

2019

Arizona

Water & Wastewater Rates
Executive Summary



SCHOOL OF GOVERNMENT
Environmental Finance Center



**WATER
INFRASTRUCTURE**
FINANCE AUTHORITY
OF ARIZONA

ABOUT THIS REPORT

This report is one resource in a series on Arizona water and wastewater rates, funded by WIFA. The survey has been conducted in 2014, 2015, 2017, and 2019, providing a wealth of valuable rates data.

In addition to this report, there is an accompanying set of [tables](#) and standardized water and wastewater [rate sheets](#) for each participating utility. Furthermore, with the online, interactive [Rates Dashboard](#), users can compare utilities using several attributes such as geographic location, system characteristics, and customer demographics, as well as financial indicators and benchmarks. In addition, this year's dashboard includes a **new “download data” feature**, allowing users to download all of the data feeding the dashboard and the comparison group they have selected.

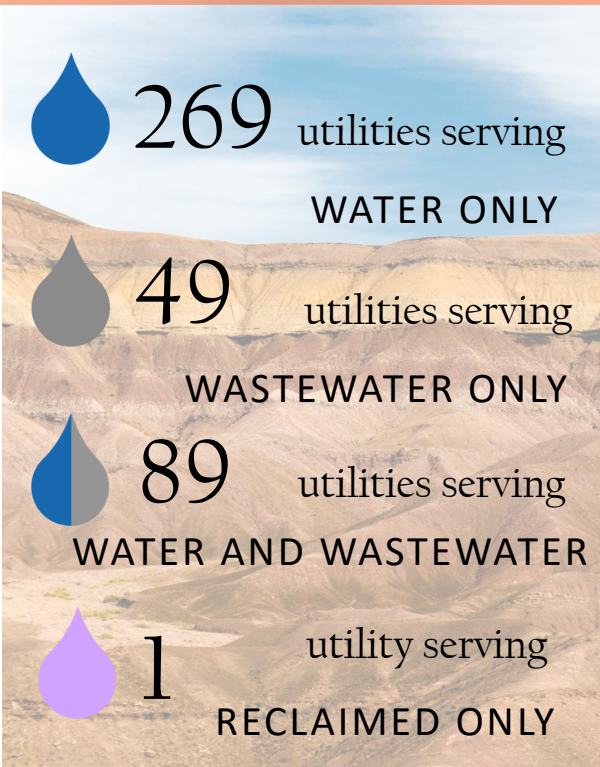


ABOUT THE SURVEY

A total of 408 utilities participated by providing their rate schedules, yielding a response rate of 96% of utilities. The survey includes 451 rate structures.

Adequate water and wastewater rate-setting is one of a utility's most important environmental and public health responsibilities. This report aims to provide utility professionals and public officials with an up-to-date, detailed survey of current statewide rate structures and trends, and thus assist in the protection of public health, improvement of economic development, and promotion of resource sustainability in Arizona.

UTILITIES IN THE SURVEY



19%
MUNICIPALITIES

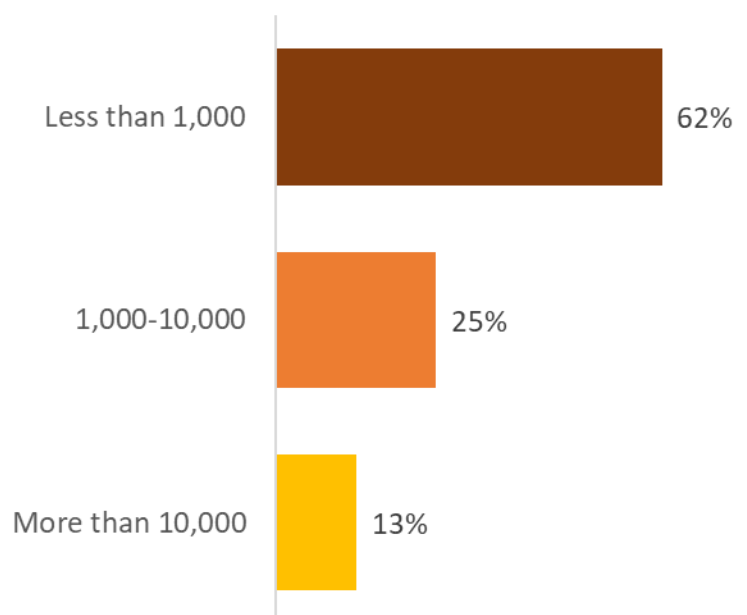
16%
DOMESTIC WATER
IMPROVEMENT
DISTRICTS

55%
FOR-PROFITS

10%
OTHER*

*Other includes Counties/Districts, Not-For-Profit, and Sanitary District Utilities

Distribution of Population Served by 451 Rate Structures in the 2019 Survey Group



WHAT ARE UTILITIES CHARGING?

