Mary Bailey
VP – Customer Experience & Strategic Initiatives

Board Meeting
August 6, 2019
WASTEWATER RATES
2018 Wastewater Sales by Customer Class

50.8 billion gallons billed in 2018

Wastewater Sales in Gallons

- Residential: 43.1%
- General: 5.1%
- Wholesale: 51.8%
Average Winter Consumption (AWC)

Residential Class Only

Water usage during 3 consecutive billing periods from November 15th to March 15th is averaged and billed for the next 12 months regardless of actual monthly water usage.
Residential Average Winter Consumption

Declined Almost 20% Since 2013 – More than 7% in 2019 Alone

Residential AWC

<table>
<thead>
<tr>
<th>Year</th>
<th>Residential AWC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>6,014</td>
</tr>
<tr>
<td>2014</td>
<td>5,896</td>
</tr>
<tr>
<td>2015</td>
<td>5,186</td>
</tr>
<tr>
<td>2016</td>
<td>5,567</td>
</tr>
<tr>
<td>2017</td>
<td>5,328</td>
</tr>
<tr>
<td>2018</td>
<td>5,188</td>
</tr>
<tr>
<td>2019</td>
<td>4,822</td>
</tr>
</tbody>
</table>

Declined Almost 20% Since 2013 – More than 7% in 2019 Alone
### Wastewater Rate Structure

**Water Meter Size** | **Residential & General Class** | **Wholesale**
--- | --- | ---
5/8” | $14.53 | n/a
3/4” | $15.97 | n/a
1” | $18.14 | n/a
1 1/2” | $25.41 | n/a
2” | $36.31 | n/a
3” | $72.61 | n/a
4” | $108.91 | n/a
6” | $181.52 | $340.07
8” | $290.41 | $340.07
10” | $435.65 | $340.07
12” | $580.86 | $340.07

**Volumetric Rate per 100 Gallons**

- **Residential**: $0.4657
- **General**: $0.4159
- **Wholesale**: $0.4438

**Usage in Gallons**

- **Block 1**: $0.3104
- **Block 2**: $0.0000
- **Block 3**: $0.0000

---

2019 Cost of Service and Rate Design Study
## Basis for Wastewater Charges

### Largest Texas Cities

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial/General</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Antonio</td>
<td>3 month winter average</td>
<td>100% of water usage, no sewer charges on separate or assumed irrigation</td>
</tr>
<tr>
<td>Dallas</td>
<td>4 month winter average, lower of water usage or AWC</td>
<td>Based on water consumption unless sewer is metered, no separate irrigation meters</td>
</tr>
<tr>
<td>Houston</td>
<td>Based on 100% of water usage</td>
<td>Based on 100% of water usage, no sewer charge on separate irrigation meters</td>
</tr>
<tr>
<td>Austin</td>
<td>3 month winter average, lower of water usage or AWC</td>
<td>3 month winter average, lower of water or AWC, no separate irrigation meters</td>
</tr>
</tbody>
</table>
Bill Comparison

Largest Texas Cities

Average Residential Sewer Bill - ICL
(assumes AWC of 4,822 gallons)

- San Antonio: $27.75
- Dallas: $30.63
- Houston: $34.96
- Austin: $48.77

Example Commercial Sewer Bill – ICL
(assumes 2" meter and 60,000 gallons)

- San Antonio: $279.69
- Dallas: $275.10
- Houston: $398.64
- Austin: $556.30
Wastewater Issues To Be Evaluated in Rate Study

• Average Winter Consumption
  – Should monthly usage be the lesser of AWC or actual water use?
• ICL/OCL differentials
• Fixed vs Variable revenue
  – What percent of revenue requirements should be recovered from service availability charge vs volumetric rates?
• Affordability
  – Is the bill affordable for the average residential customer?
  – Are the discounts provided to economically disadvantaged customers appropriate?
RATE ADVISORY COMMITTEE
Rate Advisory Committee (RAC)

