2019 Cost of Service and Rate Design Study

Mary Bailey
VP – Customer Experience & Strategic Initiatives

Board Meeting
August 6, 2019

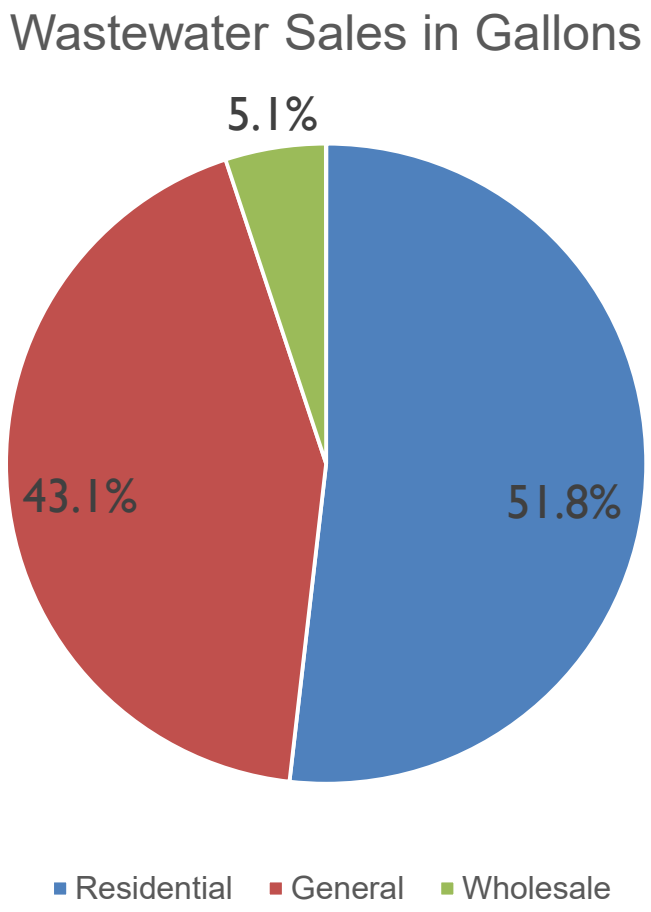
San Antonio Water System

MAKING SAN ANTONIO WATERFUL

WASTEWATER RATES

2018 Wastewater Sales by Customer Class

50.8 billion gallons billed in 2018



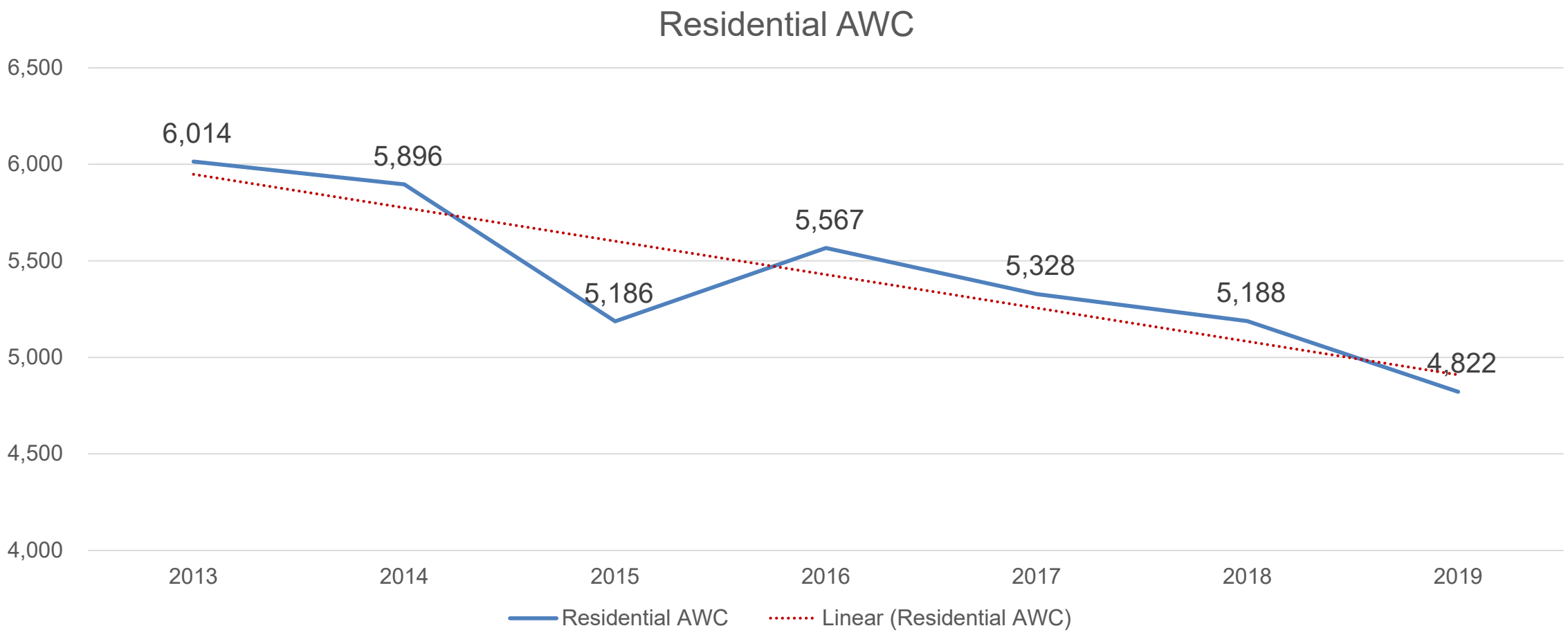
Average Winter Consumption (AWC)

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



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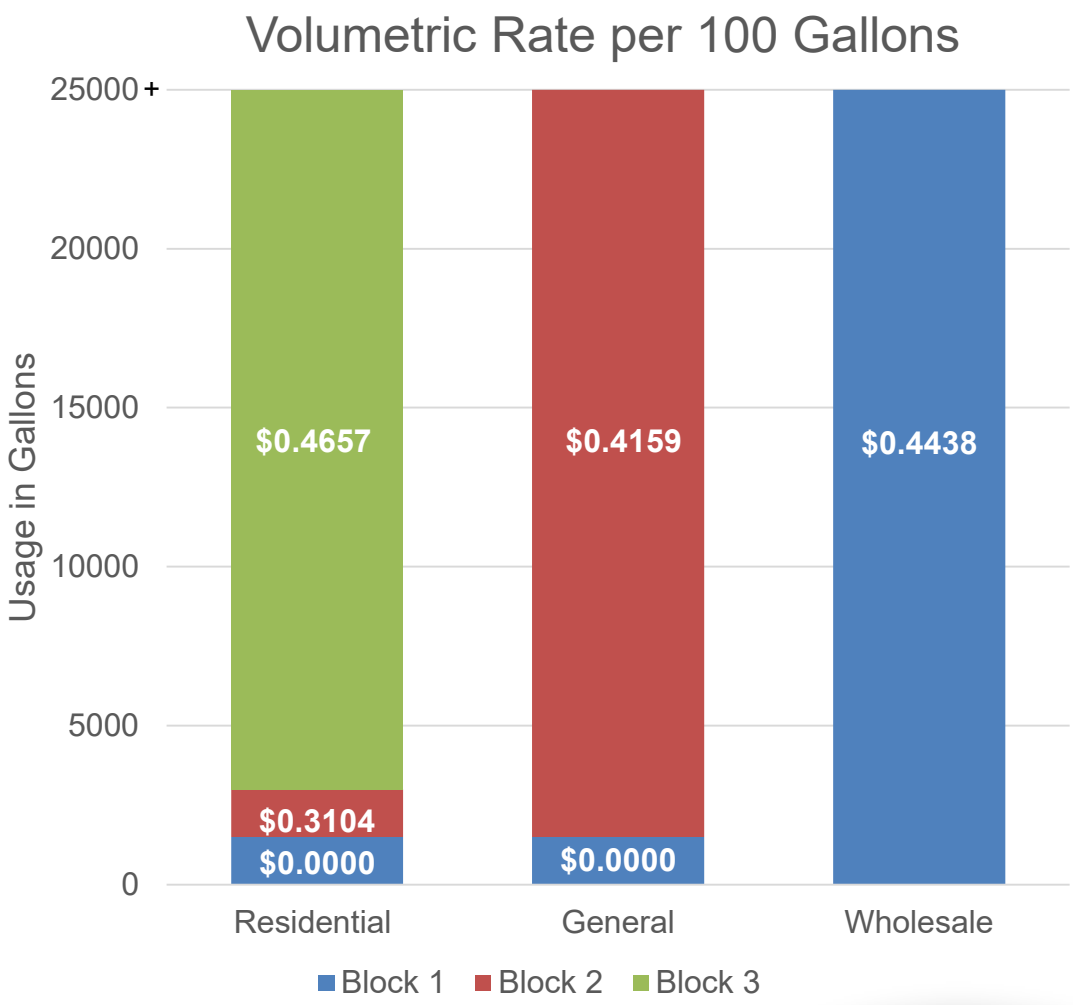
Wastewater Rate Structure

Service Availability Charge

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 ½”	$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



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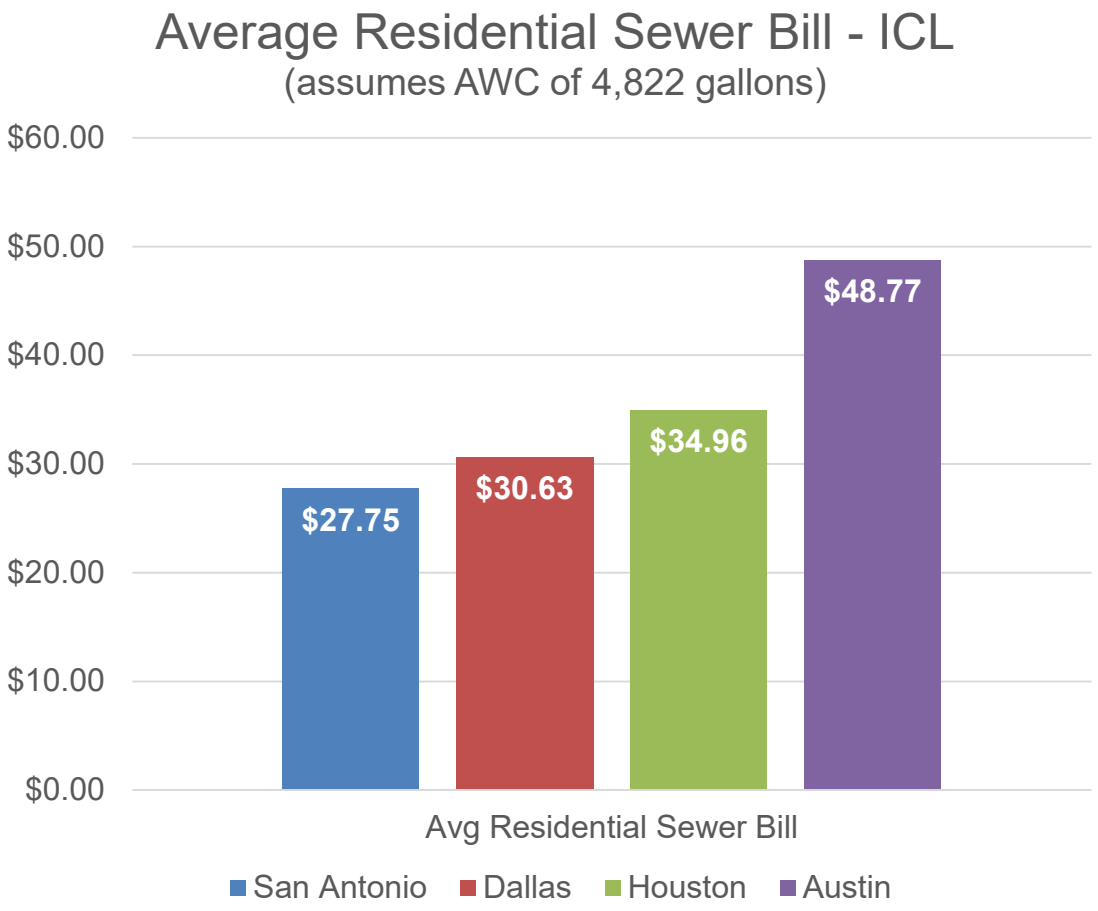
Basis for Wastewater Charges

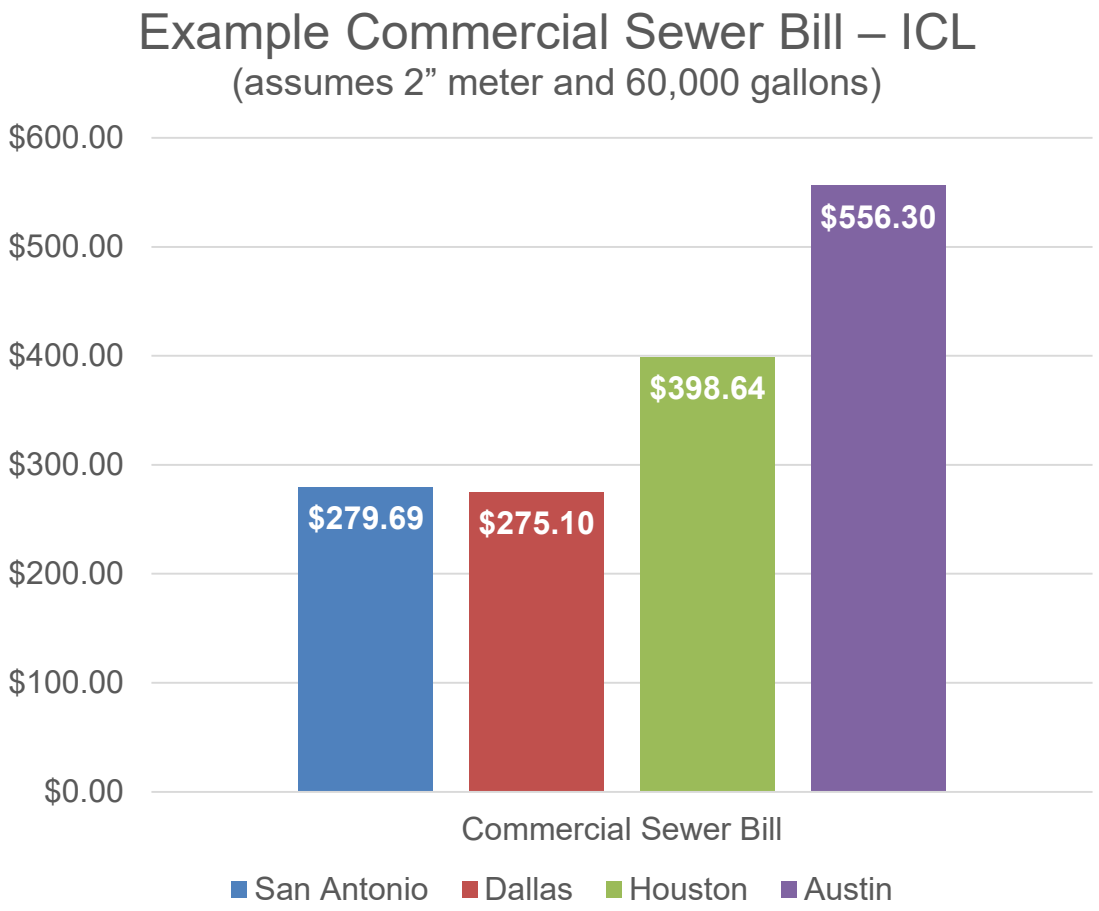
Largest Texas Cities

	Residential	Commercial/General
San Antonio	3 month winter average	100% of water usage, no sewer charges on separate or assumed irrigation
Dallas	4 month winter average, lower of water usage or AWC	Based on water consumption unless sewer is metered, no separate irrigation meters
Houston	Based on 100% of water usage	Based on 100% of water usage, no sewer charge on separate irrigation meters
Austin	3 month winter average, lower of water usage or AWC	3 month winter average, lower of water or AWC, no separate irrigation meters

