



Austin Water Affordability Metrics Report



May 2021

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Report Overview

Austin Water (AW) initiated the Austin Water Affordability Benchmark Study in response to City Council Resolution No. 20180201-068, which directed the City Manager to provide information on internal affordability benchmarks, conduct a comprehensive affordability study and make recommendations on affordability metrics to track and communicate. The initial Austin Water Affordability Benchmark Study was completed and provided to Council in December 2018 (FY2019). AW continues to annually update the affordability metric report in an effort of ensuring affordable utility bills for all customers.

Affordability Efforts

Maintaining affordable water and wastewater service is a critical component of managing the rising cost of living in Austin. Austin Water (AW) continues its affordability efforts to ensure a reliable supply of high-quality drinking water and wastewater services that is affordable. AW maintains focus on affordability efforts in several ways, as listed below.

- **Customer Assistance Programs:** AW provides for significant affordability for its most vulnerable low-income customers. These Customer Assistance Programs (CAP) provide reduced water and wastewater bills to over 14,000 residential customers. A new CAP initiative was also implemented in FY2021 to provide bill credits to over 15,000 multifamily customers, to provide a discount for water and wastewater service billed through a master meter. These CAP programs include:
 - Water & Wastewater Service Customer Charge Waiver, Tiered Fixed Charge Waiver, and Volumetric Rate “CAP Bill” Discounts – AW provides waivers for all fixed fees and water and wastewater volume rate discounts for eligible residential CAP customers. This discount provides the average residential CAP customer a 45% discount as compared to regular Non-CAP residential bills.
 - Residential CAP Bill Rate Reductions – Over the last few years, AW has been able to implement residential CAP customer rate reductions, providing more affordability. In FY2018, CAP customers saw a 11.4% average bill reduction. In FY2019, residential CAP customer rates were unchanged and in FY2020, CAP customers saw an 8.3% average bill reduction.
 - COVID-19 Bill Relief – In April 2020, the City Council approved COVID-19 Bill Relief for residential water and wastewater customers. Volume rates were reduced by 10% for water tiers 1-3 and wastewater tiers 1-2 for residential CAP and Non-CAP customers. This rate reduction continued throughout FY2020 for residential Non-CAP customers and extended through FY2021 for CAP customers, providing extended bill relief for our most vulnerable customers. Additionally, AW provided a \$5.0 million contribution in FY2020 and another

\$5.0 million in FY2021 to the City's Financial Support Plus 1 Program, which provides bill payment assistance to residential customers experiencing COVID-19 related economic hardship.

- Financial Support Plus 1 Program – The financial support plus 1 program provides emergency financial help for residential customers that are having temporary difficulty paying utility bills.
 - Arrearage Management Program – The arrearage management program benefits certain low-income residential customers who were behind on their utility bills in the past. This program is intended to help these customers pay down their previous utility debt balances.
 - Water Leak Repair Program – The water leak repair program benefits low-income residential customers make necessary plumbing and leak repairs, as they can apply for assistance thanks to a new partnership between Austin Water and Neighborhood Housing and Community Development of the City of Austin.
 - Wastewater Lateral Repair Grant Program – AW provides grant funding to the Neighborhood Housing and Community Development Department to administer a low-income grant program for residential customers experiencing failures in the wastewater lateral lines connecting their home to AW's wastewater system. These repairs can be costly for the low-income homeowner and this program provides grants to pay for these repairs.
 - Home Emergency Repair Program – AW agreed to provide up to \$1.0 million in FY2021 to provide funding to the Neighborhood Housing and Community Development Department to fund plumbing repairs and other repairs/work or equipment directly related to damages caused by 2021 Winter Storm Uri for low-income residential customers.
- **Expense Management:** AW manages its expenses through annual strategic and budget planning. AW conducts a thorough budget development process which provides for detail line item budget analysis, several layers of management review and final approval by the Executive Team and Director. The Executive Team comprehensively reviews additional staffing requests to limit cost impacts. AW uses conservative assumptions to ensure overestimating budget costs.
 - **Capital Project Planning:** AW manages its Capital Improvement Projects (CIP) Program ensuring a process of thorough review, approval, and funding strategies. Improving affordability and infrastructure stability are components of the utility's long-term strategic business plan that uses Effective Utility Management strategies to meet the challenges ahead.
 - **Debt Management Strategies:** AW focuses on debt management to reduce debt service costs associated with financing our CIP projects.
 - Financing Strategies – AW strategically reviews the CIP Program for potential Texas Water Development Board (TWDB) Low-Interest Loan funding. Since 2016, AW has been approved for \$266.6 million in TWDB low-interest loans to fund 9 major infrastructure projects. These low-interest loans will help AW make much needed improvements to its infrastructure at a tremendous cost savings for the utility and its customers.

- **Debt Defeasances and Refundings** – Since 2016, AW uses Capital Recovery Fee dollars for annual debt defeasance transactions, that reduce future debt service requirements. These defeasances have allowed for AW to manage and stabilize our debt costs. Debt refundings are the refinancing of debt, which are similar to the refinancing your home mortgage. With the refundings at reduced interest rates, the transaction results in debt service savings. AW’s debt management strategies for debt defeasances and debt refundings have yielded \$199.9 million in debt savings since 2016.
- **Development Strategies:** In FY2014, Austin City Council approved AW to collect capital recovery fees (CRF) also known as Impact Fees, up to the maximum allowable. CRFs dollars derive from a one-time charge to new developments to pay their fair share for water and wastewater infrastructure needed to provide new service. This Council approval allowed for a significant increase in CRF collections, which are essential for reducing AW’s debt service requirements through annual debt defeasance transactions.
- **Rate Reductions and Stabilization:** All of the affordability efforts listed above have allowed AW to reduce and stabilize water and wastewater rates. In 2018, AW implemented a 4.8 percent rate reduction for all retail customers. After this rate reduction, AW maintained stable rates with no rate increases from FY2019 to FY2021. In addition, AW’s proposed budget includes no rate increase for FY2022.

This Affordability Metrics Report provides updated results annually of the recommended affordability metrics from the FY2019 Affordable Benchmark Study. In addition, Austin Water has included additional affordability metrics which provide supplementary results. The bill comparison metrics include 2021 updates to other Texas and national cities’ water and wastewater rates.