15-20 Members

- Eligibility - any resident, property owner, Business Association, or business operator served by SAWS
- SAWS has requested nominations from each City Council member, neighborhood associations, chambers of commerce and business associations
- SAWS staff will ensure representation from all facets of SAWS customer base (e.g. Outside City Limits, Multi-family, Commercial, Recycle, Affordability)
- Proposed membership will be presented to Board at September Board Meeting for approval
Rate Study Process

**Pricing:** How should the revenue be collected from the customer classes?

**Cost Allocation:** Who should pay and how much should each customer class pay?

**Financial Planning:** What are the annual revenue requirements of the utility?

---

**Objectives, Policies & Rate Setting Principles**

**Rate Design**

**Cost of Service**

**Revenue Requirements Forecast**

**Operating & Capital Costs**

**Rate Revenues & Miscellaneous Revenues**
## Rate Study Objectives/Priorities

### What do we want to achieve?

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>CRITERIA</th>
<th>POSSIBLE RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordability</td>
<td>• Is bill affordable for economically disadvantaged customer?</td>
<td>• Discounts or separate rate structures depending on income</td>
</tr>
<tr>
<td></td>
<td>• Is cost of essential service necessary for basic health and safety affordable for all customers?</td>
<td>• Allocation of least expensive water supplies to basic/essential usage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lifeline rates</td>
</tr>
<tr>
<td>Conservation</td>
<td>• Do pricing structures encourage permanent reductions in water usage through more efficient use of water?</td>
<td>• Emphasis on variable rate components</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increasing tiered rates</td>
</tr>
<tr>
<td>Cost of Service</td>
<td>• Are costs recovered from customers and customer classes in proportion to the cost of providing service?</td>
<td>• Different rates by class</td>
</tr>
<tr>
<td></td>
<td>• Are allocation of costs fair and defensible?</td>
<td>• Tiered rate structures</td>
</tr>
</tbody>
</table>
# Rate Study Objectives

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>CRITERIA</th>
<th>POSSIBLE RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Impact</td>
<td>• Do we want to avoid large changes in customers’ bills?</td>
<td>• Limited or phased rate structure changes</td>
</tr>
</tbody>
</table>
| Drought Management               | • Should price signals be sent to encourage demand reductions during drought stages? | • Emphasis on variable rate components  
|                                  |                                                                            | • Increasing tiered rates with adjustments or surcharge at certain drought stages |
| Financial Sufficiency/Stability  | • Do rates recover the full cost of operations and provide for capital projects?  
|                                  | • Do we want to limit the negative impact of weather/usage restrictions on revenue? | • Modify ratio of fixed vs variable charges                                       |
| Simplicity                       | • Should rate structure be simple for customers to understand?            | • Less complex rate structure  
|                                  |                                                                            | • Emphasis on fixed rate components                                               |
Next Steps

• Board appointment of RAC membership and Chairperson – Sep 2019
• RAC Meetings – Sept 2019 – May 2020
• Monthly Board briefings
  – Provide education, solicit Board feedback and highlight concerns, findings and recommendations
2019 Cost of Service and Rate Design Study

Mary Bailey
VP – Customer Experience & Strategic Initiatives

Board Meeting
August 6, 2019
Total Wastewater Billed

Water and Wastewater Volumetric Sales are Basically Flat During Last 6 Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Wholesale</th>
<th>General</th>
<th>Residential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gallons in Billions

- 2013-2018
- General: Flat from 2013 to 2018
- Residential: Flat from 2013 to 2018

Water and wastewater volumetric sales are basically flat during the last 6 years.
### SAWS Meter Sizes and Average Usage by Size

94% of SAWS Meters are 5/8” or ¾” Which Combined Account for Slightly More than Half of All Usage