Bill Comparison

Largest Texas Cities





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

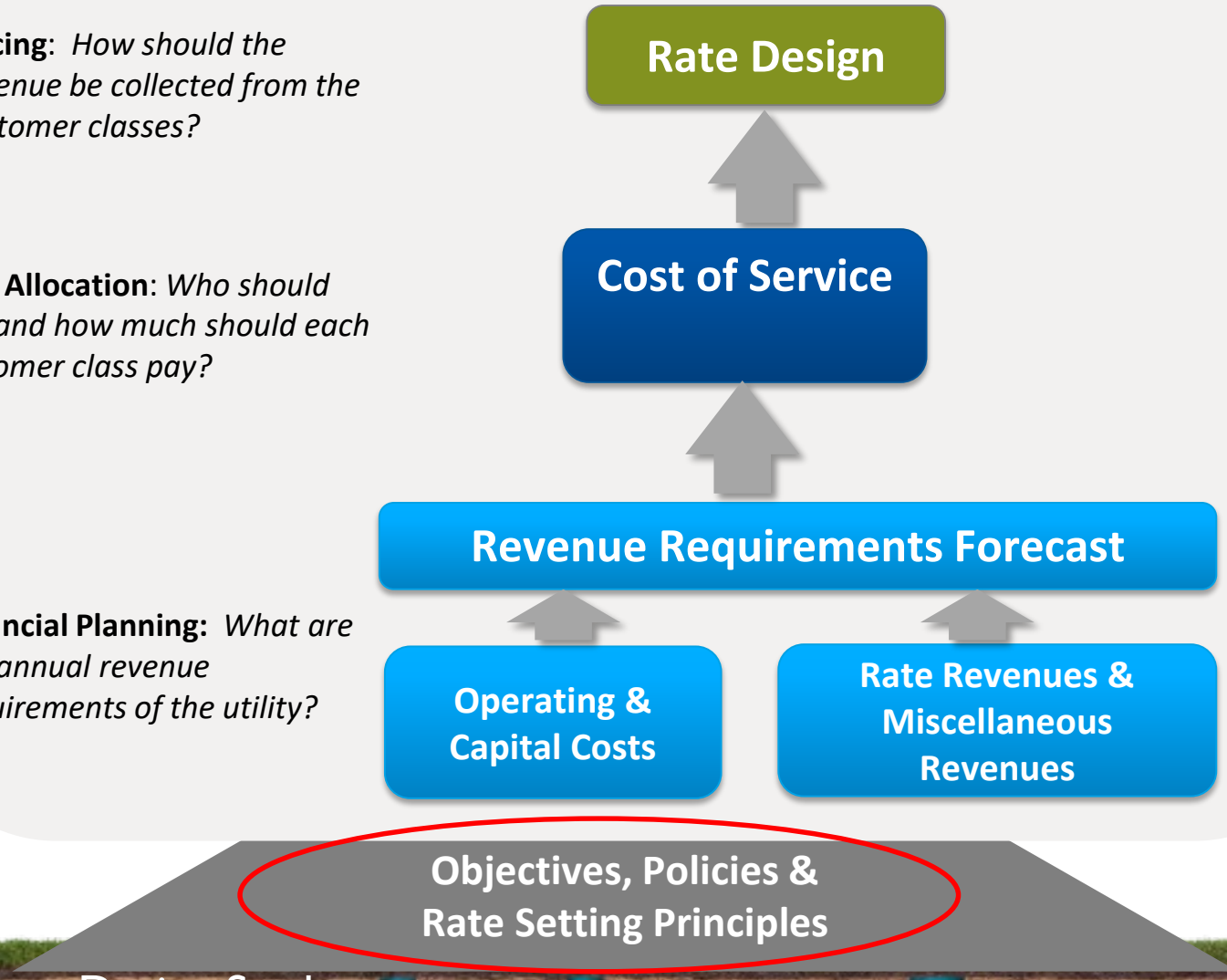
- Eligibility - any resident, property owner, Business Association, or business operator served by SAWS
- SAWS has requested nominations from each City Council member, neighborhood associations, chambers of commerce and business associations
- SAWS staff will ensure representation from all facets of 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?*



San Antonio Water System

Rate Study Objectives/Priorities

What do we want to achieve?

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

Rate Study Objectives

OBJECTIVE	CRITERIA	POSSIBLE RESULTS
Customer Impact	• Do we want to avoid large changes in customers' bills?	• Limited or phased rate structure changes
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

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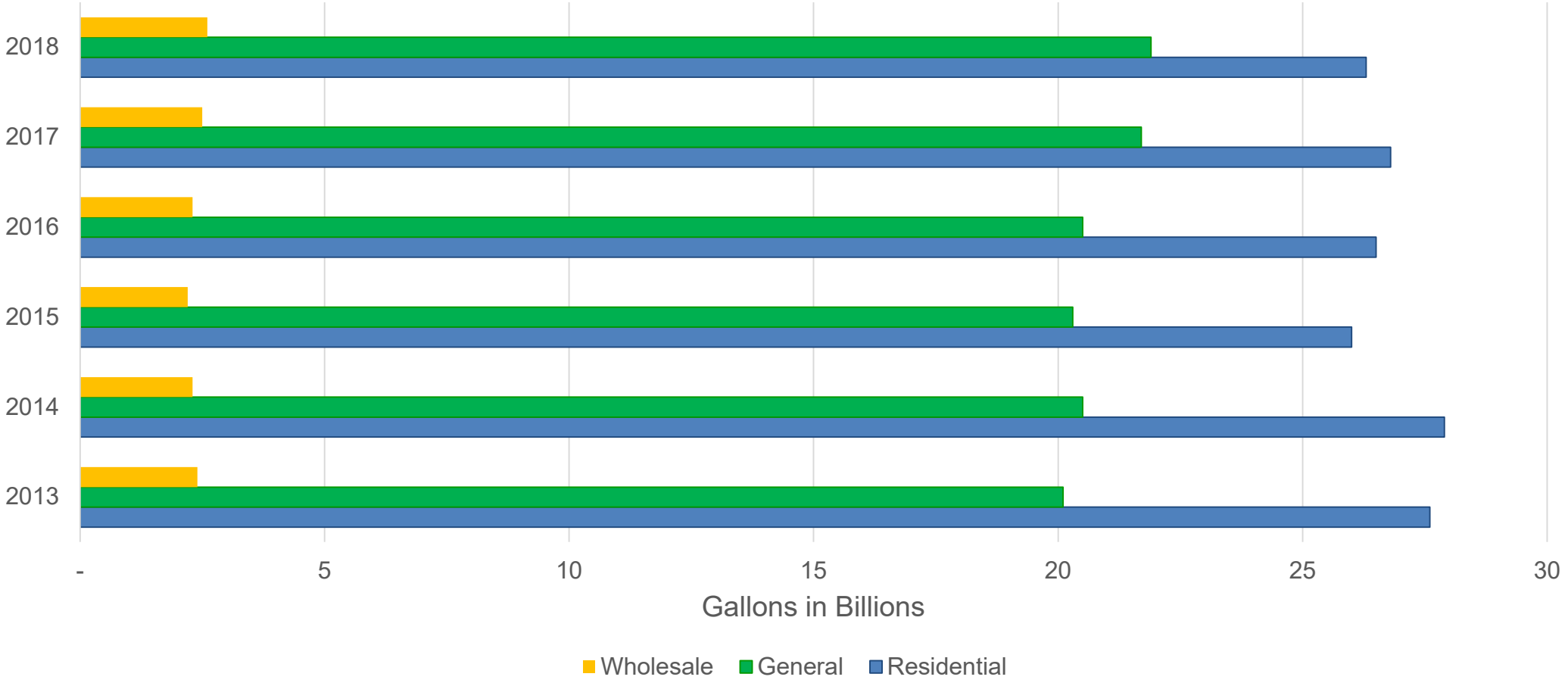
Total Wastewater Billed

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



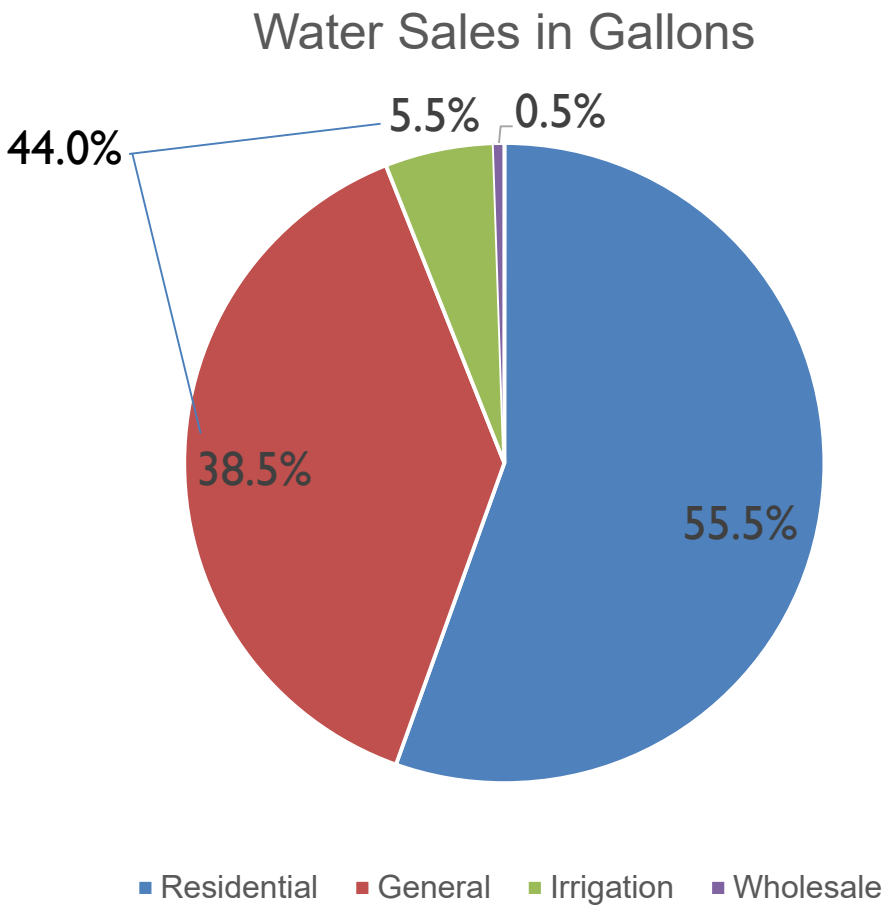
SAWS Meter Sizes and Average Usage by Size

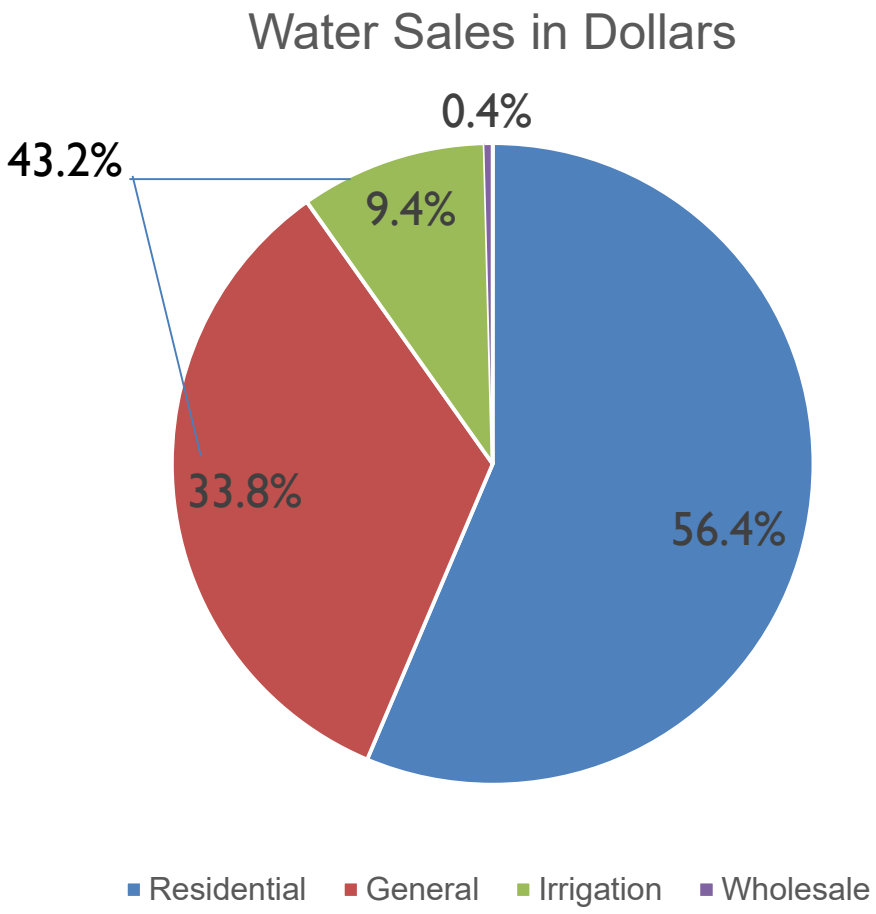
94% of SAWS Meters are 5/8" or ¾" Which Combined Account for Slightly More than Half of All Usage

Meter Size	April 2019				
	# Bills	Usage in Gallons	% of Total Bills	% of Total Usage	Avg. Usage
5/8"	451,641	2,393,108,637	87.326%	48.6%	5,299
3/4"	34,651	259,791,637	6.700%	5.3%	7,497
1"	14,308	172,945,094	2.767%	3.5%	12,087
1 1/2"	7,871	261,272,412	1.522%	5.3%	33,194
2"	5,644	606,279,438	1.091%	12.3%	107,420
3"	1,730	263,514,898	0.335%	5.4%	152,321
4"	795	382,392,907	0.154%	7.8%	480,997
6"	407	364,136,371	0.079%	7.4%	894,684
8"	115	129,375,605	0.022%	2.6%	1,125,005
10"	25	91,530,782	0.005%	1.9%	3,661,231
TOTAL	517,187	4,924,347,781	100.000%	100.0%	

2018 Water Sales by Customer Class – Current Cost Allocation

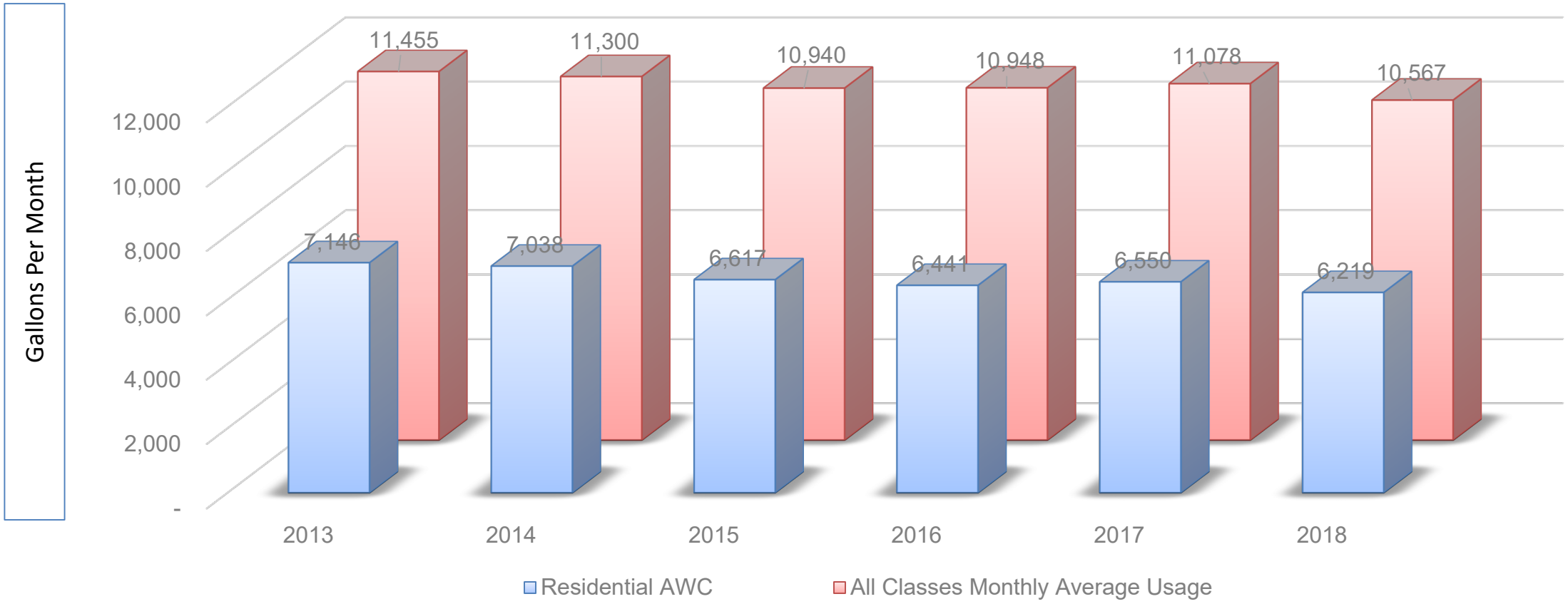
Water Usage is Fairly Constant With Dollar Sales by Customer Class