The metrics include the following:

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Metric #4: Affordability Ratio (AR₂₀)

Metric #5: Hours Minimum Wage

Metric #6: Average Annual Bill as % of Median Household Income

Metric #7: Average Historical Annual Bill as % of Median Household Income

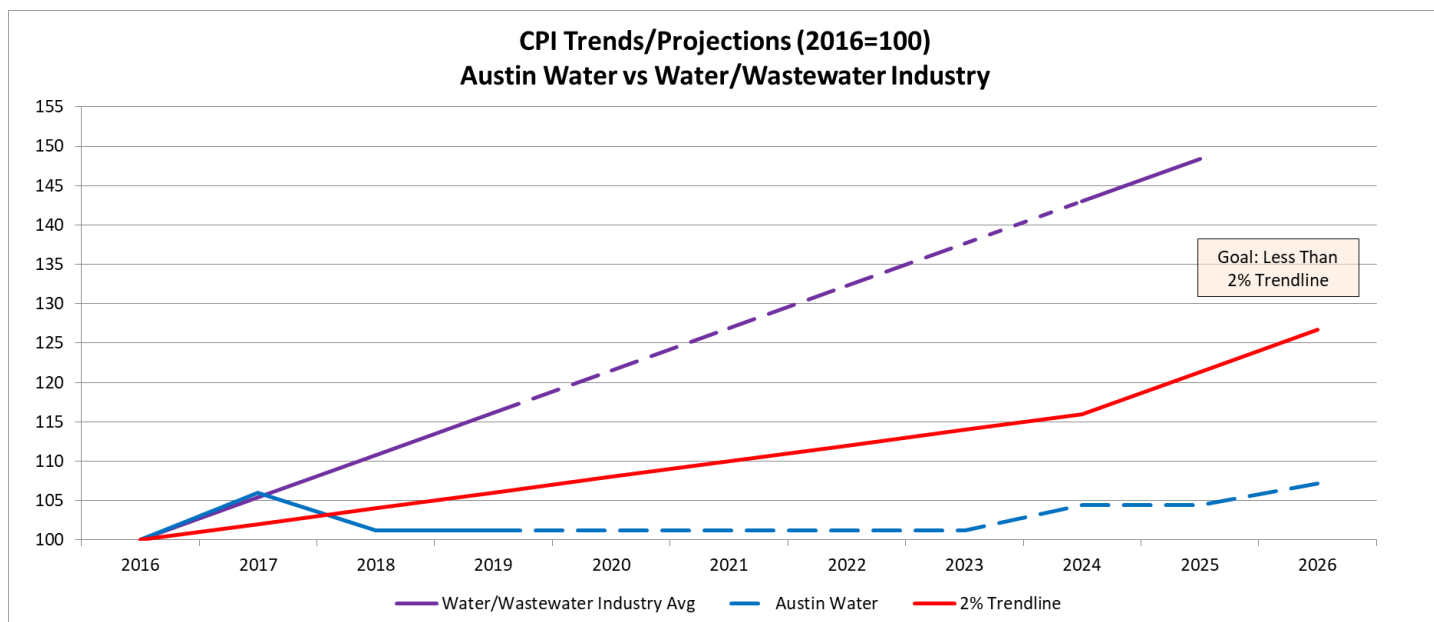
Metric #8: Residential CAP Customer Historical Average Bill

Metric #9: High Volume Residential Bill Comparison

Metric #1: Historical Rate Index

This metric includes a comparison of the Austin Water (AW) historical rate increases, the water and wastewater industry cost index, and a reference 2% annual rate increase trendline. Each of these indices are calculated using a base year of 2016. The goal for this benchmark would be for AW to remain under the 2% annual rate increase trendline. This goal to remain under 2% represents approximately 50% of the current water and wastewater industry index historical trend. This benchmark is consistent with the current Austin Energy benchmark of remaining below a 2% annual rate increase trend.

The graph below shows for 2016 and 2017, AW was trending along the water and wastewater industry index level and above the 2% annual rate increase trendline. However, beginning in the FY2018 Approved Budget, AW submitted a 0% rate increase and subsequently Council approved an amendment to the budget in April 2018 to implement a mid-year 4.8% rate reduction. Since the 2018 rate reduction, AW rates are below both the water and wastewater industry index and the 2% annual rate increase trendline. The graphic also provides for a projection of these indices through 2026. The water and wastewater industry index used a historical 15-year average increase to project through 2026, while AW projected rates through 2026 are based on AW's Financial Forecast completed in March 2021. This forecast assumed no rate increases for FY2022, FY2023, FY2025 with only a projected 3.2% and 2.8% rate increase in FY2024 and FY2026, respectively. With AW proposing multiple years of no rate increases and only two years of rate increases near the 2% level, the projection of the cost trends for AW is currently below the 2% trendline. These results are consistent with those of the 2020 Affordability Metrics Report, which also showed AW below the 2% trendline. However, these results show an improvement in that rates are projected to remain flat through 2023.