<table>
<thead>
<tr>
<th>Meter Size</th>
<th># Bills</th>
<th>Usage in Gallons</th>
<th>% of Total Bills</th>
<th>% of Total Usage</th>
<th>Avg. Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8&quot;</td>
<td>451,641</td>
<td>2,393,108,637</td>
<td>87.326%</td>
<td>48.6%</td>
<td>5,299</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>34,651</td>
<td>259,791,637</td>
<td>6.700%</td>
<td>5.3%</td>
<td>7,497</td>
</tr>
<tr>
<td>1&quot;</td>
<td>14,308</td>
<td>172,945,094</td>
<td>2.767%</td>
<td>3.5%</td>
<td>12,087</td>
</tr>
<tr>
<td>1 1/2&quot;</td>
<td>7,871</td>
<td>261,272,412</td>
<td>1.522%</td>
<td>5.3%</td>
<td>33,194</td>
</tr>
<tr>
<td>2&quot;</td>
<td>5,644</td>
<td>606,279,438</td>
<td>1.091%</td>
<td>12.3%</td>
<td>107,420</td>
</tr>
<tr>
<td>3&quot;</td>
<td>1,730</td>
<td>263,514,898</td>
<td>0.335%</td>
<td>5.4%</td>
<td>152,321</td>
</tr>
<tr>
<td>4&quot;</td>
<td>795</td>
<td>382,392,907</td>
<td>0.154%</td>
<td>7.8%</td>
<td>480,997</td>
</tr>
<tr>
<td>6&quot;</td>
<td>407</td>
<td>364,136,371</td>
<td>0.079%</td>
<td>7.4%</td>
<td>894,684</td>
</tr>
<tr>
<td>8&quot;</td>
<td>115</td>
<td>129,375,605</td>
<td>0.022%</td>
<td>2.6%</td>
<td>1,125,005</td>
</tr>
<tr>
<td>10&quot;</td>
<td>25</td>
<td>91,530,782</td>
<td>0.005%</td>
<td>1.9%</td>
<td>3,661,231</td>
</tr>
<tr>
<td>TOTAL</td>
<td>517,187</td>
<td>4,924,347,781</td>
<td>100.000%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>
2018 Water Sales by Customer Class – Current Cost Allocation

Water Usage is Fairly Constant With Dollar Sales by Customer Class

Water Sales in Gallons

- Residential: 55.5%
- General: 38.5%
- Irrigation: 5.5%
- Wholesale: 0.5%

Water Sales in Dollars

- Residential: 56.4%
- General: 33.8%
- Irrigation: 9.4%
- Wholesale: 0.4%
Monthly Average Metered Water Usage

Residential Use Per Bill Has Declined 13% Since 2013 – Total Use Per Bill Almost 8%

Residential AWC

<table>
<thead>
<tr>
<th>Year</th>
<th>Residential AWC</th>
<th>All Classes Monthly Average Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>7,146</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>7,928</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>6,617</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>6,441</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>6,550</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>6,216</td>
<td></td>
</tr>
</tbody>
</table>
2018 Residential Customer Bill Distribution by Rate Block

66% of All Residential Bills in 2018 Were for Less Than 6,000 Gallons
Texas Residential Water Rate Structure Comparison

SAWS Rate Structure Has Highest Fixed Charge but Relatively Low Volumetric Rates for Low Usage

Texas’ 4 Largest Cities Residential Water Rates 0 – 6,000 Gallons

- Austin
- Dallas
- Houston
- San Antonio

SAWS Rate Structure Has Highest Fixed Charge but Relatively Low Volumetric Rates for Low Usage
Customer Connections

Steady Growth of Slightly More than 1.5% Per Year for Last 5 Years – 8% Since 2013

Average Water Connections
Average Wastewater Connections
Water Rate Structure Challenges/Opportunities

• Evaluation of Affordability
  – Discounts vs. separate rate structure
  – Specific funding for affordability programs

• Complexity of SAWS Existing Water Rate Structure
  – Eight residential tiers is more than most other utilities
  – Base/excess commercial class tiers vs. flat volumetric rate

• Proportion of Bill Recovered through Fixed Charges

• Use of Peak and Non-Peak Volumetric Rates

• Potential Break-Out of Multi-Family Units as Separate Rate Class
Texas Residential Irrigation Rate Structure Comparison

Only SA & Houston Have Separate Rate Structures for Irrigation Meters

Texas’ 4 Largest Cities Residential Irrigation Water Rates 0 – 50,000 Gallons Per Month

* Assumes 1” Meter
Texas Residential Irrigation Rate Structure Comparison

Only SA & Houston Have Separate Rate Structures for Irrigation Meters

Texas’ 4 Largest Cities Residential Irrigation Water Rates 50,000 – 250,000 Gallons Per Month