Monthly Average Metered Water Usage

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



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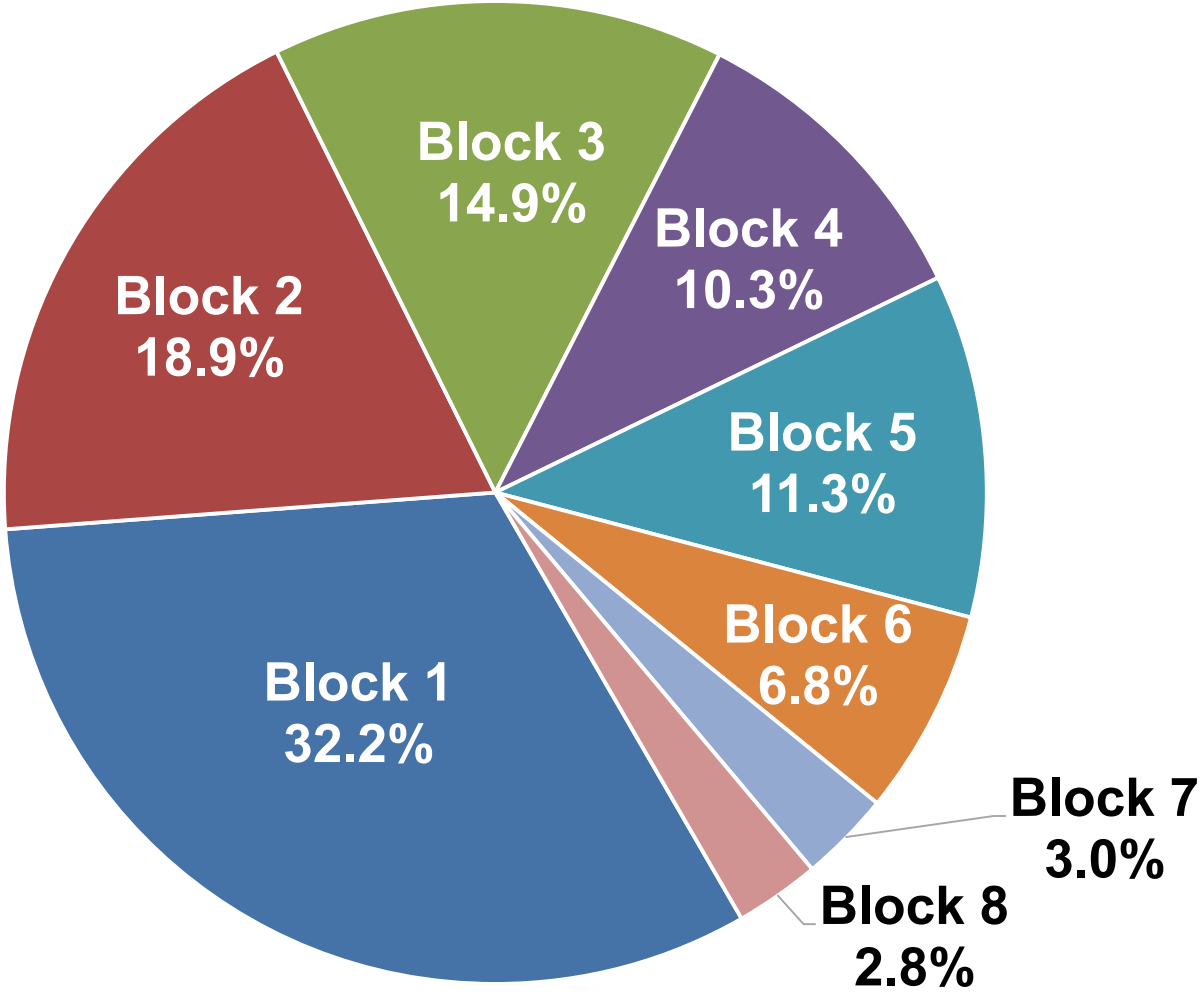
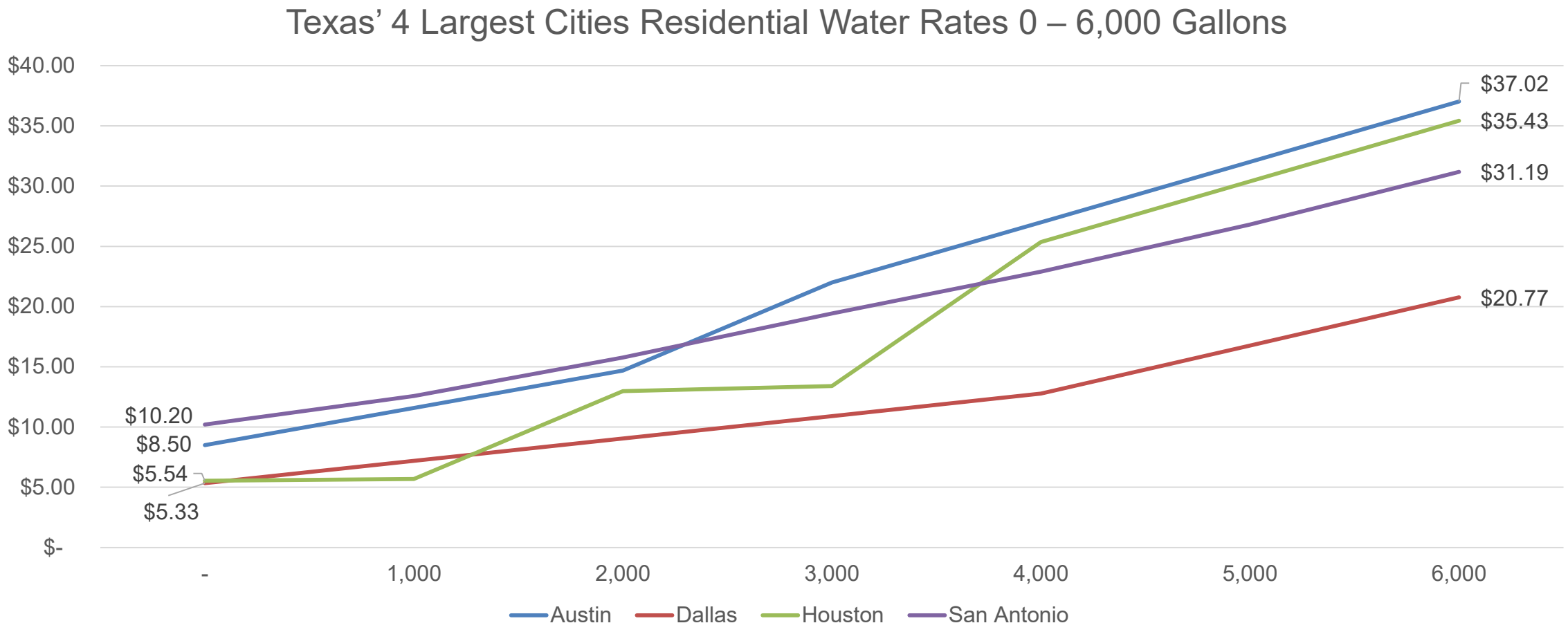
2018 Residential Customer Bill Distribution by Rate Block

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



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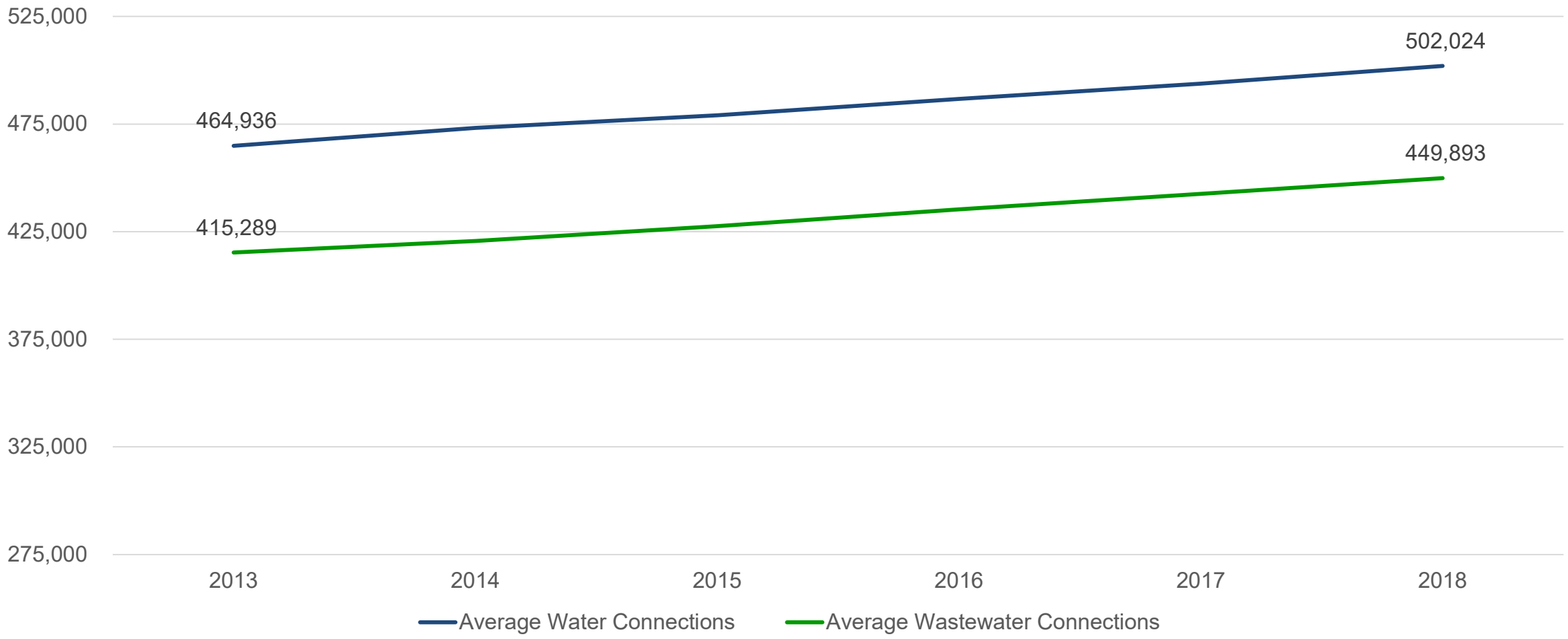
Customer Connections

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



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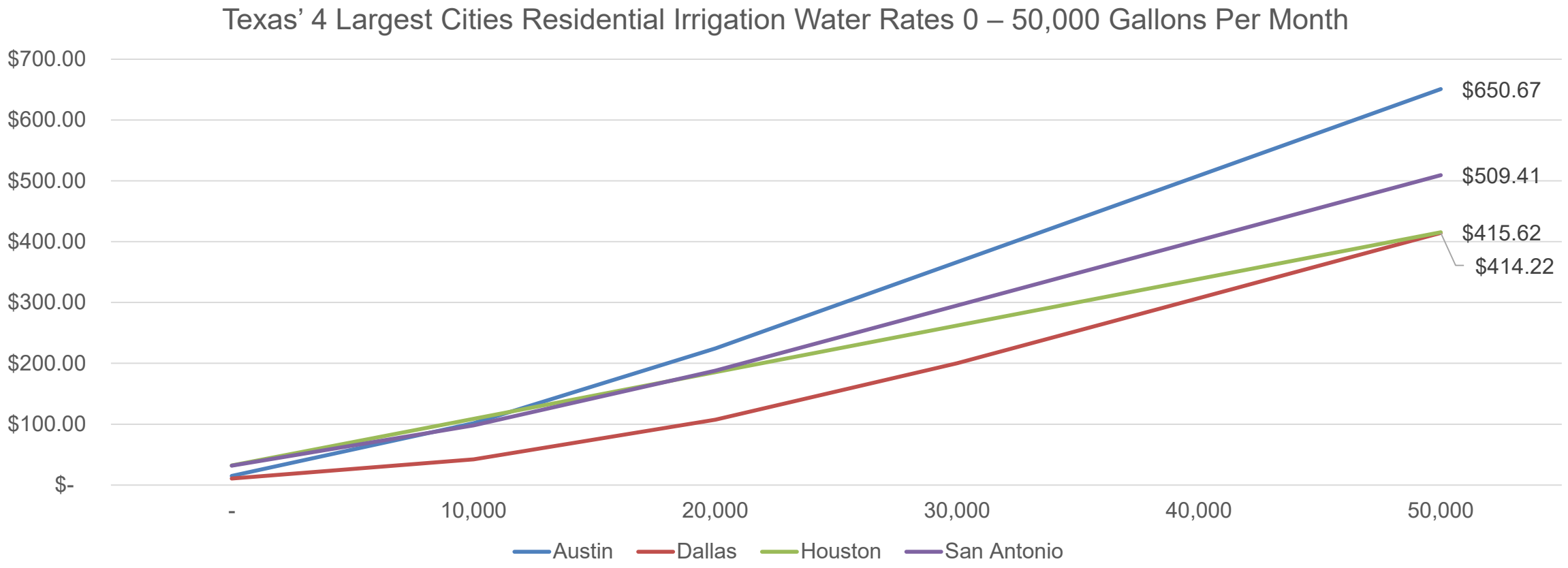
Water Rate Structure Challenges/Opportunities

- 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



* Assumes 1" Meter

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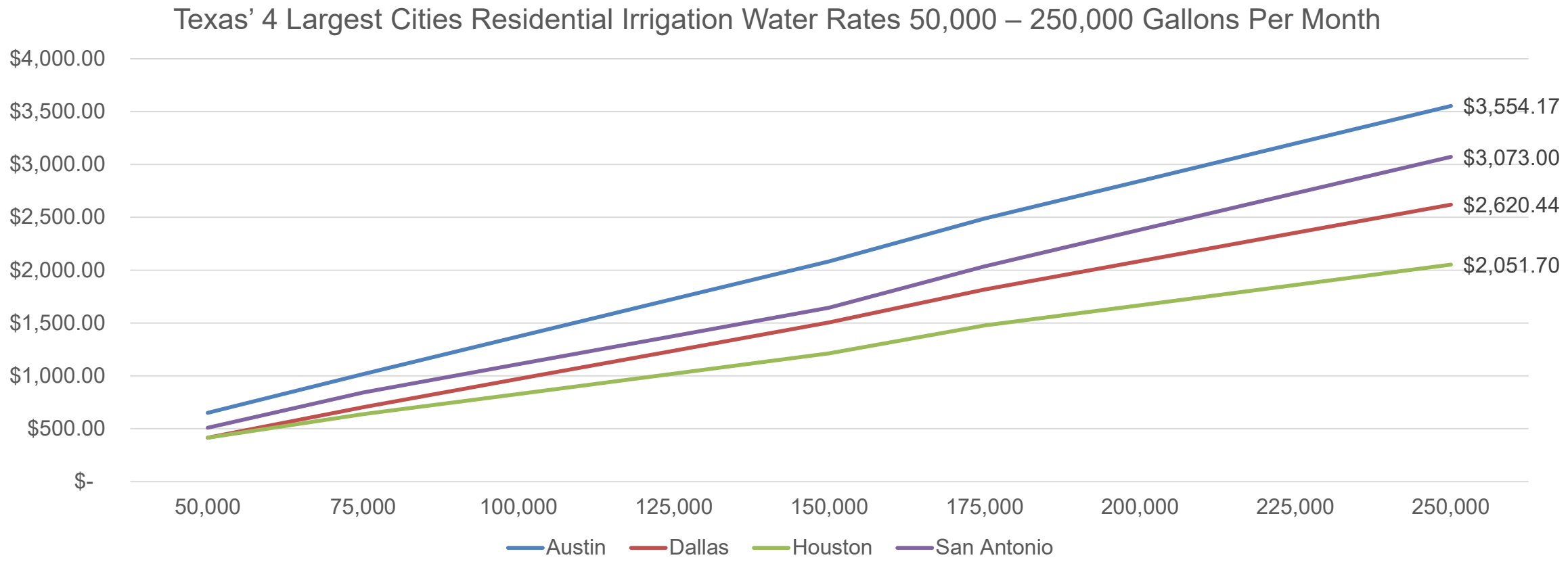
Texas Residential Irrigation Rate Structure Comparison

