2012 Water Management Plan

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)
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
Drought of Record Supply Gaps

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

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
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
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
**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
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

2012 Water Management Plan

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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
Recommended Strategy

Drought of Record 2012 – 2020

2012 Water Management Plan

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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

November 7, 2012

2012 Water Management Plan
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)
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

Capital Improvements Advisory Committee

Patrick Shriver
Project Coordinator / Water Resources
## Permitted Supplies and Demand

<table>
<thead>
<tr>
<th>Supply Sources</th>
<th>2004</th>
<th>2012 Unrestricted</th>
<th>Firm in a Drought of Record*</th>
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<tbody>
<tr>
<td></td>
<td>SAWS</td>
<td>SAWS</td>
<td>DSP</td>
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<tr>
<td>Edwards Aquifer</td>
<td>208,067</td>
<td>258,945</td>
<td>35,585</td>
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<tr>
<td>Trinity Aquifer</td>
<td>3,000</td>
<td>3,000</td>
<td>5,800</td>
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<tr>
<td>Carrizo Aquifer (Local)</td>
<td>-</td>
<td>6,400</td>
<td>1,000</td>
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<tr>
<td>Canyon Lake</td>
<td>-</td>
<td>8,500</td>
<td>-</td>
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<tr>
<td>Carrizo Aquifer (Regional)</td>
<td>-</td>
<td>17,200</td>
<td>2,800</td>
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<tr>
<td>Lake Dunlap</td>
<td>-</td>
<td>-</td>
<td>3,500</td>
</tr>
<tr>
<td>Medina</td>
<td>-</td>
<td>-</td>
<td>13,000</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>211,067</strong></td>
<td><strong>294,045</strong></td>
<td><strong>61,685</strong></td>
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<tr>
<td>Aquifer Storage &amp; Recovery</td>
<td>4,916</td>
<td>93,000</td>
<td>-</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>216,483</strong></td>
<td><strong>387,045</strong></td>
<td><strong>61,685</strong></td>
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### 2011 Demand

<table>
<thead>
<tr>
<th>All Sources</th>
<th></th>
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<tr>
<td></td>
<td>217,000</td>
<td>44,000</td>
<td>261,000</td>
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</table>

*Includes EARIP commitment*
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
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
## Projects Funded by the Water Supply Fee

<table>
<thead>
<tr>
<th>Water Supply Project</th>
<th>Water Supply Fee Expenditures</th>
<th>Average Yield Acre-Feet</th>
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<tbody>
<tr>
<td>Aquifer Storage &amp; Recovery</td>
<td>$192 million</td>
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<tr>
<td>ASR Integration</td>
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<td>BSR</td>
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<td>Building</td>
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<td>Edwards Aquifer Groundwater</td>
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<td>Groundwater Desalination</td>
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<td>Local Carrizo</td>
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<td>Oliver Ranch</td>
<td>$10 million</td>
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<td>Recycled Water</td>
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<td>Regional Carrizo – Gonzales</td>
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<td>System Integration</td>
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<td>Watershed Protection</td>
<td>$9.5 million</td>
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<tr>
<td>Western Canyon</td>
<td>$14.2 million</td>
<td>8,500*</td>
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*Current yield