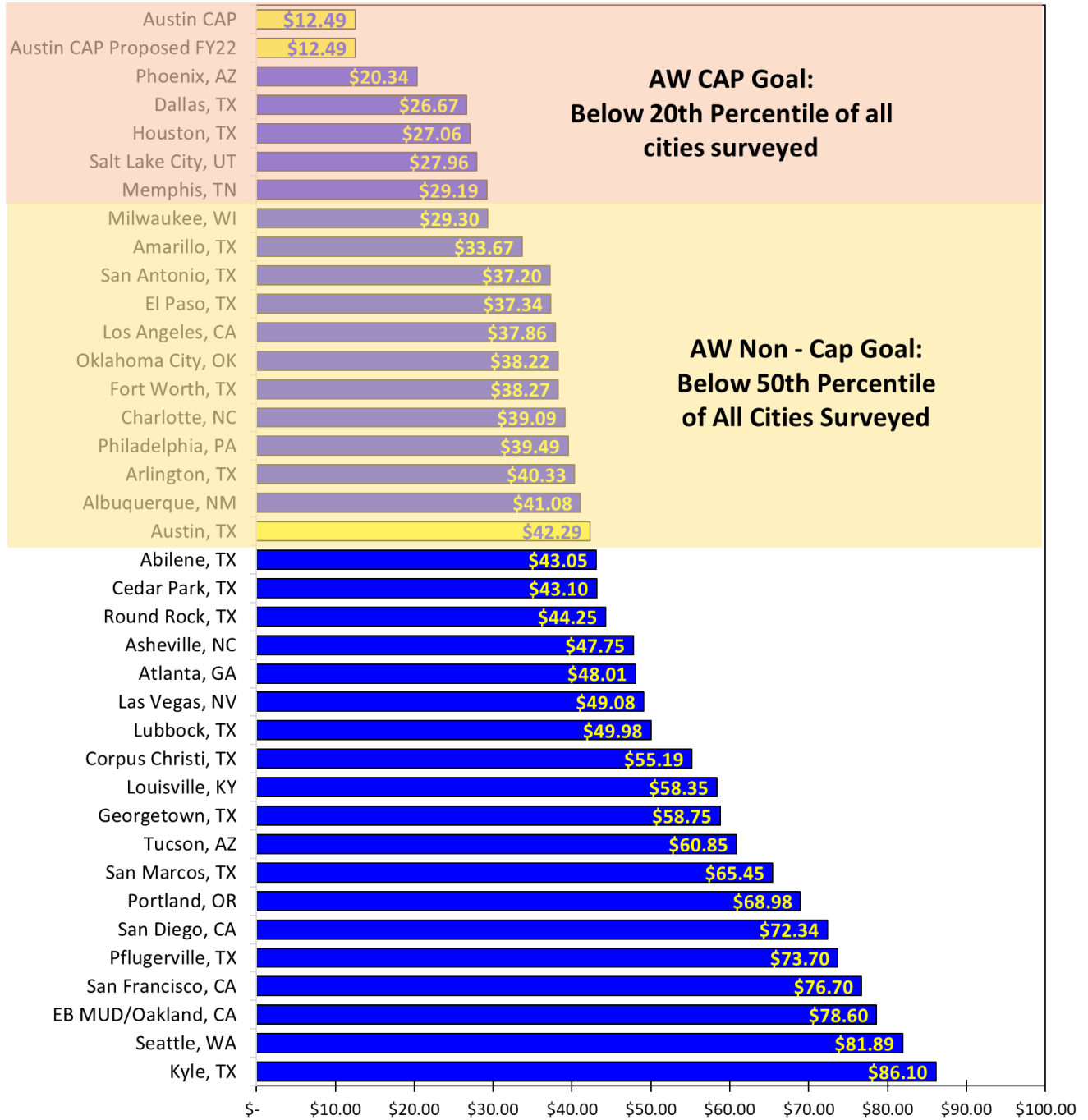
Metric #2: Residential Low Volume Bill Comparison

This metric provides a low volume user bill comparison of Texas and national cities which uses combined water and wastewater bills based on customers using 3,000 gallons of water and 2,000 gallons of wastewater. The comparison of low volume bills is consistent with AW's rate structure goals to promote water conservation and provide affordable basic water services to our customers. A residential Customer Assistance Program (CAP) customer bill at low volumes should be at affordable levels, to ensure our most vulnerable low-income customers have access to basic water services at affordable costs.

AW's goal of low-volume residential CAP customer bills being below the 20th percentile of all cities surveyed. Currently, AW's CAP residential low-volume bills ranked 1st out of all Texas and national cities surveyed. This is consistent with the 2018, 2019, and 2020 Affordability Metrics Report which had AW residential CAP customers the lowest of all cities surveyed. This is due to the waiver of fixed fees and significant volumetric bill discounts provided to our low-income residential CAP customers to keep their bills at affordable levels. In FY2020, AW reduced residential CAP customer average bills and extended that reduction into FY2021 to provide an increased discount to water and wastewater volumetric charges as a response to the impacts of COVID-19.

For residential Non-CAP customer bills, AW's goal is to reside in the bottom half of all Texas and national cities surveyed. Currently, AW is ranked 17th out of the 36 cities surveyed, which is slightly above the 50% level. This is an improvement of one rank higher than the 2020 Affordability Metrics Report, which had AW residential non-CAP customers ranked 18th out of the 36 cities surveyed. As AW's rates are projected not to increase until FY2024, it is expected that our ranking within this benchmark will begin to improve.

**AVERAGE MONTHLY BILL COMPARISON - COMBINED
RESIDENTIAL CLASS
Existing Rates - (3,000 Gallons Consumption and 2,000 Flows)**



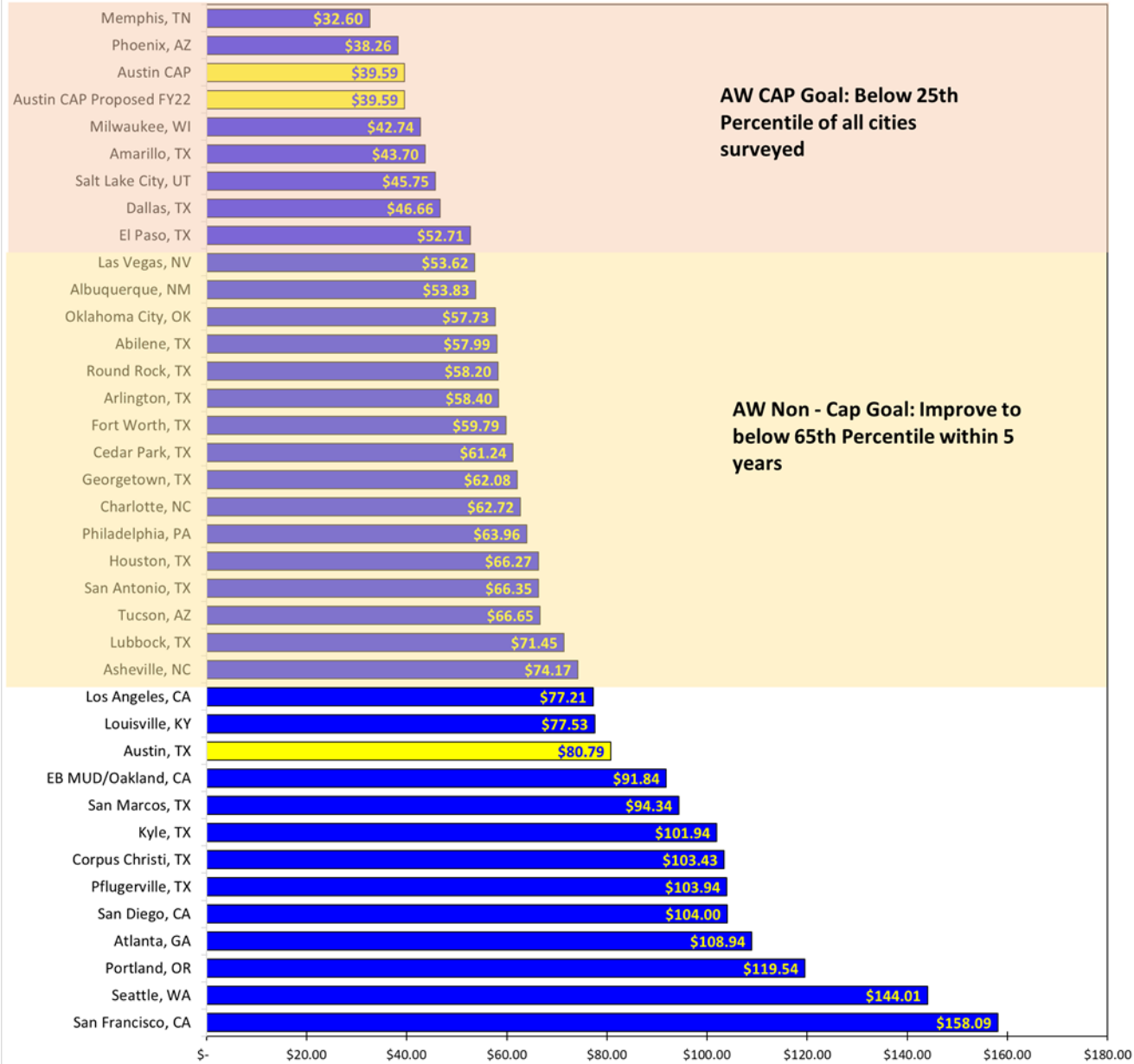
Metric #3: Residential Average Customer Bill Comparison