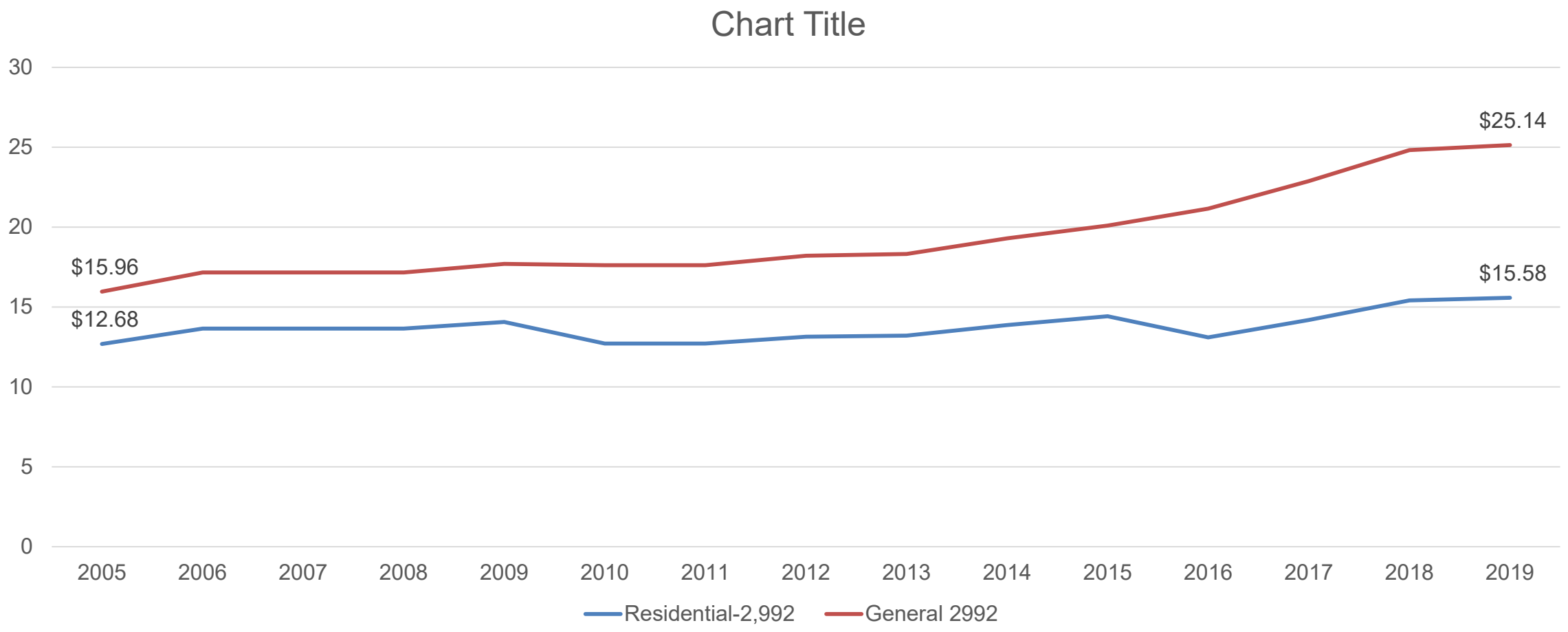
Only SA & Houston Have Separate Rate Structures for Irrigation Meters



* 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



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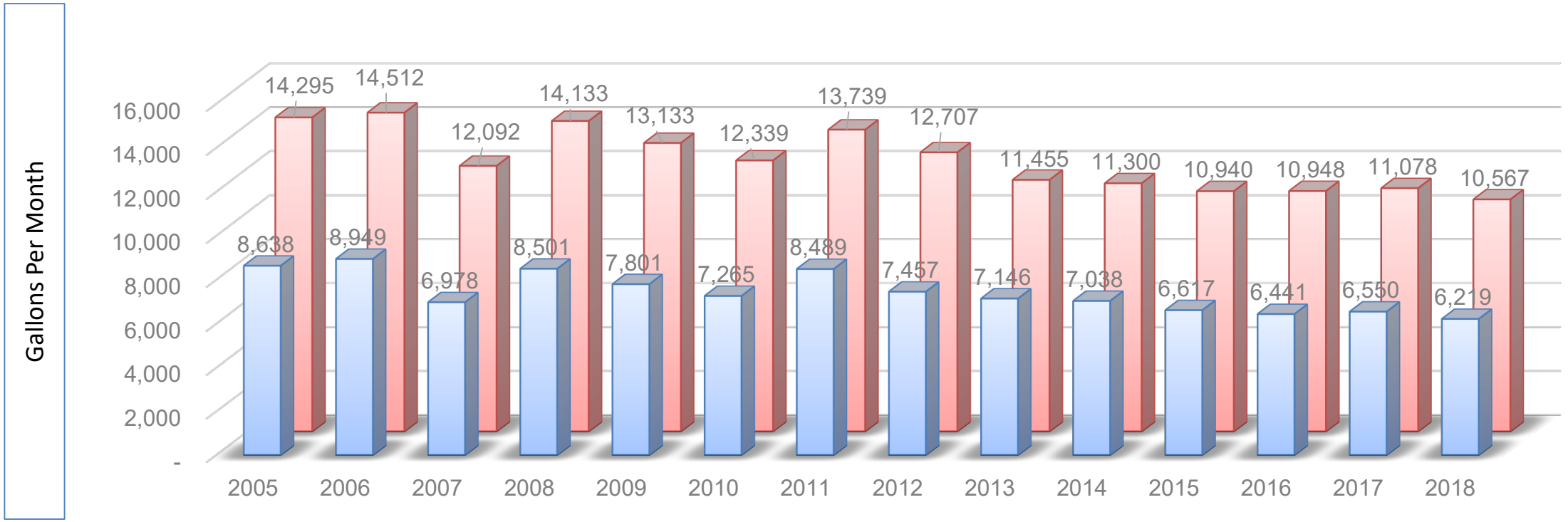
Monthly Average Metered Water Usage

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



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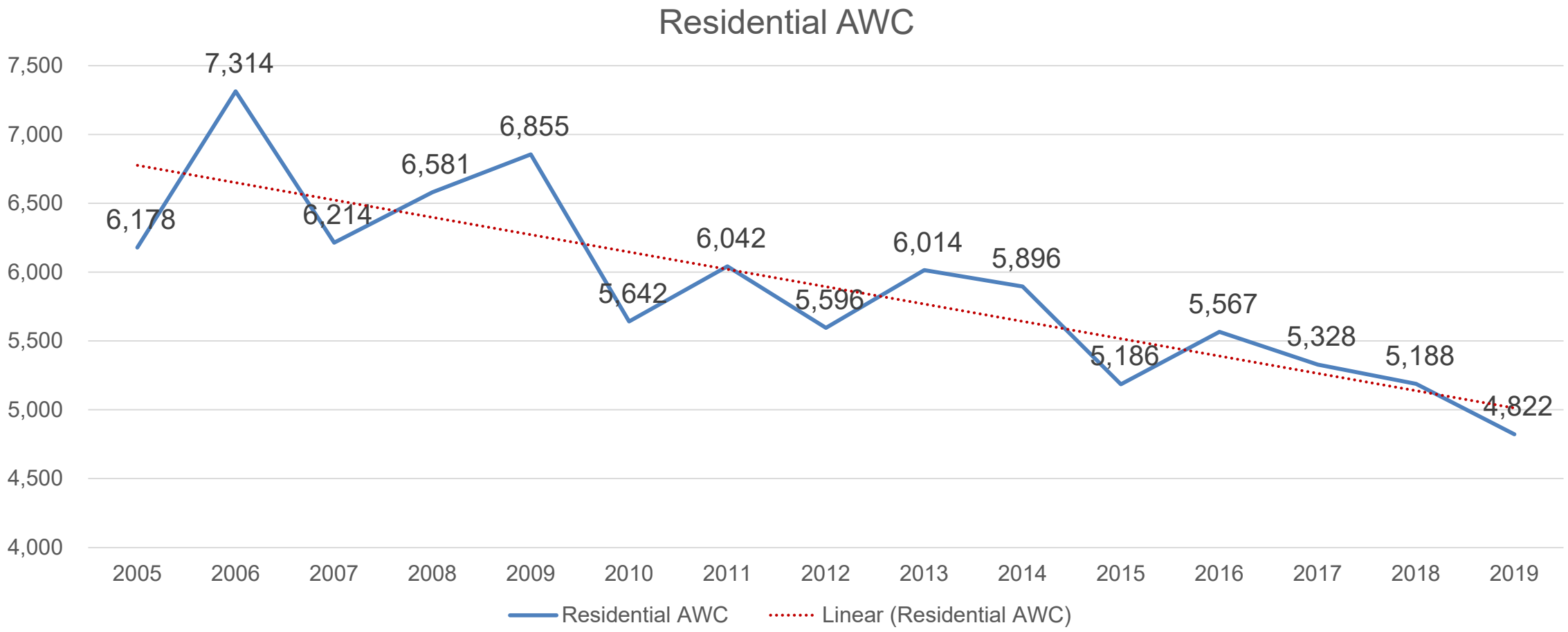
Residential Average Winter Consumption

Declined 22% Since 2005 – More than 7% in 2019 Alone



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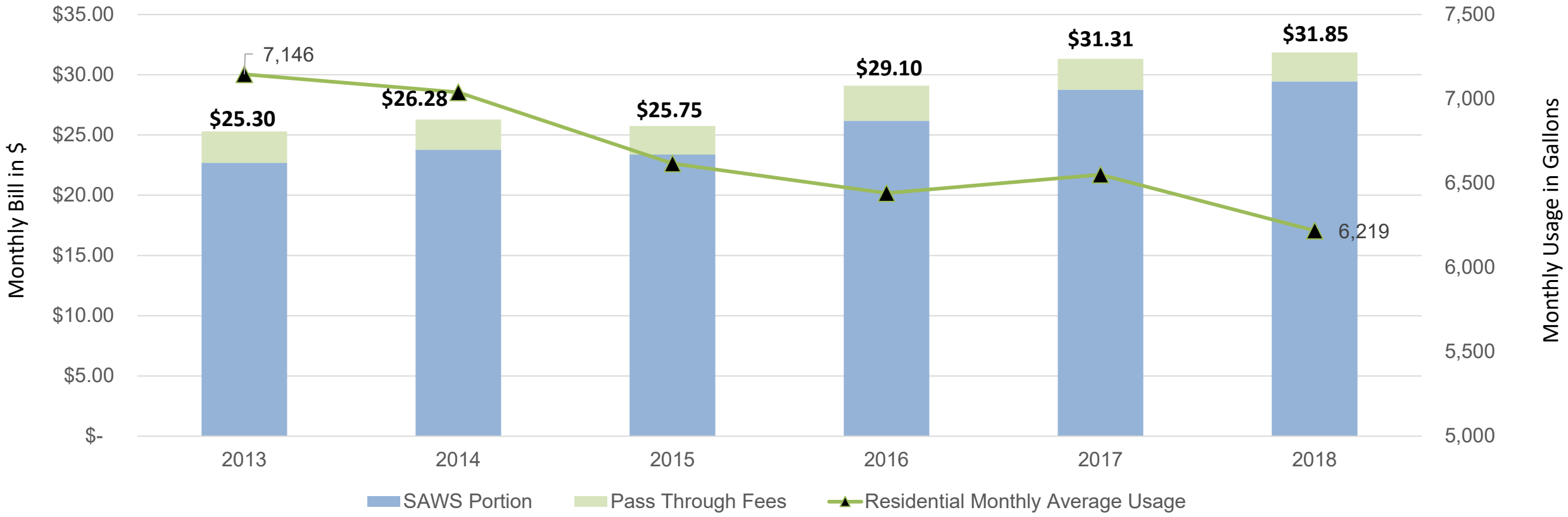
SAWS Average Residential Water Bill 2013 - 2018

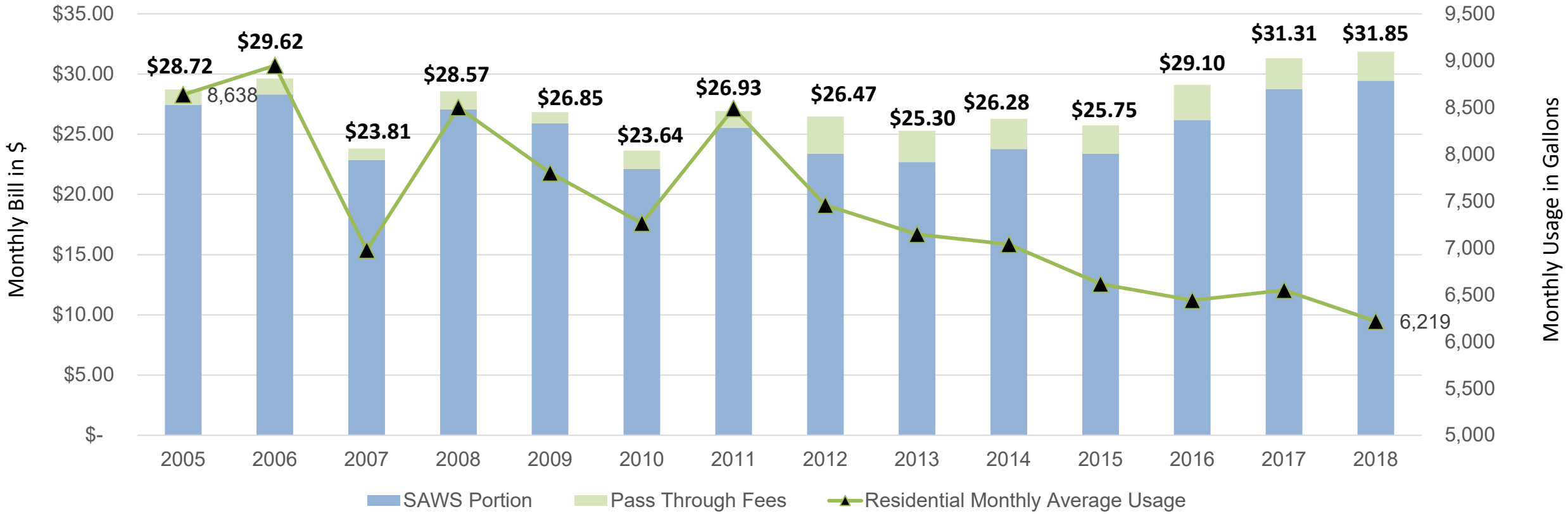
From 2013 to 2018 Monthly Average Residential Water Usage Has Declined 13% - Cost Has Increased 26%



San Antonio Water System

SAWS Average Residential Water Bill 2005 - 2018

From 2005 to 2018 Monthly Average Residential Water Usage Has Declined 28% - Cost Has Increased 11%