* Assumes 1” Meter for 50,000 Gallons a Month Usage, 2” Meter for 75,000 – 150,000 Gallons a Month, and 3” Meter for 175,000 – 250,000 Gallons Per Month
Monthly Lifeline Supply Cost Over Time

Residential Lifeline Supply of Water (2,992 Gallons) Has Increased Less than $3 Since 2005

Chart Title


$12.68 $15.96 $25.14

$15.58

Residential-2,992 General 2992
Monthly Average Metered Water Usage

Residential Use Per Bill Has Declined 28% Since 2005 – Total Use Per Bill 26%

![Bar Chart]

- Gallons Per Month
- Residential Monthly Average Usage
- All Classes Monthly Average Usage
Residential Average Winter Consumption

Declined 22% Since 2005 – More than 7% in 2019 Alone
SAWS Average Residential Water Bill 2013 - 2018

From 2013 to 2018 Monthly Average Residential Water Usage Has Declined 13% - Cost Has Increased 26%
SAWS Average Residential Water Bill 2005 - 2018

From 2005 to 2018 Monthly Average Residential Water Usage Has Declined 28% - Cost Has Increased 11%
SAWS Average General Class Water Bill 2013 - 2018

From 2013 to 2018 Monthly Average General Class Usage Has Increased 5% - Cost Has Increased 35%
SAWS Average General Class Water Bill 2005 - 2018

From 2005 to 2018 Monthly Average General Class Usage Has Declined 3% - Cost Has Increased 58%
SAWS Average Irrigation Class Water Bill 2013 - 2018

From 2013 to 2018 Monthly Average Irrigation Class Usage Has Declined 12% - Cost Increased 30%
SAWS Average Irrigation Class Water Bill 2005 - 2018

From 2005 to 2018 Monthly Average Irrigation Class Usage Has Declined 45% - Cost Increased 24%
## Wastewater Proposed Rate Structure

<table>
<thead>
<tr>
<th>Line No.</th>
<th>Description</th>
<th>Existing Residential &amp; General</th>
<th>Proposed FY 15 Residential</th>
<th>Proposed FY 15 General</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5/8&quot;</td>
<td>$12.69</td>
<td>$11.67</td>
<td>$11.67</td>
</tr>
<tr>
<td>2</td>
<td>3/4&quot;</td>
<td>$12.69</td>
<td>$12.84</td>
<td>$12.84</td>
</tr>
<tr>
<td>3</td>
<td>1&quot;</td>
<td>$12.69</td>
<td>$14.59</td>
<td>$14.59</td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot;</td>
<td>$12.69</td>
<td>$20.43</td>
<td>$20.43</td>
</tr>
<tr>
<td>5</td>
<td>2&quot;</td>
<td>$12.69</td>
<td>$29.18</td>
<td>$29.18</td>
</tr>
<tr>
<td>6</td>
<td>3&quot;</td>
<td>$12.69</td>
<td>$58.36</td>
<td>$58.36</td>
</tr>
<tr>
<td>7</td>
<td>4&quot;</td>
<td>$12.69</td>
<td>$87.54</td>
<td>$87.54</td>
</tr>
<tr>
<td>8</td>
<td>6&quot;</td>
<td>$12.69</td>
<td>$145.90</td>
<td>$145.90</td>
</tr>
<tr>
<td>9</td>
<td>8&quot;</td>
<td>$12.69</td>
<td>$233.43</td>
<td>$233.43</td>
</tr>
<tr>
<td>10</td>
<td>10&quot;</td>
<td>$12.69</td>
<td>$350.15</td>
<td>$350.15</td>
</tr>
<tr>
<td>11</td>
<td>12&quot;</td>
<td>$12.69</td>
<td>$466.87</td>
<td>$466.87</td>
</tr>
<tr>
<td></td>
<td><strong>Wastewater Volumetric Rate</strong></td>
<td><strong>(per 100 gal)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Block 1**</td>
<td>$0.3365</td>
<td>$0.2495</td>
<td>$0.3343</td>
</tr>
<tr>
<td>13</td>
<td>Block 2</td>
<td></td>
<td></td>
<td>$0.3743</td>
</tr>
</tbody>
</table>

* Service availability charge includes a minimum allowance of 1,496 gallons.