This metric includes a residential average customer bill comparison. This metric compares combined residential water and wastewater bills at the current AW average residential customer usage levels of 5,800 gallons of water consumption and 4,000 gallons of wastewater discharge per month. Approximately 65% of AW's customers have bills that are at these levels of usage or below. Comparing combined bills at these levels is consistent with AW's rate structure goals to promote aggressive water conservation by our customers. The graph also shows the AW's residential CAP customer bill, which highlights the affordability of our water services for our most vulnerable low-income customers.

AW's goal for residential CAP average bills is at or below the 1st quartile, or lower 25%, of all Texas and national cities surveyed. Currently, AW's residential CAP bill is within this 1st quartile goal, ranking 3rd out of 36 cities surveyed, at the 8% level. This is an improvement of one rank higher when compared with the results of the 2018, 2019, and 2020 Affordability Metrics Report.

For our residential non-CAP average bills, AW's goal is to improve to below the 65th percentile of all Texas and national cities surveyed over the next five years. Currently, AW's average residential bill is at the 75th percentile, ranking 26th out of 36 cities surveyed. This is an improvement of one rank higher than the 2020 Affordability Metrics Report. Over the next five years, AW anticipates improvement within this benchmark given the projection of no rate increases over the next two years and with minimal rate increases in FY2024 and FY2026.

**AVERAGE MONTHLY BILL COMPARISON - COMBINED
RESIDENTIAL CLASS
Existing Rates - (5,800 Gallons Consumption and 4,000 Flows)**



Metric #4: Affordability Ratio (AR₂₀)

The Affordability Ratio 20 (AR₂₀) is one of the two benchmarks advanced in an American Water Works Association (AWWA) publication article written by Professor Manuel P. Teodoro. The title of the article is: Measuring Household Affordability for Water and Sewer Utilities, Journal AWWA, January 2018. The article provides a rationale for measuring the affordability of water and wastewater costs based on the impact on low-income households.

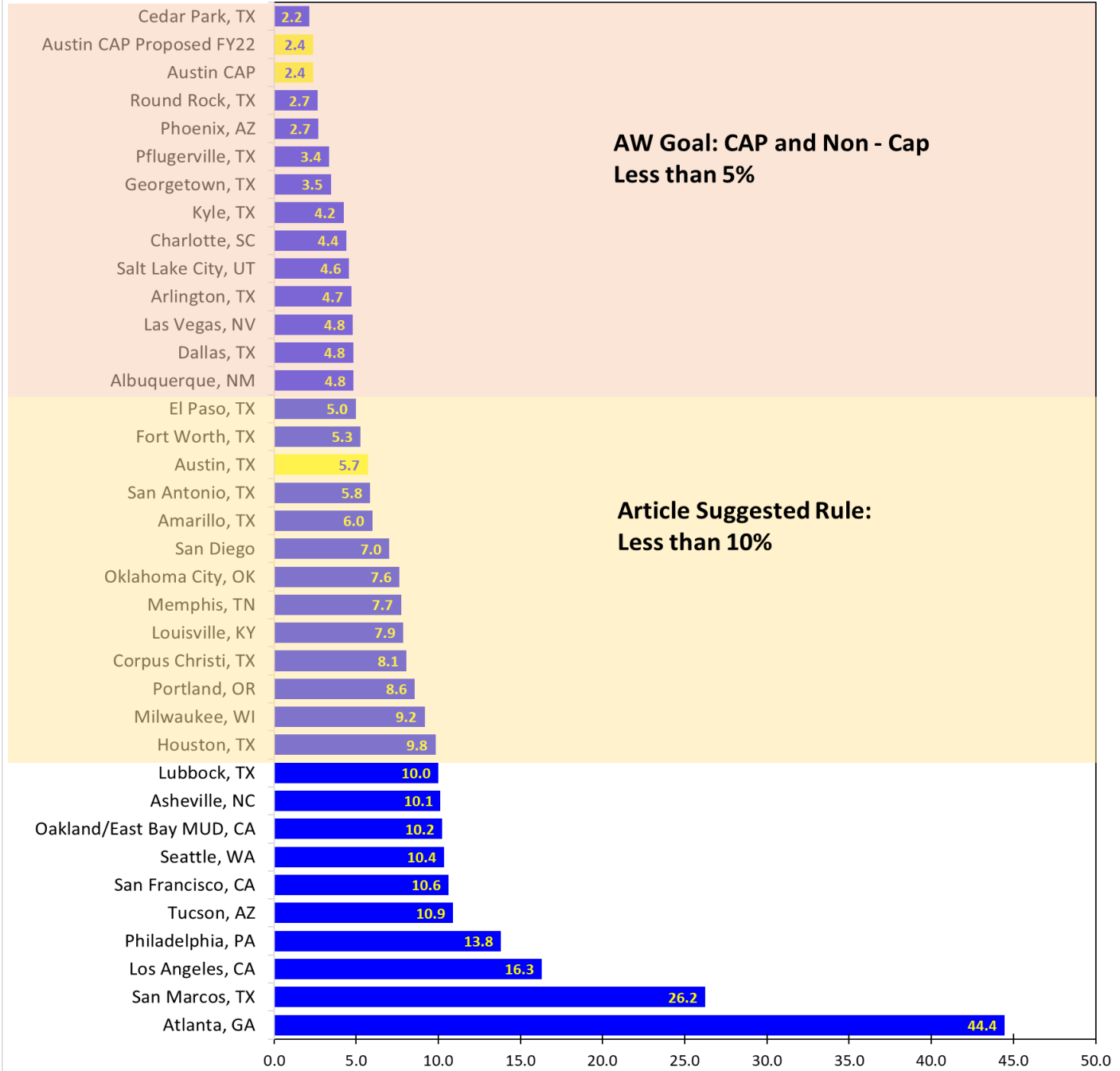
The AR₂₀ metric measures the ability of low-income customers to pay for basic water and wastewater services after paying for other essential costs such as food and housing. The focus is on low-income customers who are at the 20th percentile of household income, as opposed to looking at customers at the higher median household income. These low-income customers represent the most vulnerable households in which affordability of water and wastewater services is critical. The level of household water and wastewater use for this benchmark is for basic health and sanitation needs, represented by 4,000 gallons of water consumption and 4,000 gallons of wastewater discharge per month. This focus on lower volume needs is more representative of the basic water needs of low-income customers. This benchmark is generally easy to update each year through calculation of bills at the current rates. The estimation of each city's essential costs, other than water and wastewater services, is difficult to update annually and requires the services of Professor Manny P. Teodoro to provide data for the updates.