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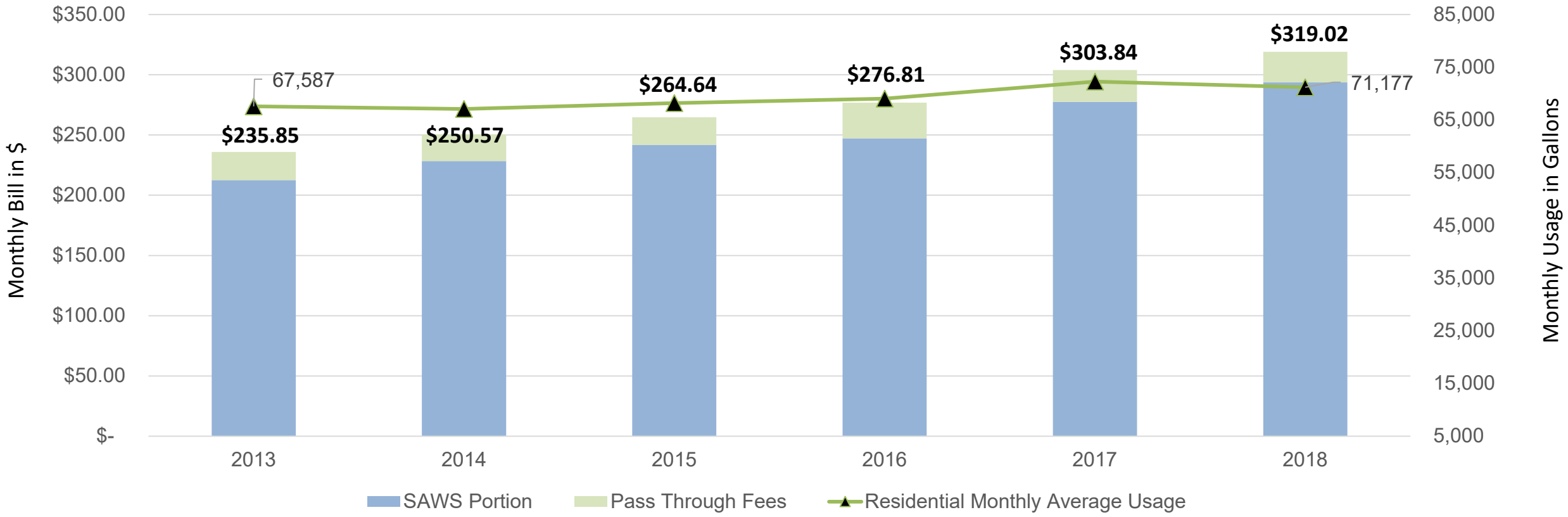
SAWS Average General Class Water Bill 2013 - 2018

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



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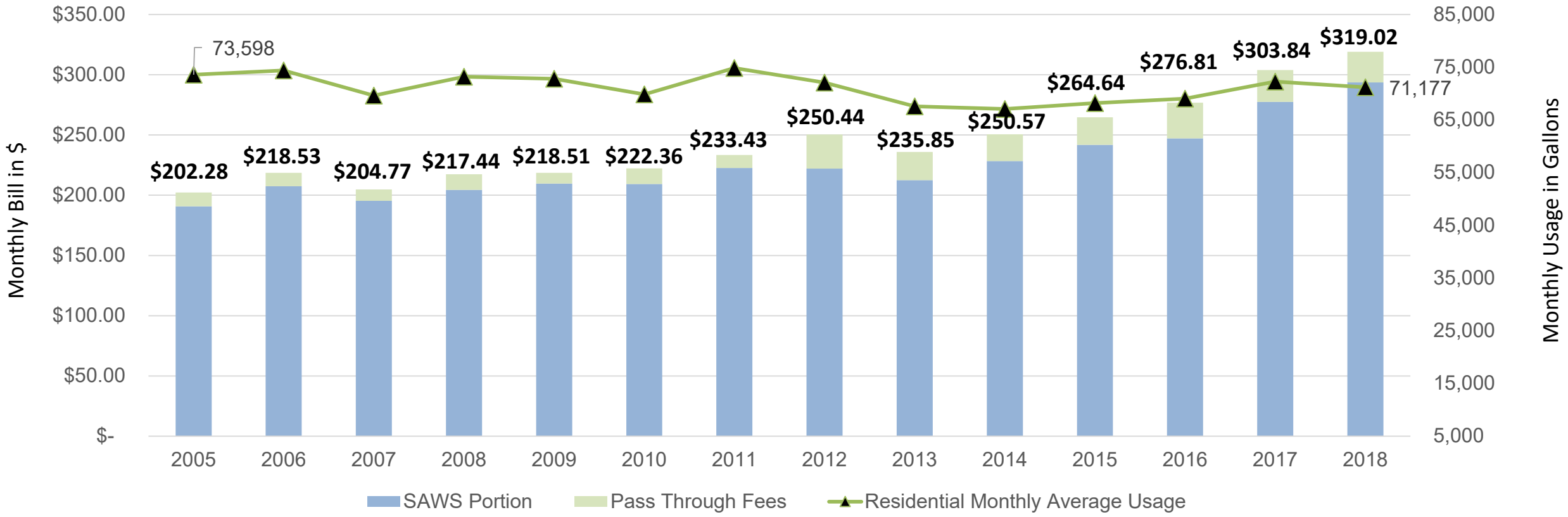
SAWS Average General Class Water Bill 2005 - 2018

From 2005 to 2018 Monthly Average General Class Usage Has Declined 3% - Cost Has Increased 58%



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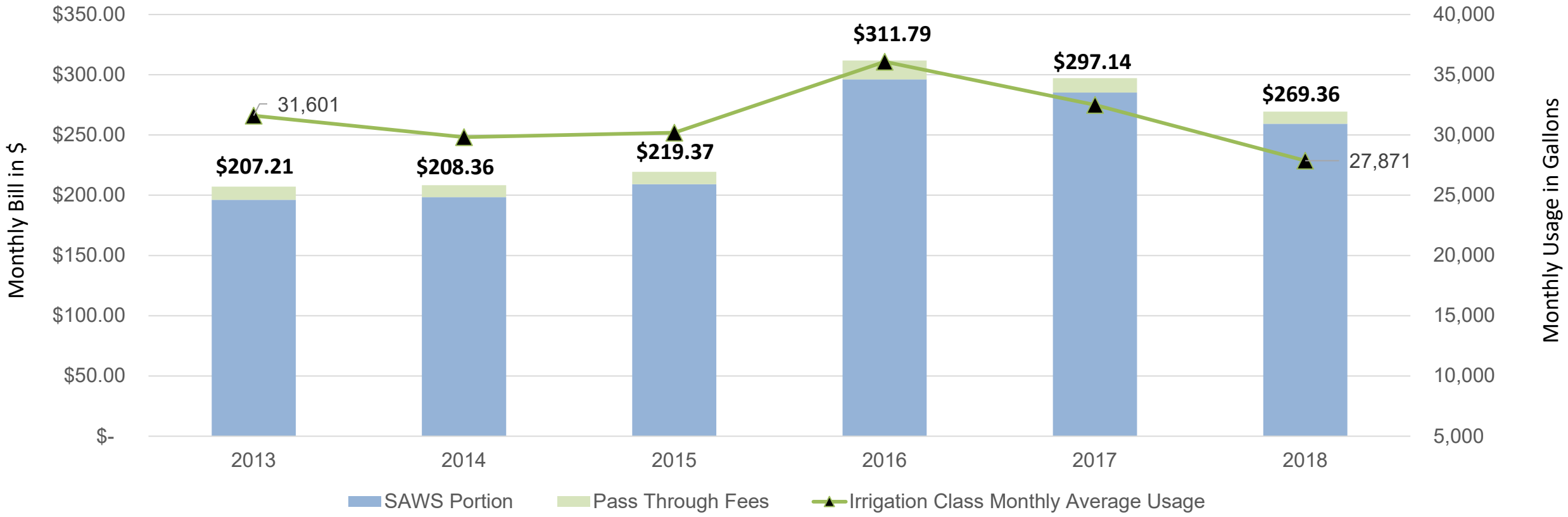
SAWS Average Irrigation Class Water Bill 2013 - 2018

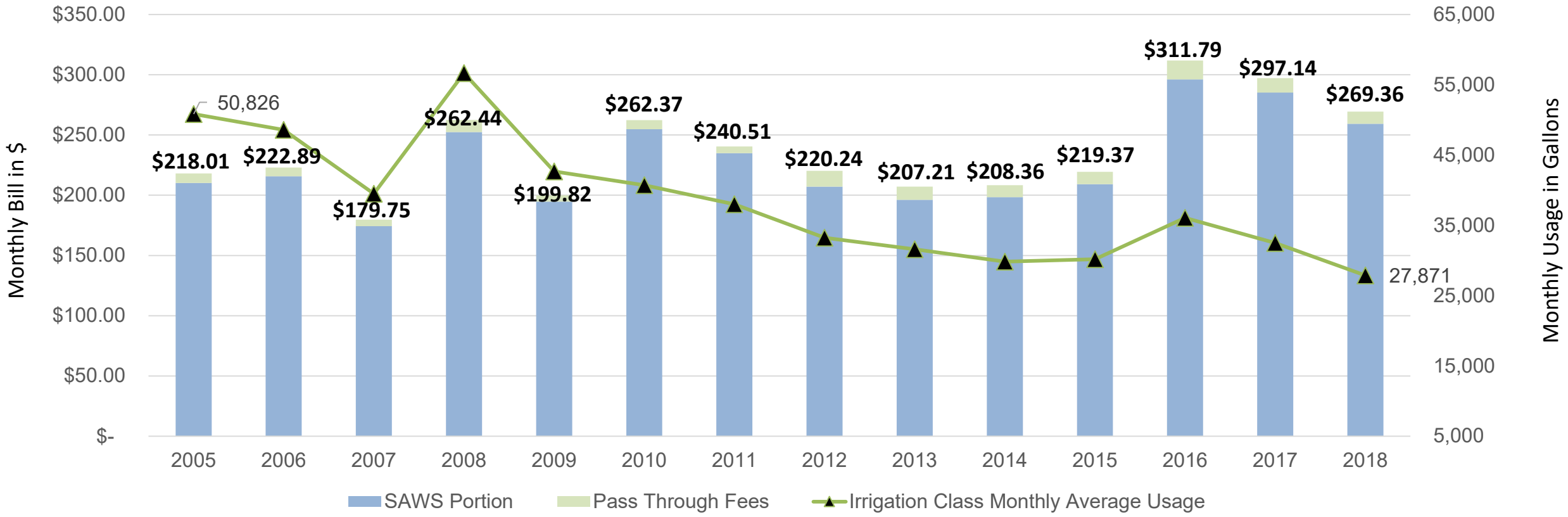
From 2013 to 2018 Monthly Average Irrigation Class Usage Has Declined 12% - Cost Increased 30%



San Antonio Water System

SAWS Average Irrigation Class Water Bill 2005 - 2018

From 2005 to 2018 Monthly Average Irrigation Class Usage Has Declined 45% - Cost Increased 24%



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Wastewater Proposed Rate Structure

Line No.	Description	Existing Residential & General	Proposed FY 15 Residential	Proposed FY 15 General
	Availability Charge (meter size)*	*(per bill)*		
1	5/8"	$12.69	$11.67	$11.67
2	3/4"	$12.69	$12.84	$12.84
3	1"	$12.69	$14.59	$14.59
4	1 1/2"	$12.69	$20.43	$20.43
5	2"	$12.69	$29.18	$29.18
6	3"	$12.69	$58.36	$58.36
7	4"	$12.69	$87.54	$87.54
8	6"	$12.69	$145.90	$145.90
9	8"	$12.69	$233.43	$233.43
10	10"	$12.69	$350.15	$350.15
11	12"	$12.69	$466.87	$466.87
	Wastewater Volumetric Rate	*(per 100 gal)*		
12	Block 1**	$0.3365	$0.2495	$0.3343
13	Block 2		$0.3743	

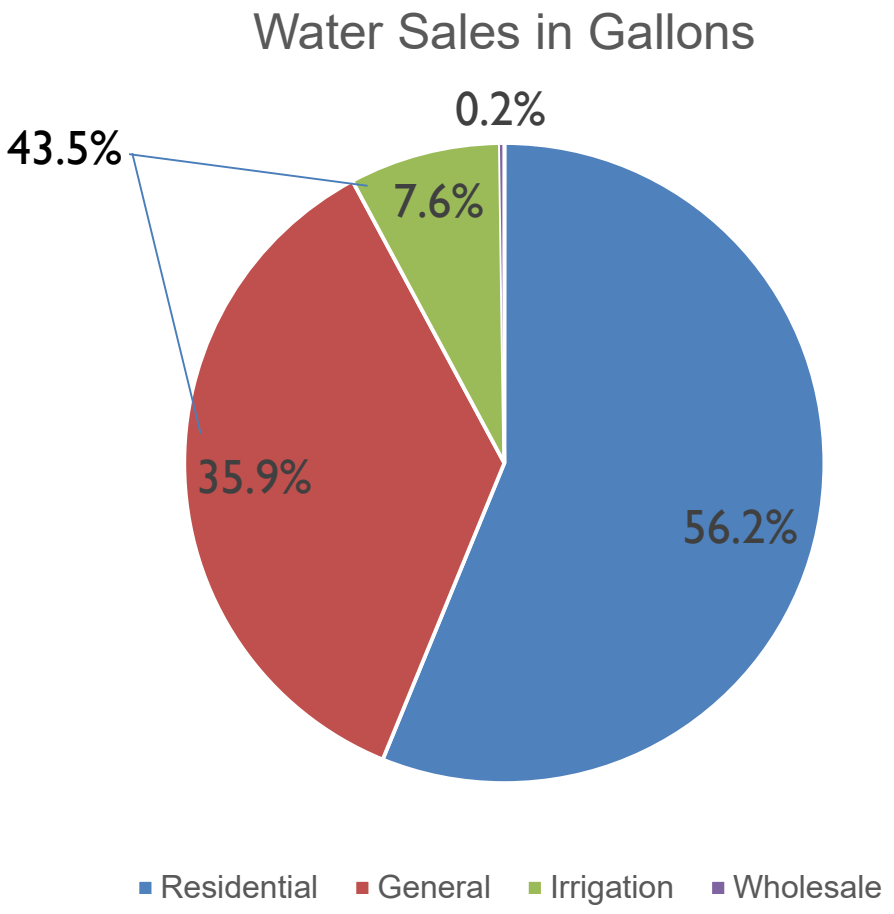
* Service availability charge includes a minimum allowance of 1,496 gallons.

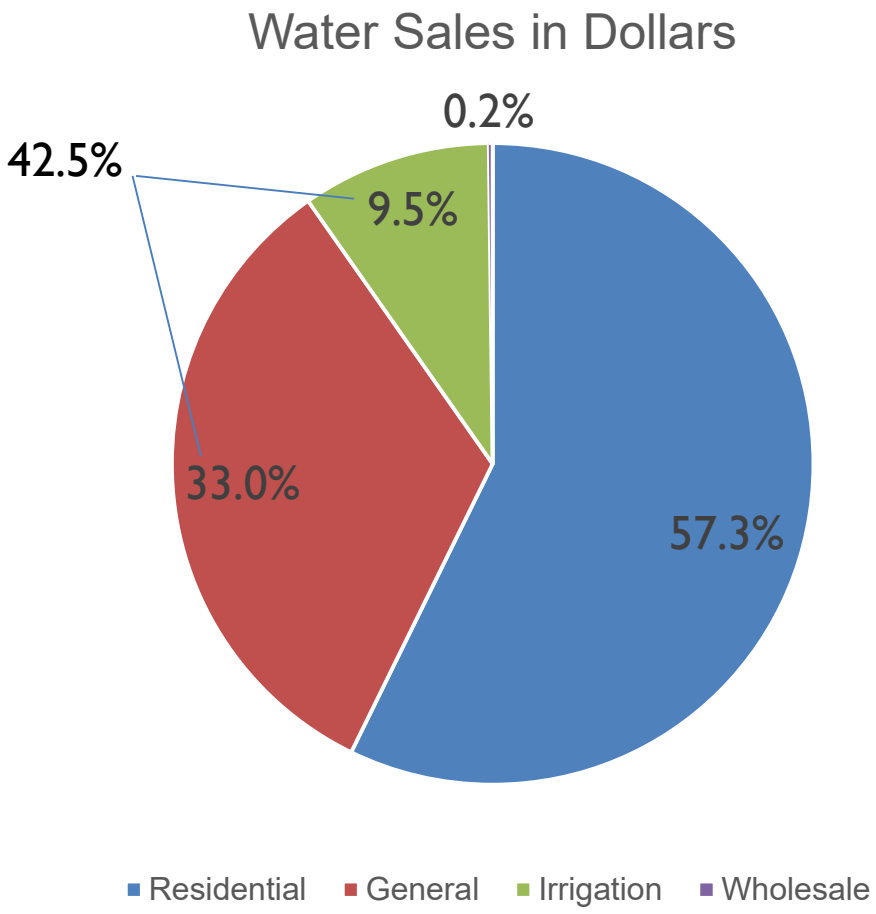
** The proposed residential volumetric rates consist of two blocks with Block 1 ending at 2,992 gallons.