** The proposed residential volumetric rates consist of two blocks with Block 1 ending at 2,992 gallons.
Challenges – Issues
2005 Water Sales by Customer Class

Volumetric Sales Percentages by Class Roughly Equate to Dollar Sales Percentages

Water Sales in Gallons

- Residential: 35.9%
- General: 56.2%
- Irrigation: 7.6%
- Wholesale: 43.5%

Water Sales in Dollars

- Residential: 33.0%
- General: 57.3%
- Irrigation: 9.5%
- Wholesale: 42.5%

Legend:
- Residential
- General
- Irrigation
- Wholesale
2013 & 2018 Water Usage by Customer Class

Cost for Irrigation Water Has Increased – Other Percentages Relatively Constant

2013 Water Sales in Gallons
- Residential: 41.2%
- General: 58.6%
- Irrigation: 5.2%
- Wholesale: 0.2%

2018 Water Sales in Gallons
- Residential: 43.2%
- General: 55.5%
- Irrigation: 38.5%
- Wholesale: 0.5%
Texas Pricing Comparisons Over Time

Circle of Blue – Price of Water 2018 – Residential 6,000 Gallons

Chart Title


- $37.46
- $34.46
- $30.76
- $21.69

Dallas  San Antonio  Fort Worth  Houston  Austin
Texas Pricing Comparisons Over Time

Circle of Blue – Price of Water 2018 – Residential 9,000 Gallons

Chart Title

- Dallas
- San Antonio
- Fort Worth
- Houston
- Austin


$51.45 $54.52 $66.38 $119.61

$20.00 $40.00 $60.00 $80.00 $100.00 $120.00 $140.00

$119.61 $66.38 $54.52

$-
Texas Pricing Comparisons Over Time

Circle of Blue – Price of Water 2018 – Residential 12,000 Gallons

Chart Title
MLGW 2018 Utility Bill Comparisons*
SAWS ~ 5% Less Than Average

<table>
<thead>
<tr>
<th>City</th>
<th>Water</th>
<th>Wastewater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin</td>
<td>$26.51</td>
<td>$12.41</td>
</tr>
<tr>
<td>Chicago</td>
<td>$14.51</td>
<td>$10.00</td>
</tr>
<tr>
<td>Dallas</td>
<td>$26.30</td>
<td>$10.00</td>
</tr>
<tr>
<td>Houston</td>
<td>$23.99</td>
<td>$9.48</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$23.65</td>
<td>$9.48</td>
</tr>
<tr>
<td>New York</td>
<td>$30.29</td>
<td>$3.75</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>$28.15</td>
<td>$5.00</td>
</tr>
<tr>
<td>Phoenix</td>
<td>$14.01</td>
<td>$7.00</td>
</tr>
<tr>
<td>San Antonio</td>
<td>$21.04</td>
<td>$10.00</td>
</tr>
</tbody>
</table>

Residential – 5 CCF (3,741 Gallons) Water & Wastewater
MLGW 2018 Utility Bill Comparisons*

SAWS ~ 13% Less than Average

Residential – 10 CCF (7,481 Gallons) Water & Wastewater

- Austin: $77.62 (Water: $57.00, Wastewater: $20.62)
- Chicago: $77.02 (Water: $29.02, Wastewater: $48.00)
- Dallas: $77.03 (Water: $26.03, Wastewater: $51.00)
- Houston: $47.31 (Water: $38.69, Wastewater: $8.62)
- Los Angeles: $82.03 (Water: $49.38, Wastewater: $32.65)
- New York: $60.58 (Water: $38.10, Wastewater: $22.48)
- Philadelphia: $54.87 (Water: $49.69, Wastewater: $5.18)
- Phoenix: $57.01 (Water: $17.26, Wastewater: $39.75)
- San Antonio: $37.17 (Water: $38.30, Wastewater: -$1.13)
MLGW 2018 Utility Bill Comparisons*