Professor Manny P. Teodoro has suggested a rule of thumb of less than 10% of remaining income, after paying for other essential costs, would be needed to pay for basic water and wastewater services. AW's goal is set at an even more affordable 5% goal for average residential CAP and Non-CAP customers.

Currently, for the AW residential CAP customers, the bill for basic water needs for low-income customers is only 2.4% of the remaining income after paying for other essential costs, and the lowest of any major Texas city surveyed. The results of FY2021 are expected to continue for FY2022 at 2.4% which continues residential CAP customer bills as the 2nd lowest of all cities surveyed, which is an improvement of one ranking from the 2020 Affordability Metrics Report.

For residential Non-CAP customers, bills for basic water needs for low-income customers are 5.7% of the remaining income after paying for other essential costs, which is above AW's goal of 5.0%, but well below the article recommended 10%. The 2018, 2019, and 2020 Affordability Metrics Report showed Austin was at 5.0% or below. According to Professor Manny P. Teodoro, "The significant increase AR₂₀ value is driven mainly by a sharp increase in non-water/sewer essential expenditures. The costs of living in Austin apparently is increasing very rapidly – especially for low income households."

**Basic Water and Wastewater Services
Affordability Ratio 20 (AR₂₀)
Existing Rates - (4,000 Gallons Consumption and 4,000 Gallons Flows)**



Metric #5: Hours Minimum Wage

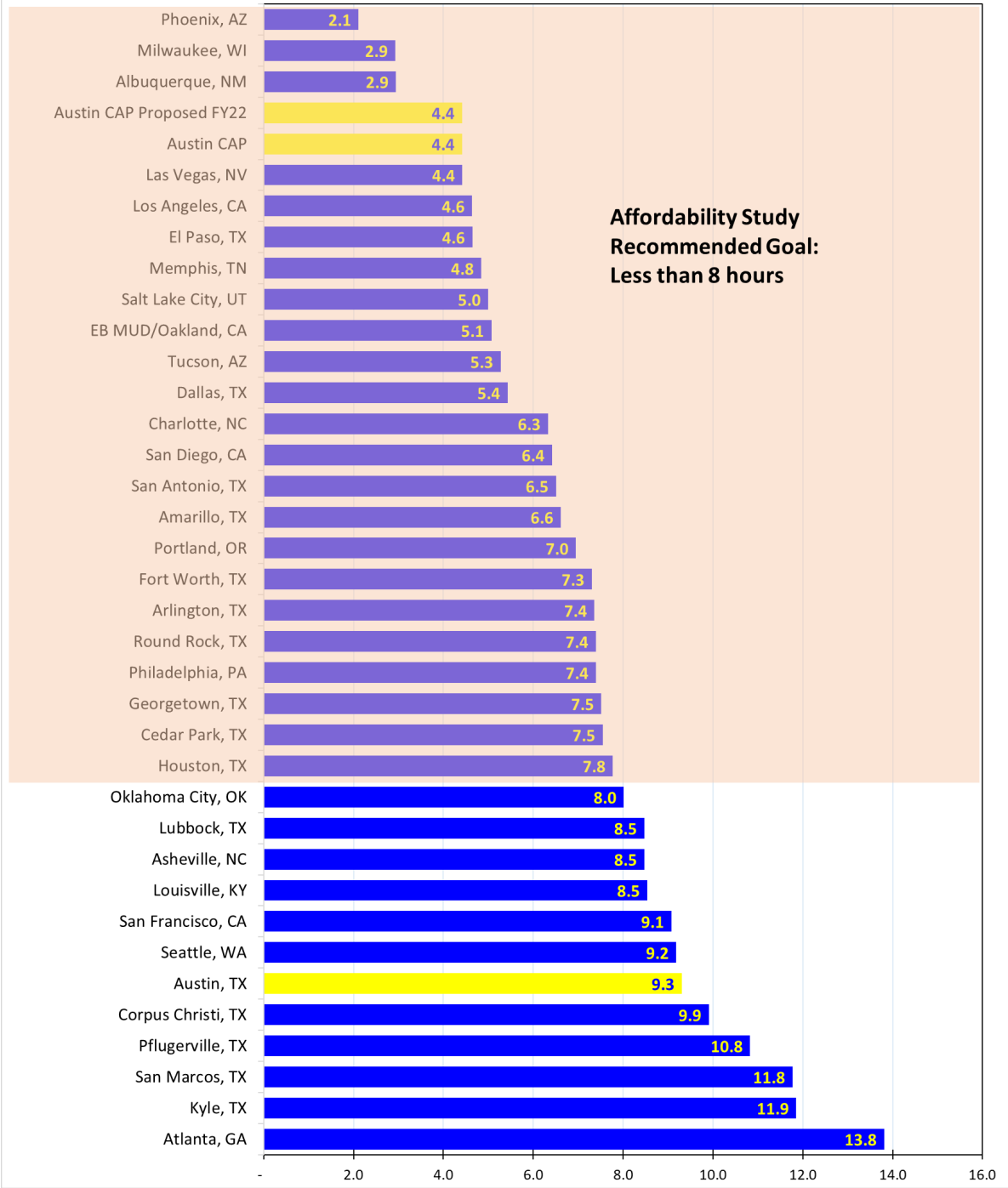
The Hours Minimum Wage (HM) is one of the two benchmarks advanced in an American Water Works Association (AWWA) publication of an article written by Professor Manuel P. Teodoro. The title of the article is: Measuring Household Affordability for Water and Sewer Utilities, Journal AWWA, January 2018. The article provides a rationale for measuring the affordability of water and wastewater costs based on the impact on low-income households.