Challenges – Issues

2005 Water Sales by Customer Class

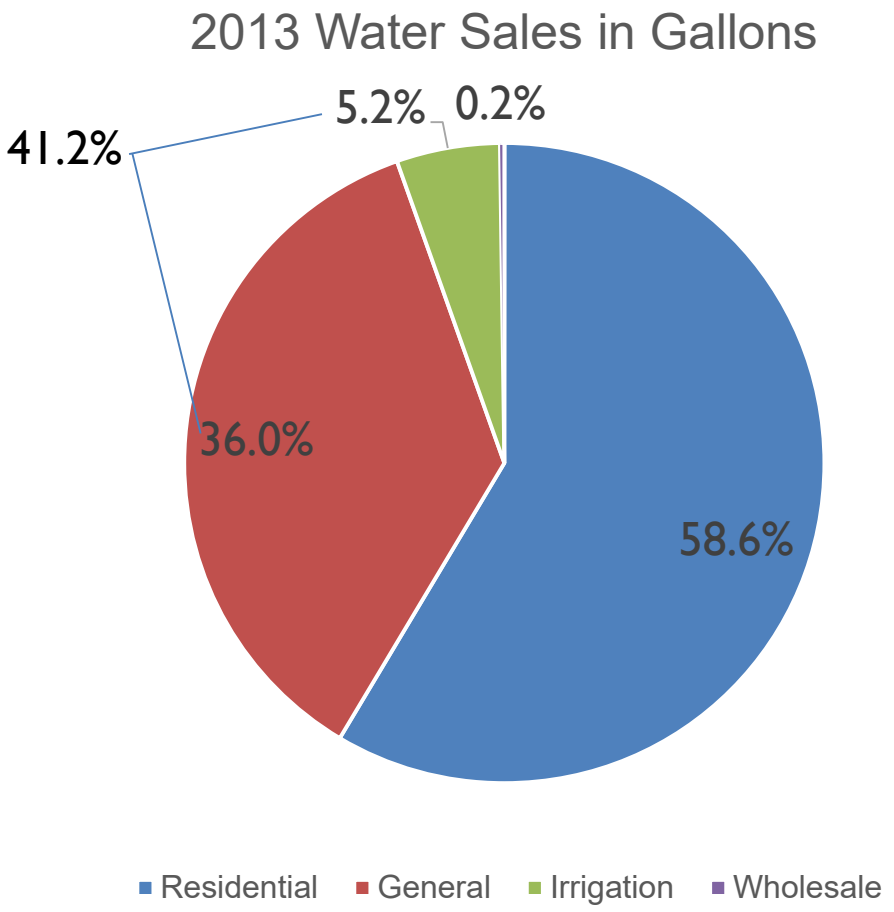
Volumetric Sales Percentages by Class Roughly Equate to Dollar Sales Percentages

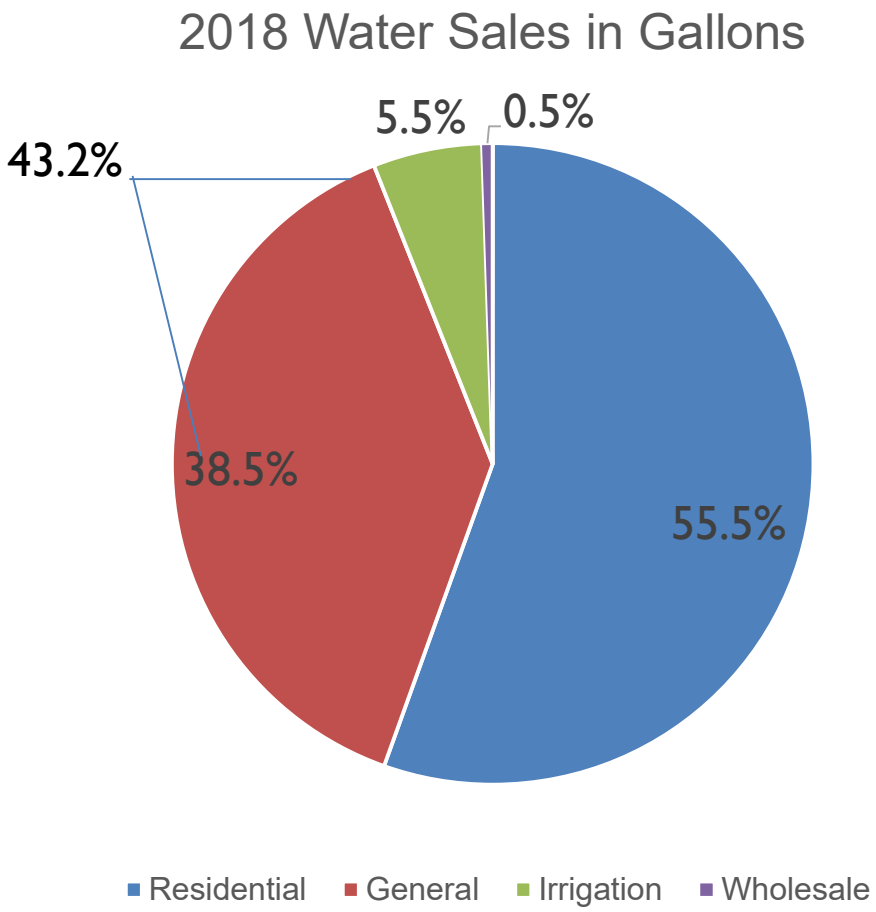




2013 & 2018 Water Usage by Customer Class

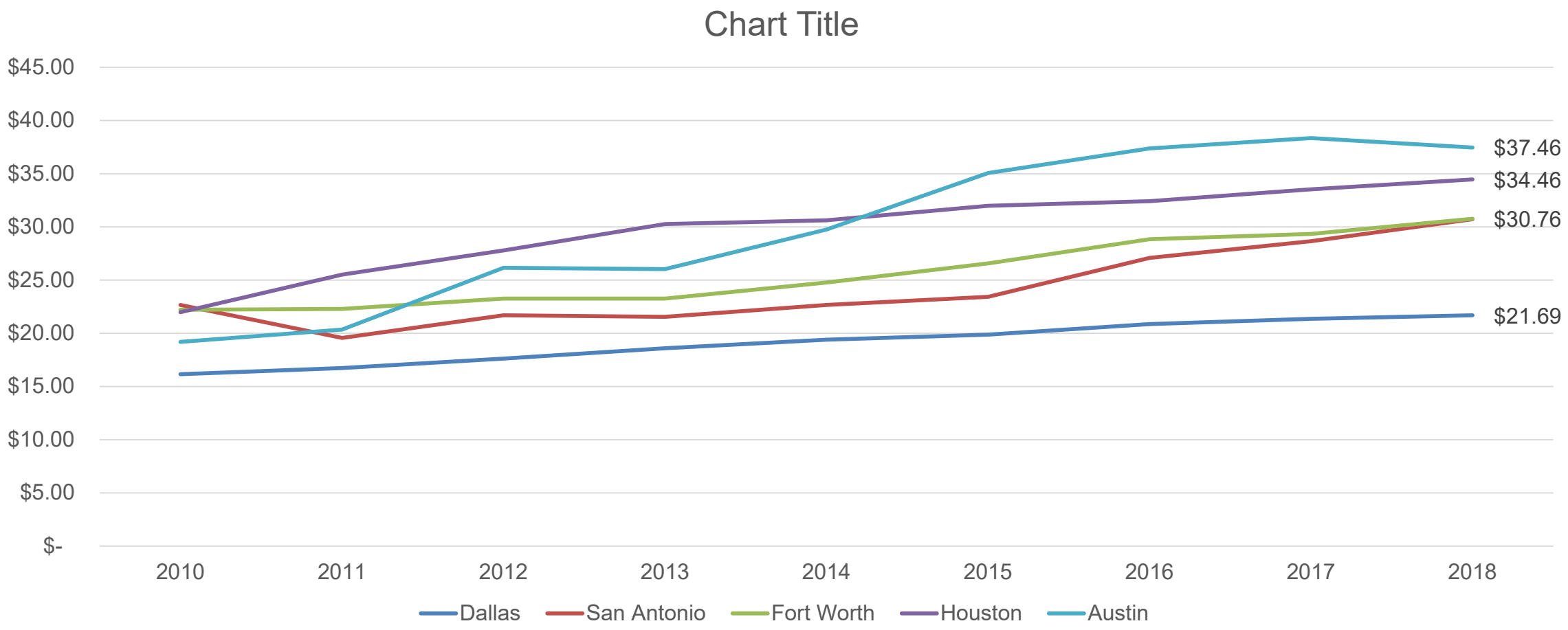
Cost for Irrigation Water Has Increased – Other Percentages Relatively Constant





Texas Pricing Comparisons Over Time

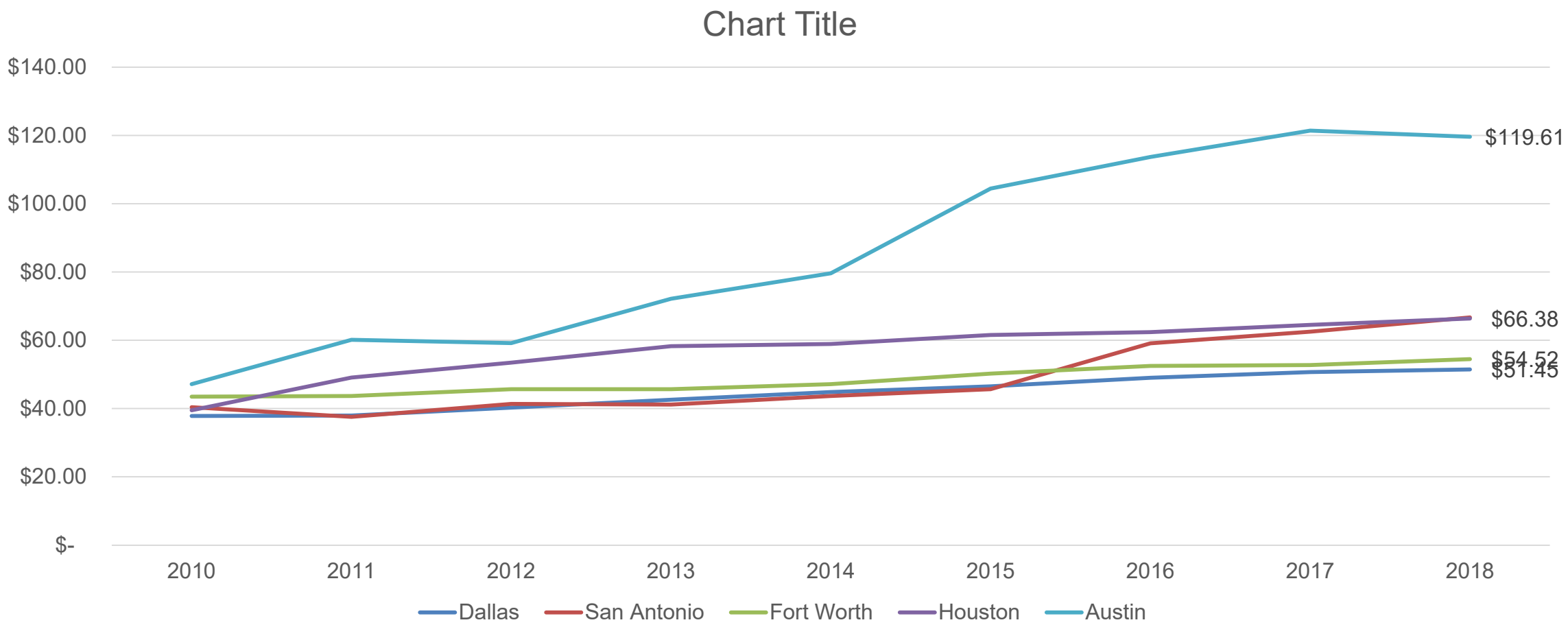
Circle of Blue – Price of Water 2018 – Residential 6,000 Gallons



San Antonio Water System

Texas Pricing Comparisons Over Time

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



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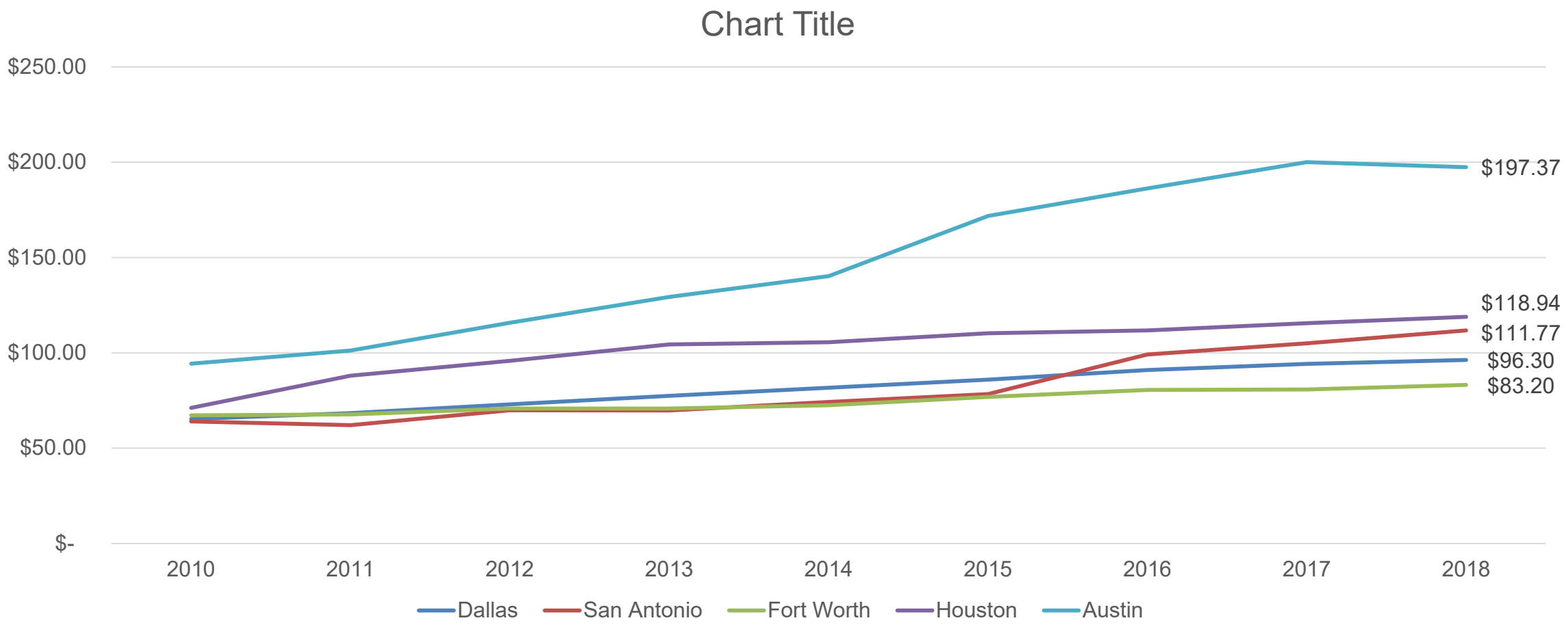
Texas Pricing Comparisons Over Time

