State of the San Antonio Water System

Robert R. Puente
President/Chief Executive Officer

American Academy of Environmental Engineers and Scientists

October 19, 2017
SAWS by the Numbers

One of Nation’s Largest Municipally Owned Utilities

- 1.8 million customers in 4 counties
- 1,700 employees
- $6 billion assets
- 12,500 miles of pipe
- $780 million operating budget
- $2 billion capital expenditures over next 5 yrs
Accomplishments

Water Innovation

• Nation’s largest recycled water system
• Nation’s largest Aquifer Storage & Recovery (ASR) system
• State of the art brackish groundwater desalination plant
• Largest P3 water project
• National leader in water conservation
Accomplishments

Operation

• Highest credit rating in SAWS history
• Seamless transition of BexarMet
• Environmental trifecta at Dos Rios
Recycled Water
Digester Gas

Equivalent to:

- Taking 31,261 cars off the roads
- Planting 38,736 acres of trees
- Reducing 19,739 tons of CO$_2$/year
Biosolids Compost

average 81,500 tons/year diverted from landfill
Environmental Sustainability

Natural Vector Control

- Purple Martins used to control insects at Water Recycling Centers
- Voracious insect eaters
- Eliminated chemical insecticides
H₂Oaks Center

One Site – Three Water Supply Projects

- Aquifer Storage & Recovery
- Brackish Desal Plant
- Carrizo Aquifer
Aquifer Storage & Recovery

Potential Capacity over 200,000 acre-feet

Storage High before Drought
(March 28, 2011)

2011 – 2015 Drought

143,918 AF
Vista Ridge Regional Water Project

National Recognition

- Tomorrow's Water at Today’s Price
- Unprecedented Risk-shifting
- Secure Water Future
- SAWS responsible for Integration Infrastructure
Water Supply Diversification

- Canyon Lake
- Regional Carrizo
- CRWA Lake Dunlap
- CRWA Wells Ranch
- Vista Ridge (2020)
- Trinity Aquifer
- Medina Lake
- Aquifer Storage & Recovery
- Local Carrizo
- Brackish Desal
Supply Portfolio Diversification

470,000 AF 2017

550,000 AF 2070

State of the San Antonio Water System
Water Demand Increase at 225 GPCD

50% Reduction in the last 40 years

1982

225 GPCD

2016

225

182K AF

451K AF

215K AF

236K AF

GPCD Reduced to 117

117

Demand

Water Needs
Treatment Shortfall at 225 GPCD

Current Treatment Capacity: 187 MGD

- 129 MGD of Treatment
- 243 MGD of Treatment
- 98 MGD Additional Treatment
- 145 MGD of Treatment

1982 to 2016
Changing Investment Priorities

1980 – 1990s
201 Program

2000 – 2020
Water Supply

2013 – 2025
Consent Decree
Consent Degree 2013 – 2025

• SAWS has met all regulatory compliance requirements to date

• Cost of the 10 Year Program
  – O&M $ 250 M
  – CIP Projection $1.25 B
Historical/Projected Capital Investment

2018-2022 CIP is $2 billion or 25% more than 2013-2017 CIP

Average = $229 M (excludes Bexar Met)
Average = $322 M
Average = $402 M

Water Supply
Water Delivery
Wastewater
### SAWS Rates Last Ten Years and Proposed Future Rates

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>2008</td>
<td>0.0%</td>
<td>3.9%</td>
<td>0.0%</td>
<td>6.5%</td>
<td>7.9%</td>
<td>8.4%</td>
<td>5.1%</td>
<td>5.3%</td>
<td>7.5%</td>
<td>6.8%</td>
</tr>
<tr>
<td>2018</td>
<td>5.8%</td>
<td>4.7%</td>
<td>12.4%</td>
<td>7.4%</td>
<td>3.5%</td>
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Average residential bill assuming 7,092 gals water/ 5,668 gals sewer usage before EAA and TCEQ pass-through. Excludes COSA Stormwater.
Drivers for Future Rate Adjustments

• Capital Improvement Program
• Vista Ridge Project
• Automated Metering
Increasing Efficiency Across the Organization

Employee Count Steady Despite Service Growth Since 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Employees</th>
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<tbody>
<tr>
<td>2009</td>
<td>1,696</td>
</tr>
<tr>
<td>2010</td>
<td>1,647</td>
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<tr>
<td>2011</td>
<td>1,669</td>
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<tr>
<td>2012</td>
<td>1,889</td>
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<tr>
<td>2013</td>
<td>1,732</td>
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<tr>
<td>2014</td>
<td>1,699</td>
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<tr>
<td>2015</td>
<td>1,724</td>
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<tr>
<td>2016</td>
<td>1,692</td>
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Number of Employees
Average Residential Bills

Water & Sewer – Major Texas Cities

<table>
<thead>
<tr>
<th>City</th>
<th>Average Bill</th>
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</thead>
<tbody>
<tr>
<td>Dallas</td>
<td>$61.76</td>
</tr>
<tr>
<td>SAWS</td>
<td>$65.69</td>
</tr>
<tr>
<td>Fort Worth</td>
<td>$71.51</td>
</tr>
<tr>
<td>Houston</td>
<td>$89.30</td>
</tr>
<tr>
<td>Austin</td>
<td>$112.47</td>
</tr>
</tbody>
</table>
Lowest Rate Growth of Major Texas Cities

6,000 Gallon Residential Water & Sewer Bill

- **SAWS** $3.95 Below Average
- **SAWS** $19.72 Below Average

**Austin**
- 2005: $- 
- 2007: $20
- 2009: $40
- 2011: $60
- 2013: $80
- 2015: $100
- Current: $120

**Houston**
- 2005: $- 
- 2007: $20
- 2009: $40
- 2011: $60
- 2013: $80
- 2015: $100
- Current: $120

**Dallas**
- 2005: $- 
- 2007: $20
- 2009: $40
- 2011: $60
- 2013: $80
- 2015: $100
- Current: $120

**SAWS**
- 2005: $- 
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