The HM simply takes a combined water and wastewater bill calculated with 4,000 gallons of water consumption and 4,000 gallons of wastewater flow monthly (to represent consumption for health and satiation) for each utility and divides it by the minimum wage per hour in each community. This indicates how many hours a person must work at minimum wage (ignoring taxes) in order to pay for the combined water and wastewater bill at 4,000 gallons. In his article, Professor Teodoro suggested a HM of less than 8 hours as an affordability rule-of-thumb. The intuition behind this threshold is that not one person should have to work for longer than one standard workday at minimum wage in order to afford their combined water and wastewater bill.

The Hours Minimum Wage benchmark is generally easy to calculate given the availability of information on minimum wage and the ease of calculating bills for basic service. However, this benchmark is not widely used in the industry. Additionally, the minimum wage has historically remained relatively constant over longer periods of time, making the results of this benchmark likely to trend higher as bills rise. AW contracted with Professor Manny P. Teodoro who provided the data for the Hours Minimum Wage updates.

Austin Water's HM for a typical residential Non-CAP customer bill for basic water and wastewater services is at 9.3 hours which is slightly above the suggested 8-hour goal. This is consistent with the 2018, 2019, and 2020 Affordability Metrics Report. Austin Water's residential CAP bill is at 4.4 hours, an improvement from 4.9 hours in 2020. For FY2022, AW's residential CAP customer average bills is expected to remain at 4.4 hours and the 4th lowest ranking of 36 cities surveyed.

**Hours Minimum Wage to Pay for Basic
Water and Wastewater Services
Existing Rates - (4,000 Gallons Consumption and 4,000 Flows)**



Metric #6: Average Annual Bill as % of Median Household Income

The average residential water and wastewater bill calculation uses the most recent 2019 MHI data with an inflation factor for each succeeding year to determine the 2021 annual water and wastewater costs to compare with each cities' median household income. DataUSA¹ is the source of the median household income for each of the cities from 2013 to 2018. AW has restated the 2013 to 2018 MHI using information from DataUSA, which is an easy to use platform that will display specific data for numerous cities. However, DataUSA experienced COVID-19 impacts which delayed updating their website with 2019 data, as such AW utilized CensusReporter.org for 2019 MHI data. The American Community Survey is the source for both DataUSA and Census Reporter.

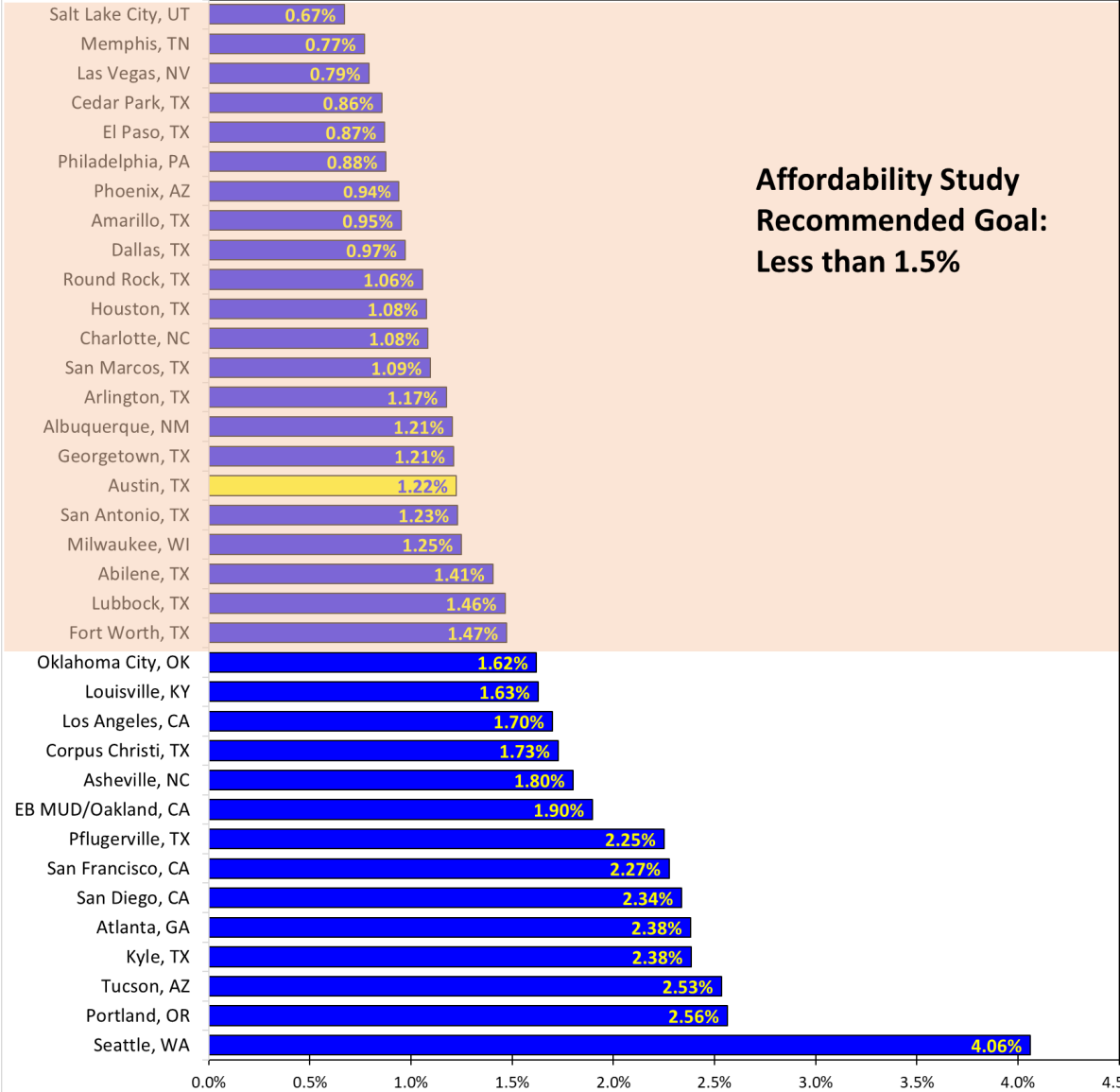
The percentage of MHI benchmark is commonly used within the water industry, in part because it is relatively easy to calculate. However, there are concerns over the use of this benchmark and how well it measures affordability. First, there are issues with the arbitrary nature of setting standards or goals. An often-used standard has been 2.0% or 2.5% of MHI based on US EPA guidelines to determine a community's ability to pay for capital projects. The use of this benchmark assumes that if a water or wastewater bill is below the 2.0% standard, then it is "affordable", and if the bill is above the standard, it is "unaffordable". There are some utilities that use the standard 2.0% for water and then add another 2% for wastewater, for a combined 4.0%. Second, there are concerns with how income varies within different cities. There can be significant differences between high and low-income households that are obscured by the reliance on MHI. This may cause reliance on MHI to be a poor indicator of affordability, especially for low income households.