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



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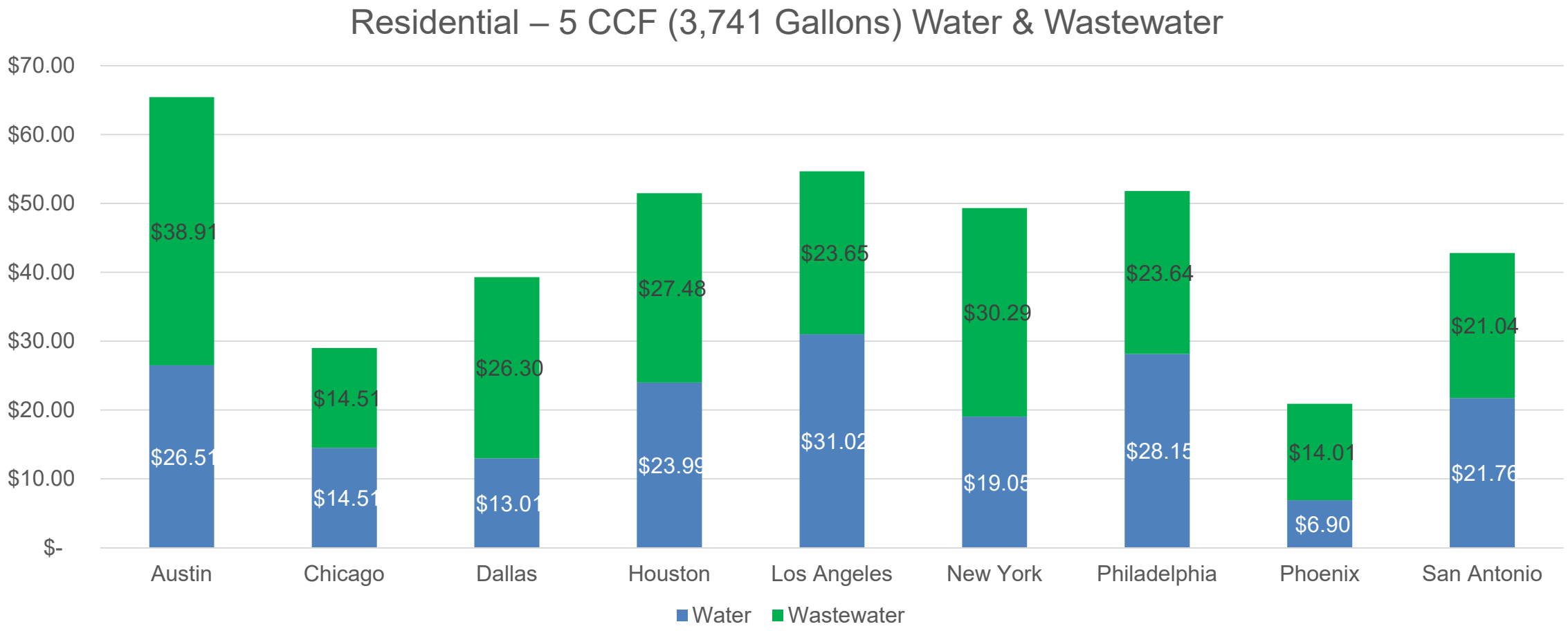
MLGW 2018 Utility Bill Comparisons*

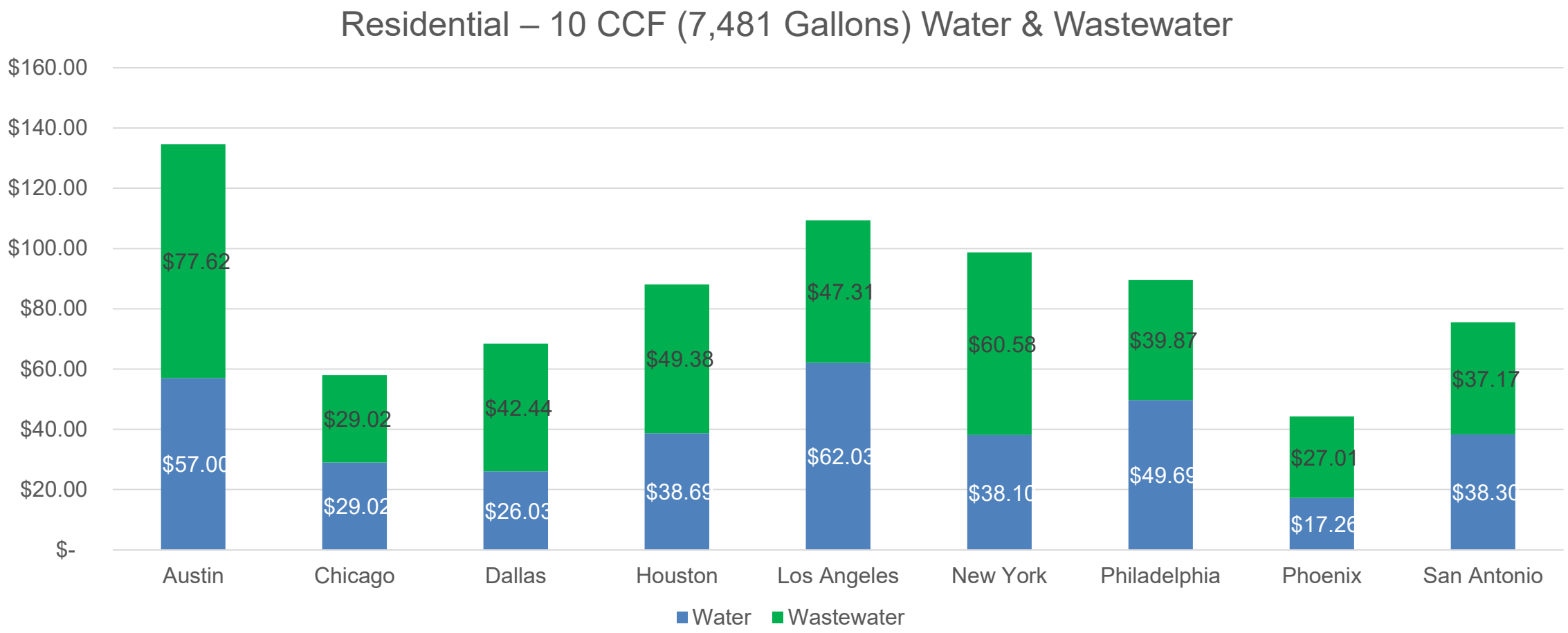
SAWS ~ 5% Less Than Average



San Antonio Water System

MLGW 2018 Utility Bill Comparisons*

SAWS ~ 13% Less than Average



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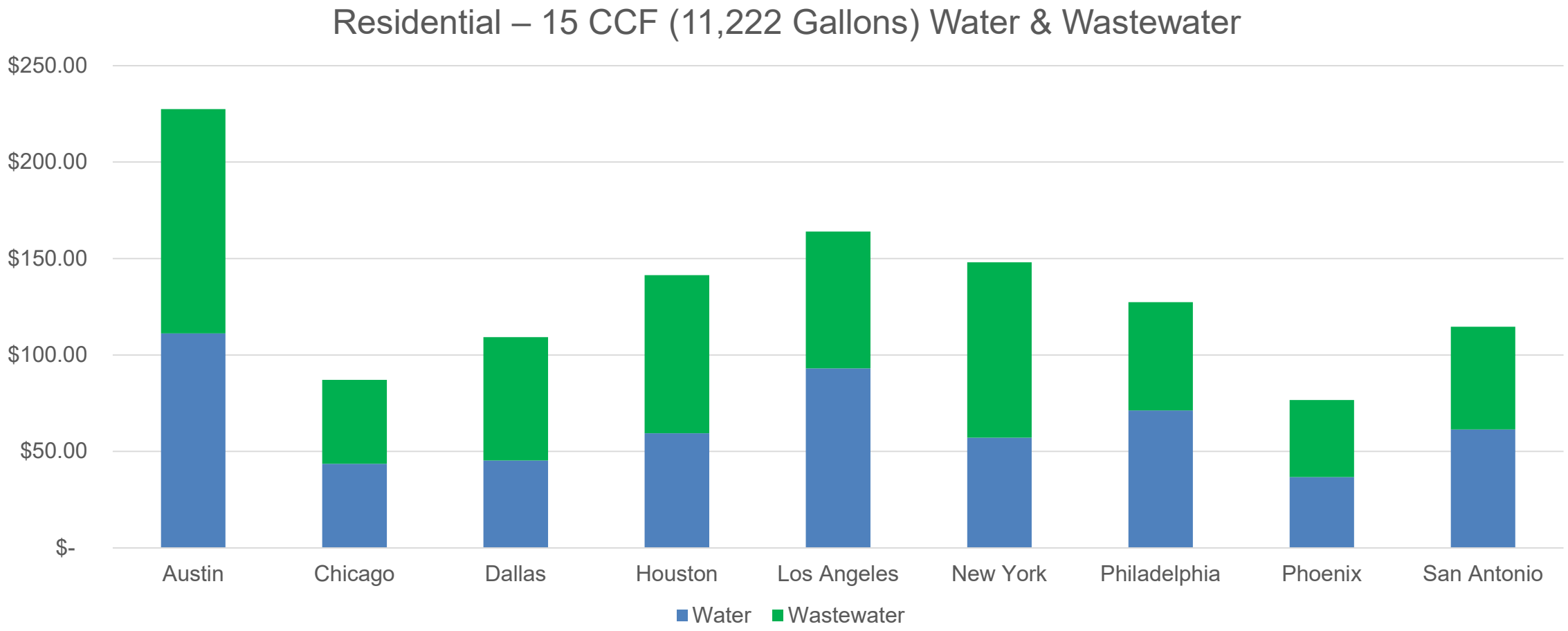
MLGW 2018 Utility Bill Comparisons*

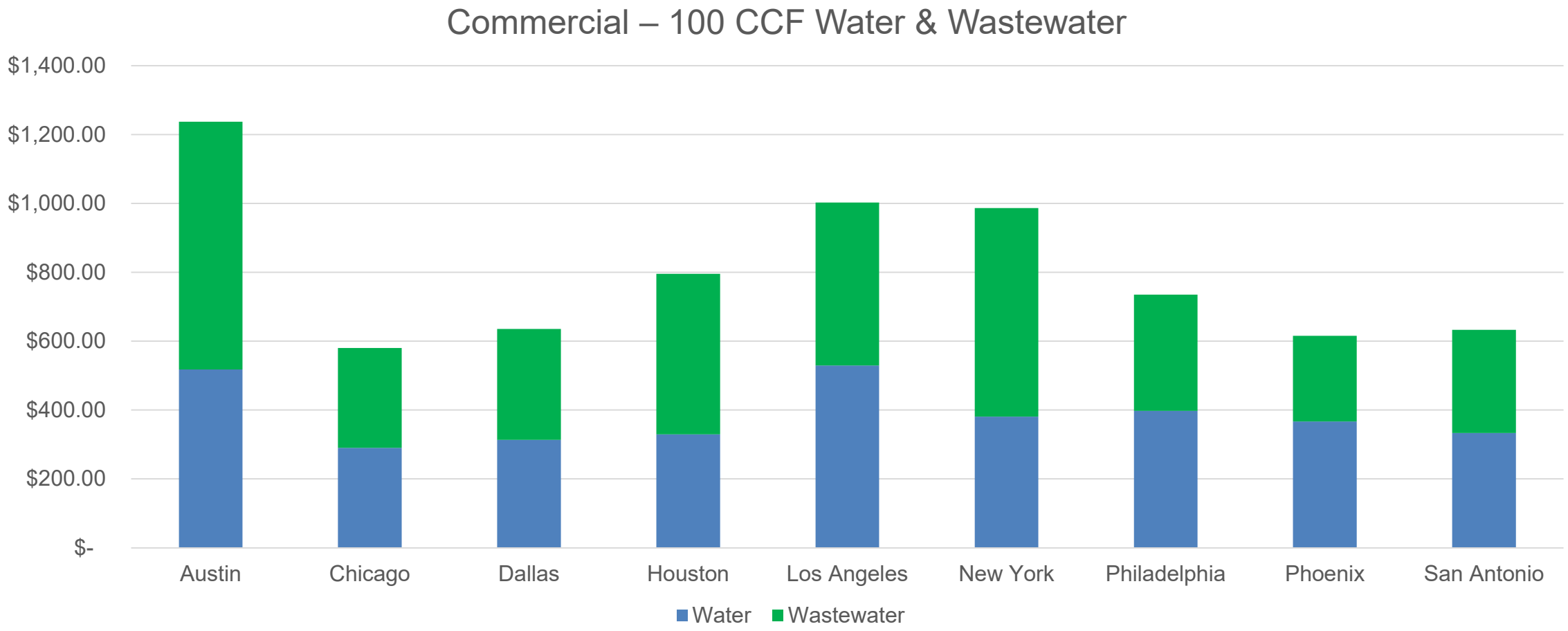
SAWS ~ 15% Less than Average



San Antonio Water System

MLGW 2018 Utility Bill Comparisons

SAWS ~ 23% Less Than Average



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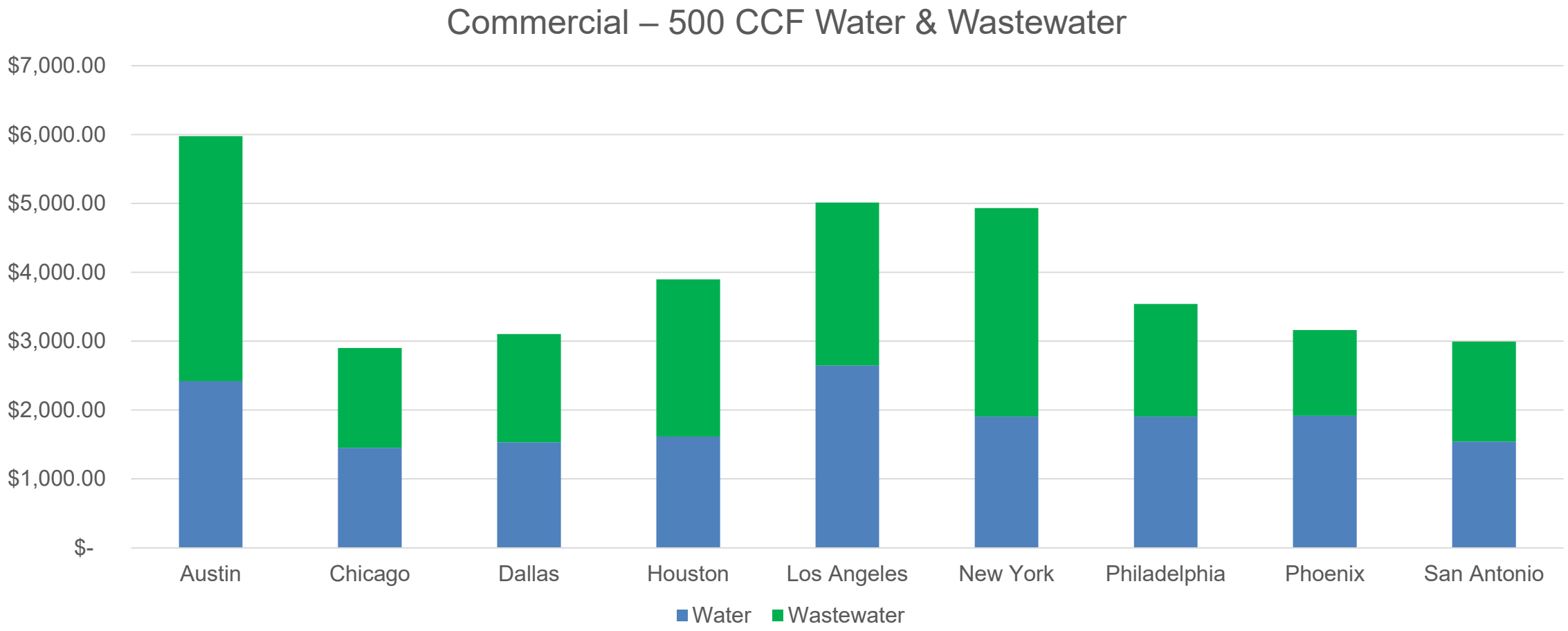
MLGW 2018 Utility Bill Comparisons