SAWS ~ 15% Less than Average

Residential – 15 CCF (11,222 Gallons) Water & Wastewater

- Austin: $250.00
- Chicago: $100.00
- Dallas: $150.00
- Houston: $200.00
- Los Angeles: $250.00
- New York: $200.00
- Philadelphia: $150.00
- Phoenix: $50.00
- San Antonio: $200.00

Water ~ 50% of Bill
Wastewater ~ 50% of Bill
MLGW 2018 Utility Bill Comparisons

SAWS ~ 23% Less Than Average

Commercial – 100 CCF Water & Wastewater

<table>
<thead>
<tr>
<th>City</th>
<th>Water</th>
<th>Wastewater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin</td>
<td>$600</td>
<td>$700</td>
</tr>
<tr>
<td>Chicago</td>
<td>$400</td>
<td>$200</td>
</tr>
<tr>
<td>Dallas</td>
<td>$500</td>
<td>$400</td>
</tr>
<tr>
<td>Houston</td>
<td>$600</td>
<td>$300</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$800</td>
<td>$500</td>
</tr>
<tr>
<td>New York</td>
<td>$600</td>
<td>$300</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>$400</td>
<td>$400</td>
</tr>
<tr>
<td>Phoenix</td>
<td>$600</td>
<td>$400</td>
</tr>
<tr>
<td>San Antonio</td>
<td>$500</td>
<td>$500</td>
</tr>
</tbody>
</table>
MLGW 2018 Utility Bill Comparisons

SAWS ~ 26% Less Than Average

Commercial – 500 CCF Water & Wastewater

<table>
<thead>
<tr>
<th>City</th>
<th>Water</th>
<th>Wastewater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin</td>
<td>$4,000.00</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>Chicago</td>
<td>$3,000.00</td>
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<td>Dallas</td>
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<td>Houston</td>
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<td>Los Angeles</td>
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<td>$1,000.00</td>
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<td>New York</td>
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<td>Phoenix</td>
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<tr>
<td>San Antonio</td>
<td>$2,000.00</td>
<td>$1,000.00</td>
</tr>
</tbody>
</table>
MLGW 2018 Utility Bill Comparisons

SAWS ~ 17% Less Than Average

Industrial – 7,500 CCF Water & Wastewater

- Chicago
- Dallas
- Houston
- Los Angeles
- New York
- Philadelphia
- Phoenix
- San Antonio

Water  Wastewater

$-  $10,000.00  $20,000.00  $30,000.00  $40,000.00  $50,000.00  $60,000.00  $70,000.00  $80,000.00
Cost of Service

Potable Water Usage vs Allocated Cost

Usage

Cost of Service
SAWS Average Residential Water Bill 2012 - 2018

Due to Declining Usage and Rate Structure Changes SAWS Average Residential Water Bill Declined from 2009 - 2015
SAWS Average Residential Water Bill 2009 - 2018

SAWS Average Residential Water Bill Has Increased ~ 1.7% Per Year Over Last Decade
SAWS Average Residential Sewer Bill 2009 - 2016

Average Residential Sewer Bill Has Grown ~ 5% Per Year Since 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Monthly Bill in $</th>
<th>Monthly Usage in Gallons</th>
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</thead>
<tbody>
<tr>
<td>2009</td>
<td>$18.78</td>
<td>6,855</td>
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<td>2010</td>
<td>$18.27</td>
<td>5,642</td>
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<td>2011</td>
<td>$19.19</td>
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<td>2012</td>
<td>$20.64</td>
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<td>2013</td>
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<td>2014</td>
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<td>2015</td>
<td>$25.17</td>
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<td>2016</td>
<td>$26.43</td>
<td>5,567</td>
</tr>
</tbody>
</table>
Texas Residential Irrigation Rate Structure Comparison

Only SA & Houston Have Separate Rate Structures for Irrigation Meters

Texas’ 4 Largest Cities Residential Irrigation Water Rates 0 – 250,000 Gallons Per Month

- Austin
- Dallas
- Houston
- San Antonio

* Assumes 1” Meter for 0 – 50,000 Gallons a Month Usage, 2” Meter for 75,000 – 150,000 Gallons a Month, and 3” Meter for 175,000 – 250,000 Gallons Per Month