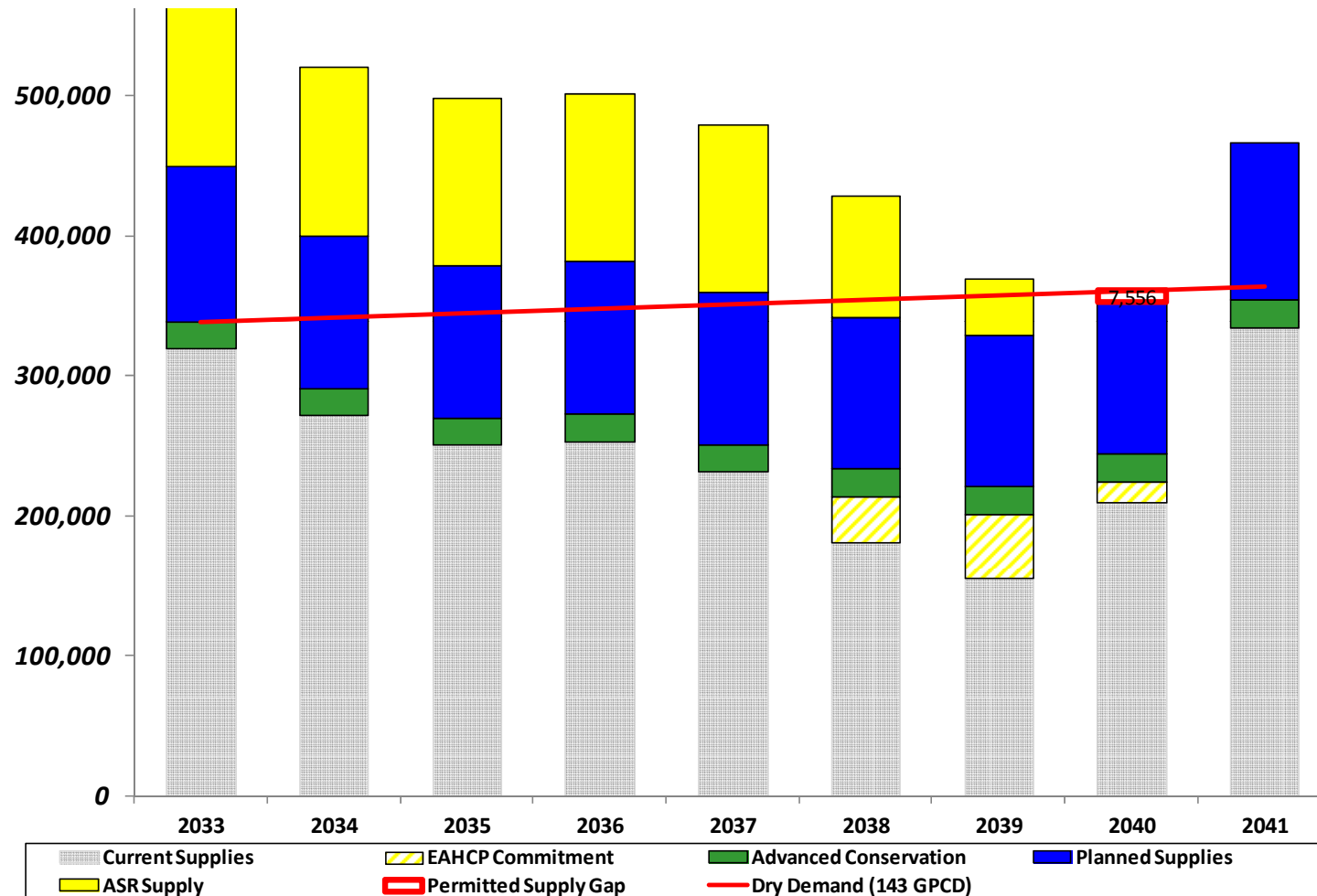
November 7, 2012

2012 Water Management Plan



# Recommended Strategy

## Drought of Record 2033 - 2041



November 7, 2012

2012 Water Management Plan



# 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 2040

## CONS

- Higher water rate increases
- Potential impact of higher prices on irrigation sales
- Easing of drought restrictions perceived as “abandonment” of conservation message