SAWS ~ 26% Less Than Average



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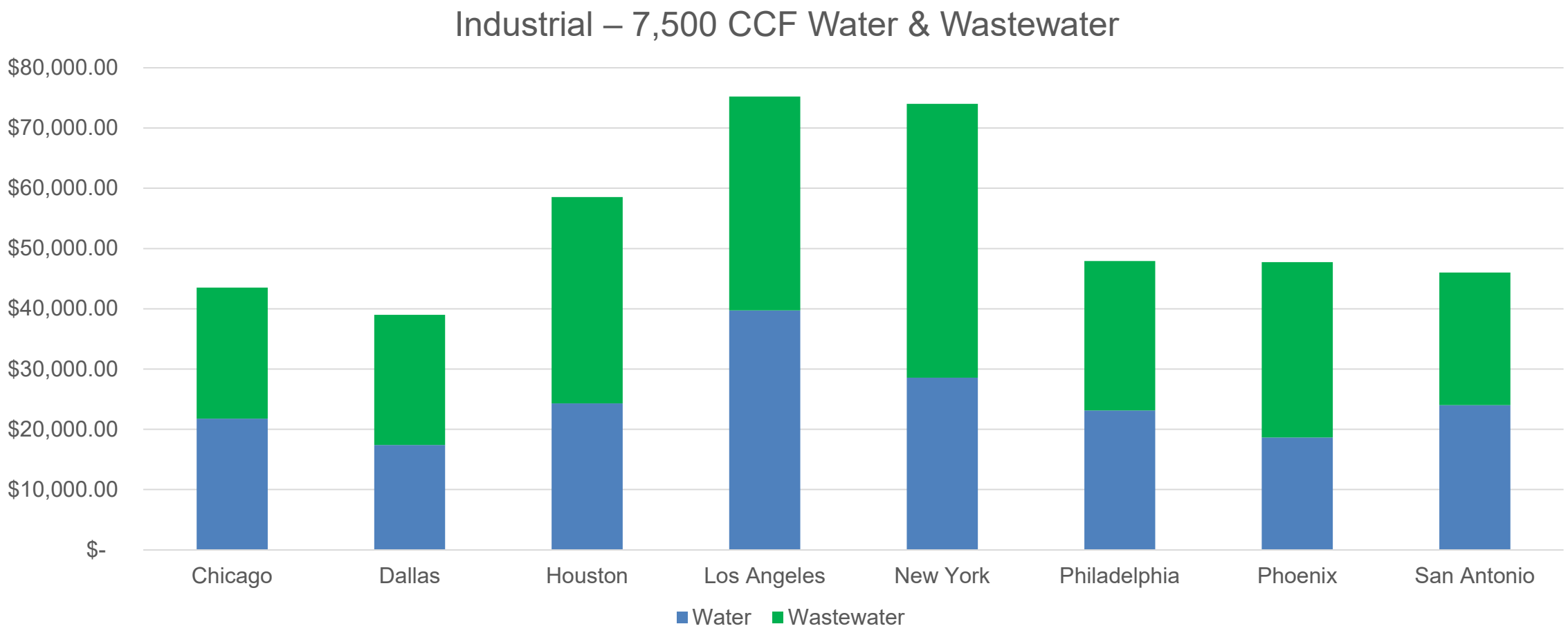
MLGW 2018 Utility Bill Comparisons

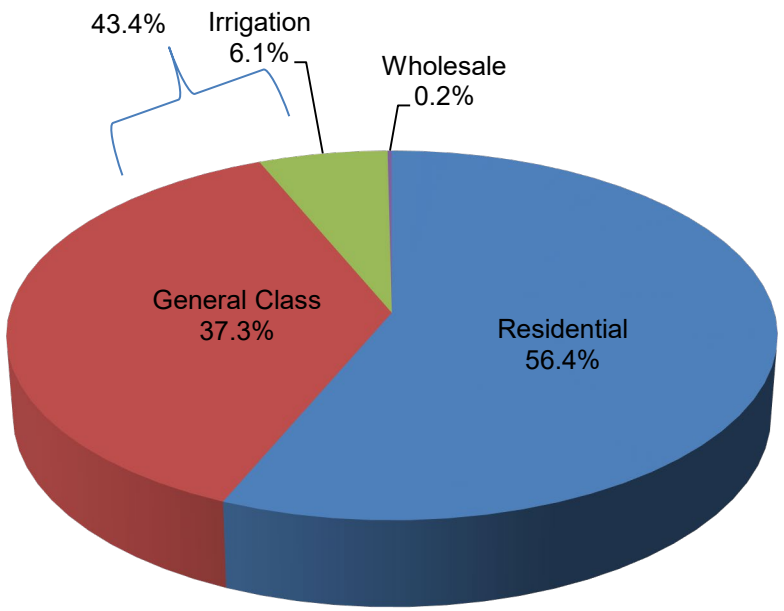
SAWS ~ 17% Less Than Average



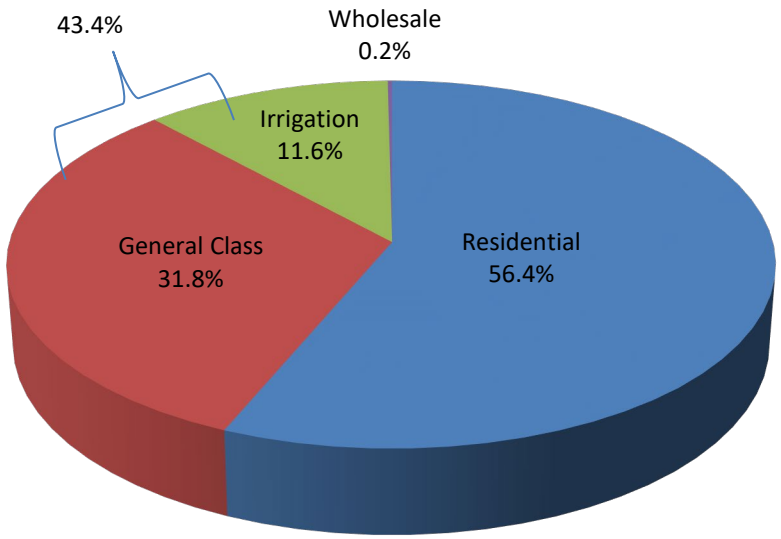
San Antonio Water System

Cost of Service

Potable Water Usage vs Allocated Cost



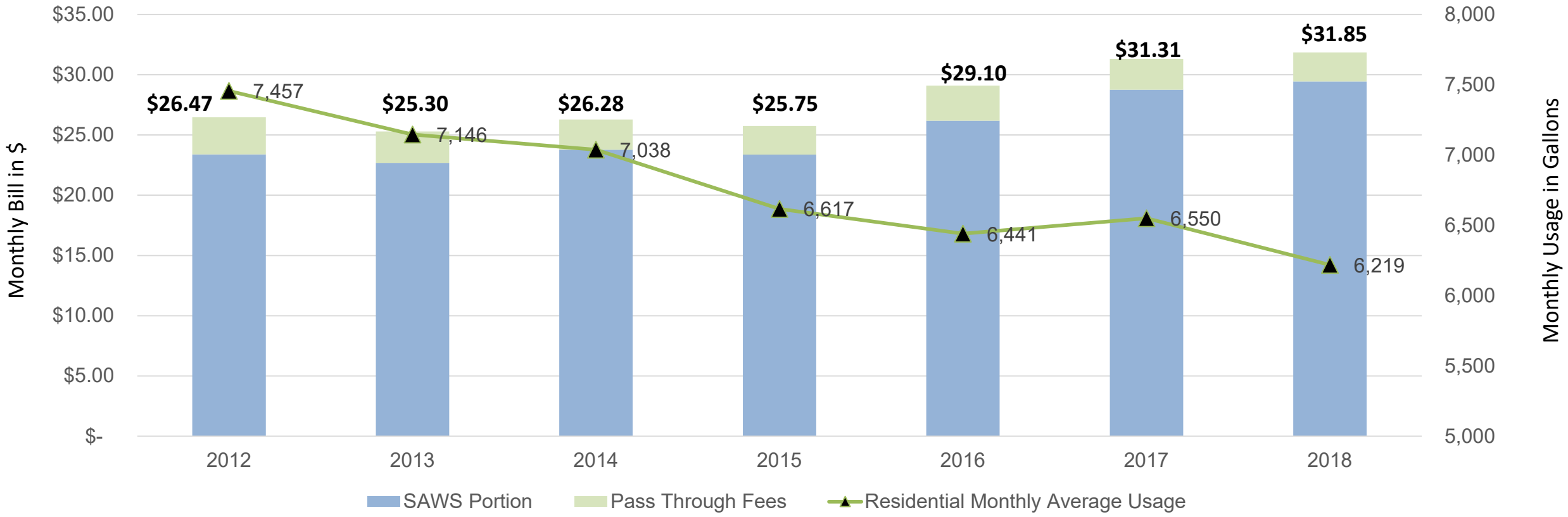
Usage



Cost of Service

SAWS Average Residential Water Bill 2012 - 2018

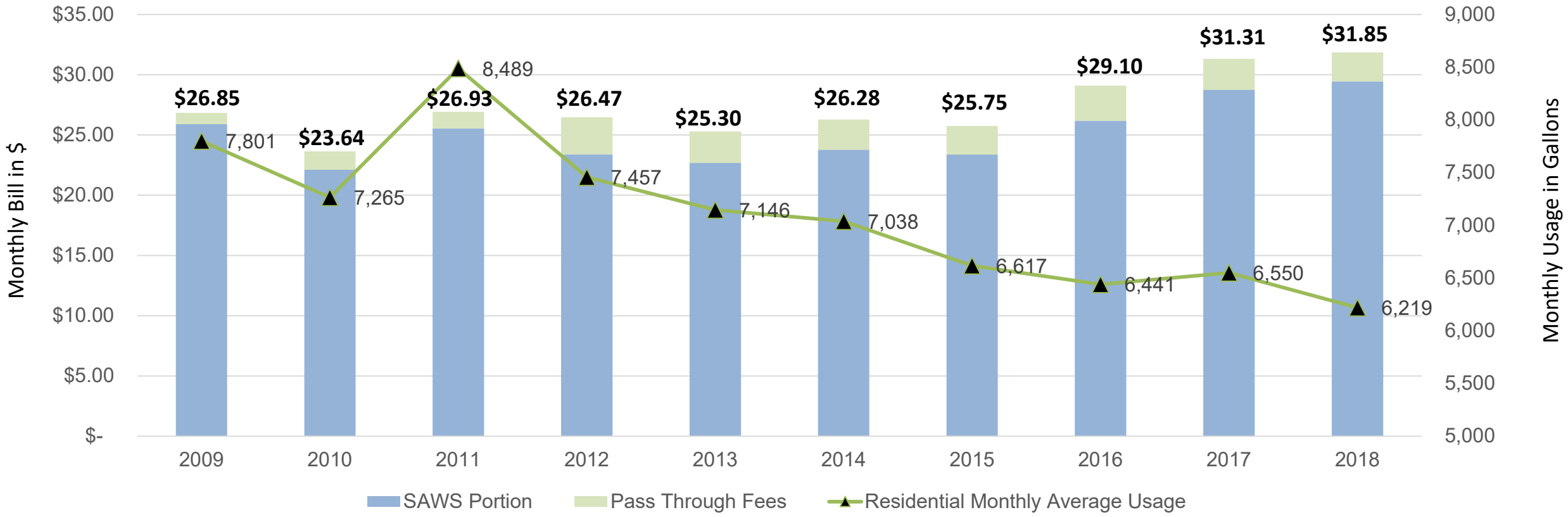
Due to Declining Usage and Rate Structure Changes SAWS Average Residential Water Bill Declined from 2009 - 2015



San Antonio Water System

SAWS Average Residential Water Bill 2009 - 2018

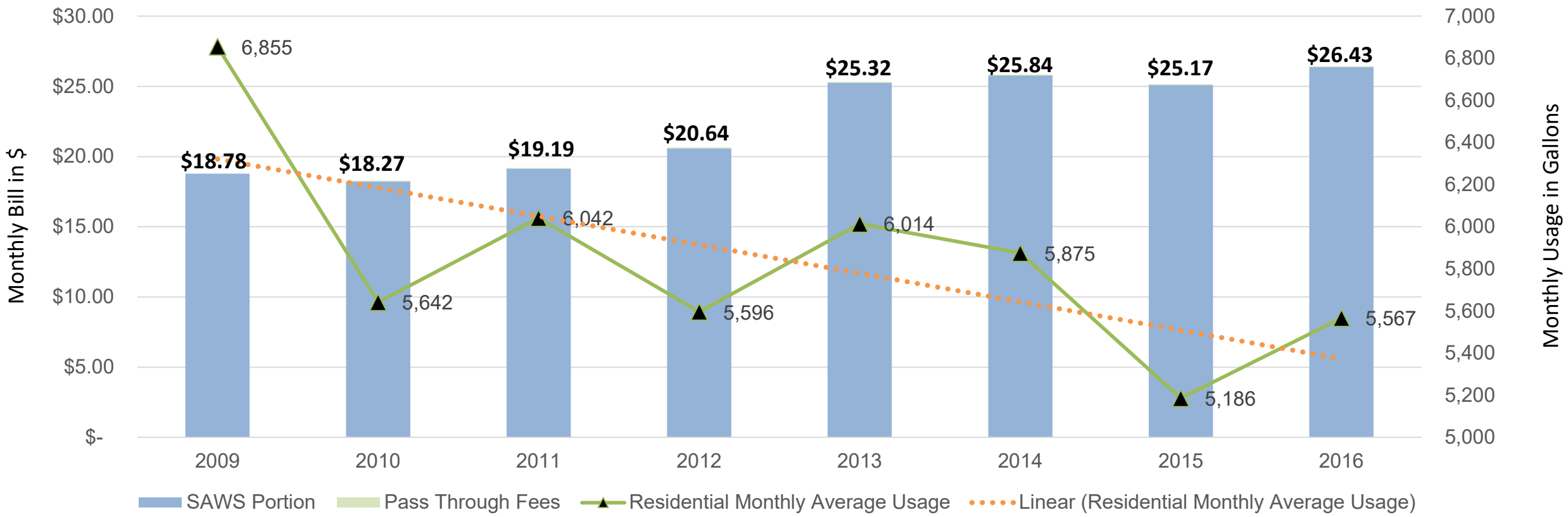
SAWS Average Residential Water Bill Has Increased ~ 1.7% Per Year Over Last Decade



San Antonio Water System

SAWS Average Residential Sewer Bill 2009 - 2016

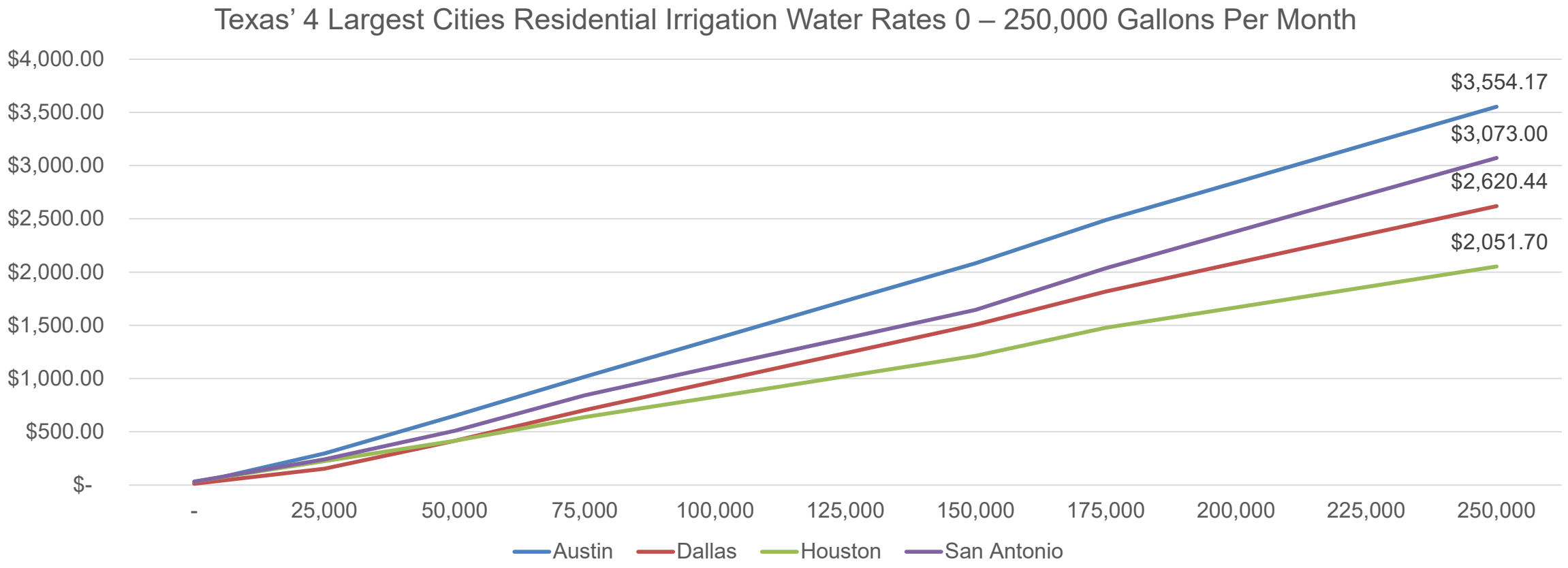
Average Residential Sewer Bill Has Grown ~ 5% Per Year Since 2009



San Antonio Water System

Texas Residential Irrigation Rate Structure Comparison

Only SA & Houston Have Separate Rate Structures for Irrigation Meters



* 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

San Antonio Water System