Austin Water currently has a Key Performance Indicator (KPI) included in the FY2021 Approved Budget of total water and wastewater residential annual bills as a percentage of MHI with a goal of below 1.5%.

Austin Water residential average annual water and wastewater bills as a percentage of MHI are lower than most major Texas cities which includes Abilene, Corpus Christi, Fort Worth, Kyle, Lubbock, Pflugerville and San Antonio. For an average residential customer of Austin Water having a median household income, they would spend 1.22% of their annual income on water and wastewater bills. Austin Water average residential customer annual bills as a percent of MHI are ranked 17th out of the 36 Texas and national cities surveyed, which is an increase in one ranking from the 2020 Affordability Metrics Report. The increase in ranking is due to AW's affordability efforts and keeping rates at the same level for FY2021 and estimated median household income increasing to higher levels.

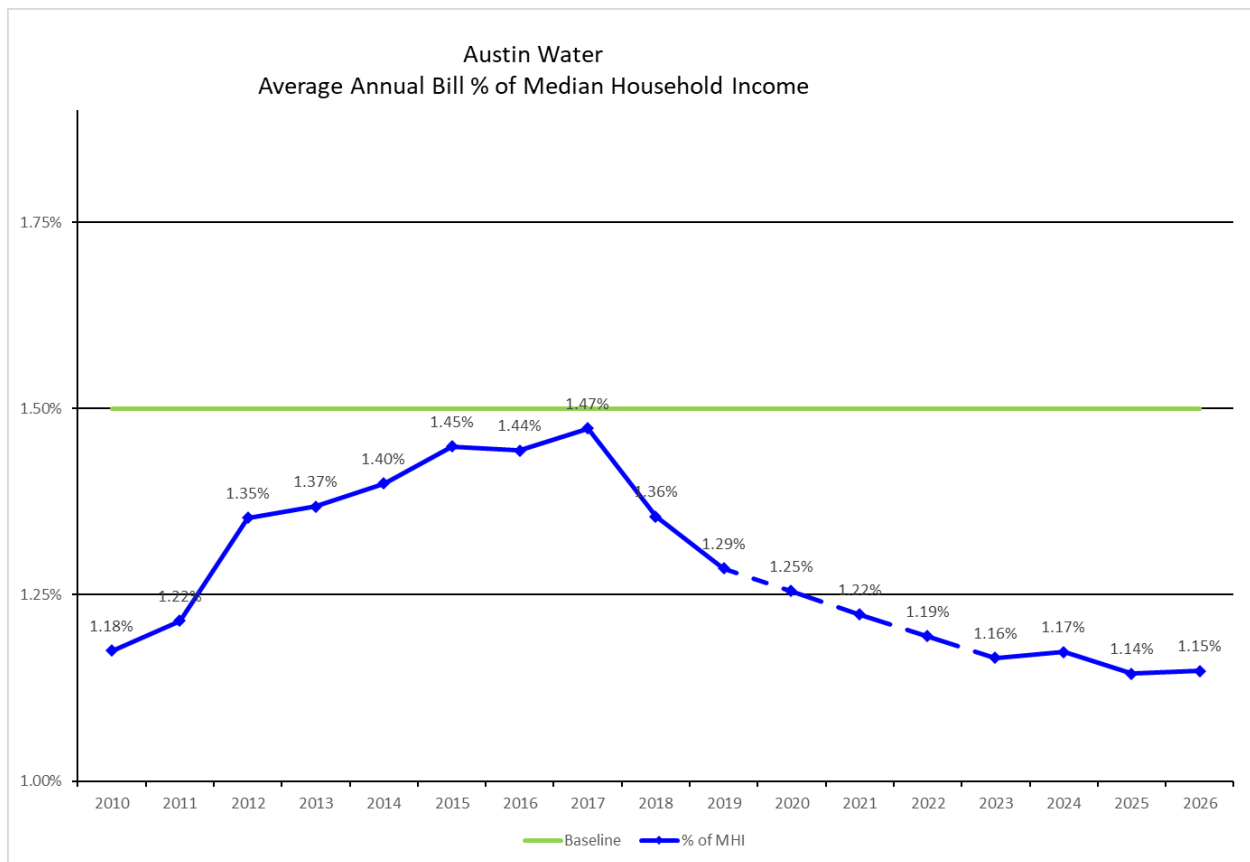
¹ <https://datausa.io/profile/geo/austin-tx/>

**Water and Wastewater Bill as a Percent of Median Household Income
RESIDENTIAL CLASS
(Austin Average Consumption and Flows)**



Metric #7: Average Historical Annual Bill as % of Median Household Income

This metric provides a historical look at Austin Water's average customer annual water and wastewater bills as a percent of MHI. Austin Water has set a goal that our average customer's annual water and wastewater bills represents less than 1.5% of the median household income. Austin Water forecasts that it will continue to achieve the 1.5% goal. Further, Austin Water forecasts a downward trend for this benchmark. This is due primarily to no rate increases in FY2019, FY2020, FY2021, and no projected rate increases in FY2022, FY2023, and FY2025, with minimal rate increases projected in FY2024 and FY2026.



Source: DataUSA is the source of the median household income (MHI) data for each of the cities for 2013 to 2018[1]. However, DataUSA experienced COVID-19 impacts which delayed updating their website with 2019 data, as such AW utilized CensusReporter.org for 2019 MHI data. Austin Water's MHI data has been restated from 2013 to 2018 using DataUSA. The 2010-2012 MHI is using data from the Census Reporter.