# 2009 WMP Update vs. 2012 WMP

## Fundamental Differences

### 2009 WMP Update

- Conservation as **demand suppressor**
- Maintain Edwards Supply + 2,000 acre-feet per year until 2014
- Trinity 3,500 acre-feet per year (AFY), 0 AFY in drought
- ASR capacity 100,000 AF
- Brackish Desal 11,800 AFY (perhaps additional phases)
- Regional Carrizo 11,687 AFY
- Recharge
- LCRA-SAWS Water Supply Project

### 2012 WMP

- Conservation as **supply**
- Maintain Edwards Supply + **10,900 AFY**
- Trinity **8,000 AFY, 2,000 AFY in drought**
- ASR capacity **120,000 AF**
- Regional Carrizo **up to 17,200 AFY**
- Brackish Desal **30,525 AFY** (within three phases)
- **Expanded Local Carrizo Aquifer**
- **Regional Water Supply Project (RFCSP)**

November 7, 2012

2012 Water Management Plan



# 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 2040



# 2012 Water Management Plan

November 7, 2012

Capital Improvements Advisory Committee

Patrick Shriver

Project Coordinator / Water Resources

# 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	<b>294,530</b>	99,248	20,639	<b>119,887</b>
Trinity Aquifer	3,000	3,000	5,800	<b>8,800</b>	0	2,000	<b>2,000</b>
Carrizo Aquifer (Local)	-	6,400	1,000	<b>7,400</b>	6,400	1,000	<b>7,400</b>
Canyon Lake	-	8,500	-	<b>8,500</b>	8,500	-	<b>8,500</b>
Carrizo Aquifer (Regional)	-	17,200	2,800	<b>20,000</b>	17,200	2,800	<b>20,000</b>
Lake Dunlap	-	-	3,500	<b>3,500</b>	-	3,500	<b>3,500</b>
Medina	-	-	13,000	<b>13,000</b>	-	0	<b>0</b>
<b>Subtotal</b>	<b>211,067</b>	<b>294,045</b>	<b>61,685</b>	<b>355,730</b>	<b>131,348</b>	<b>29,939</b>	<b>161,287</b>
Aquifer Storage & Recovery	4,916	93,000	-	<b>93,000</b>	93,000	-	<b>93,000</b>
<b>Total</b>	<b>216,483</b>	<b>387,045</b>	<b>61,685</b>	<b>448,730</b>	<b>224,348</b>	<b>29,939</b>	<b>254,287</b>
<b>2011 Demand</b>							
<b>All Sources</b>		<b>217,000</b>	<b>44,000</b>	<b>261,000</b>	-	-	-

\*Includes EARIP commitment

November 7, 2012

2012 Water Management Plan



# Outreach to Date

- SAWS Policy and Planning Meetings
- CEO one-on-one with City Council Members
- Citizens' Advisory Panel
- Community Conservation Committee
- Local and regional Chambers of Commerce
- SAWS employees
- Regional Neighbors
- Customer Survey
- Neighborhood and Homeowner Associations and Alliances

November 7, 2012

2012 Water Management Plan





# Outreach Planned

## Near-term

- BexarMet Integration Advisory Committee
- Canyon Regional Water Authority
- Trinity Glen Rose Groundwater Conservation District
- Trade and Civic Organizations – SA Restaurant Assoc., SAMA, COPS/Metro, Real Estate Council, etc.
- Editorial Boards

November 7, 2012

2012 Water Management Plan



# Projects Funded by the Water Supply Fee

Water Supply Project	Water Supply Fee Expenditures	Average Yield Acre-Feet
Aquifer Storage & Recovery	\$192 million	120,000
ASR Integration	\$56.6 million	N/A
BSR	\$2.4 million	500
Building	\$14 million	N/A
Edwards Aquifer Groundwater	\$221.2 million	295,000
Groundwater Desalination	\$37.4 million	30,525
Local Carrizo	\$14.8 million	6,400
Oliver Ranch	\$10 million	3,000
Recycled Water	\$149.3 million	25,000
Regional Carrizo – Gonzales	\$35.2 million	17,237
System Integration	\$13.8 million	N/A
Watershed Protection	\$9.5 million	N/A
Western Canyon	\$14.2 million	8,500*

\*Current yield

November 7, 2012

2012 Water Management Plan