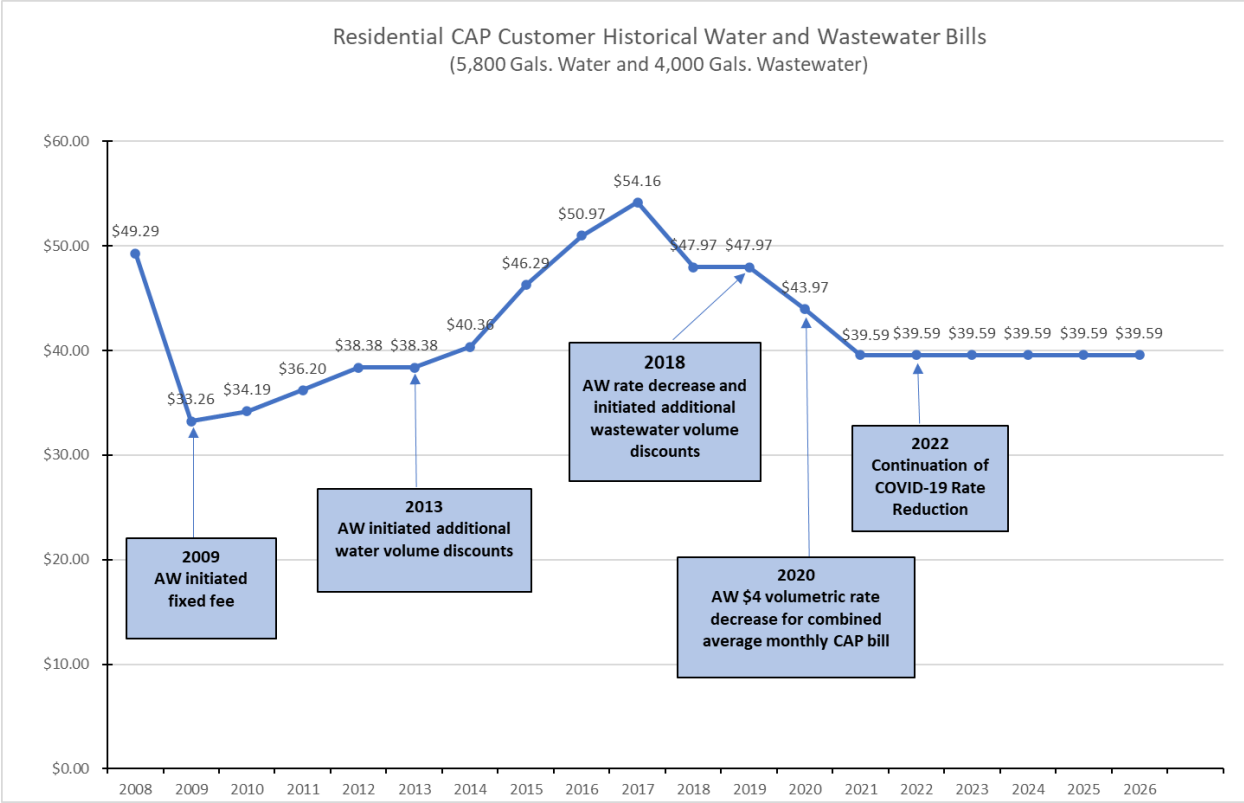
Metric #8: Residential CAP Customer Historical Average Bill

AW's rate structure reflects both Austin's environmental and social equity and values. The utility's residential Customer Assistance Program (CAP) is an example of its commitment to social equity. In this metric, the historical residential CAP customer water and wastewater bills are presented. The residential CAP program was initiated in 2009. The chart reflects enhancements in the residential CAP program over the years.

For example, at the beginning of the program, AW provided residential CAP customers a waiver of their fixed charges. This provided an average 43% discount on their bills.

In 2013, AW provided additional discounts for not only residential CAP customers' fixed charges, but also a water volumetric rate discount. Then, in 2018, Austin Water provided an average 4.8% water and wastewater rate reduction for all retail customers including residential CAP, along with the addition of a new wastewater volumetric rate discount for residential CAP customers.

During the FY2021 budget, AW continued the reduced residential CAP water rates for tiers 1-3 and residential CAP wastewater rates for tiers 1 and 2 to continue assisting individuals experiencing financial hardship due to the COVID-19 pandemic. These reductions are proposed to continue through FY2022, which will continue to improve the benchmark as compared to the results of the 2020 Affordability Metrics Report.



*Fiscal years 2023-2026 rates are subject to change and are shown on graph for illustration purposes only. Minimal rate increases in FY2024 and FY2026 are not reflected in the graph.

Metric #9: High Volume Residential Bill Comparison

This metric provides the high-volume residential bill comparison using 10,000 gallons water and 5,000 gallons wastewater discharge. Austin Water's residential rate structure is designed to provide higher costs for higher volume use. At these high-volume levels, Austin Water is less competitive with other cities than the average customer bill comparison results. At these high-volume levels, only one central Texas city, Kyle, is above Austin Water bills and the other major Texas cities are all below Austin Water bills.

For our residential CAP customer bills at the high-volume levels, the goal is to be below the 50th percentile. Currently, AW's residential CAP customers are ranked 7th out of 36 cities surveyed, which is just below the 50% level. This is an improvement compared to the results of the 2020 Affordability Metrics Report where AW rank was 9th. For the residential CAP customer bills at these high volumes, Austin Water residential CAP customers are higher than some major Texas cities, except Houston, Dallas, and Fort Worth. At these high-volume levels, the CAP residential bill is 49% of the non-CAP Austin Water customer bill. This represents a discount of 51% on bills for our most vulnerable low-income residential CAP customers using these higher volumes. The discount provided is a waiver of all fixed fees and a discounted volumetric rate per 1,000 gallons for blocks 1 through 4, with only the block 5 rate for residential CAP customers being the same as the rate for non-CAP residential customers.

For our residential non-CAP average bills, AW's goal is to be below the 75th percentile of all Texas and national cities surveyed over the next five years. Currently, Austin Water's average residential bill is slightly above the 75th percentile, ranking 29th out of 36 cities surveyed. This is an improvement in ranking from the 2020 Affordability Metrics Report. Over the next five years, Austin Water anticipates continued improvement within this benchmark given the projection of no rate increases in FY2022, FY2023, and FY2025 with minimal rate increases projected in FY2024 and FY2026.

**AVERAGE MONTHLY BILL COMPARISON - COMBINED
RESIDENTIAL CLASS
Existing Rates - (10,000 Gallons Consumption and 5,000 Flows)**