Arizona's Bills

Median

Average

WATER AT 7,500 GALLONS/MONTH

\$43.24

MONTH

\$518.88

YEAR



\$48.18

MONTH

\$578.16

YEAR

WASTEWATER AT 7,500 GALLONS/MONTH

\$38.69

MONTH

\$464.28

YEAR



\$41.60

MONTH

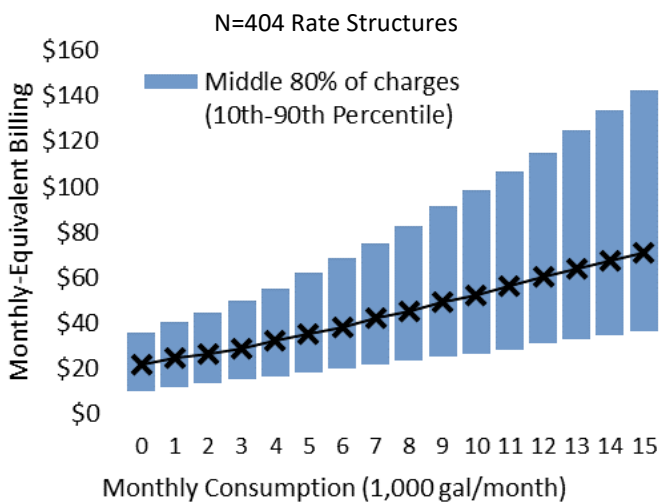
\$499.20

YEAR

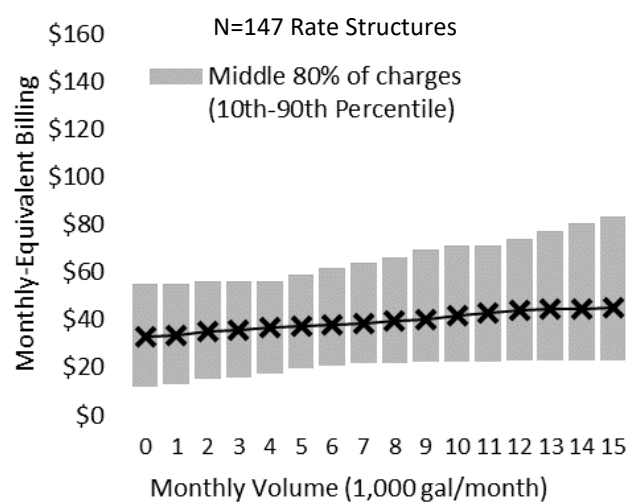
RANGE OF BILLS

While reporting the median bill is helpful for understanding the “big picture” for water and wastewater bills, it does not show the total distribution of bills, including the lowest and highest costs at different consumption levels. The graphs below show the range of the middle 80% of bills (from the 10th percentile to the 90th percentile) for 0 to 15,000 gallons.

Spread of Middle 80% of Water Bills



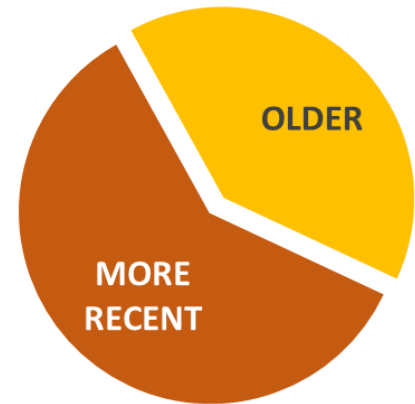
Spread of Middle 80% of Wastewater Bills



As volume increases, the median water bill tends to rise at a *greater rate* than the median wastewater bill.

WHEN WERE RATES LAST CHANGED?

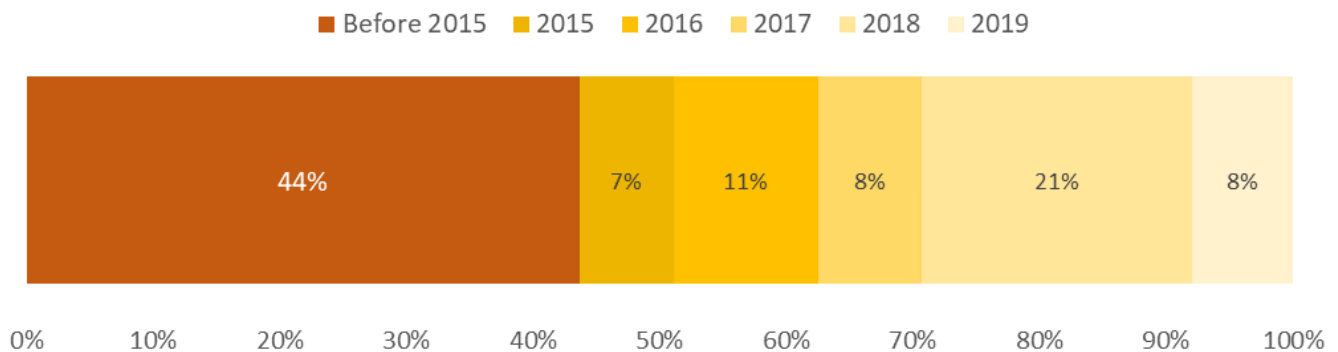
- The **MAJORITY** of utilities have updated rates since **AT LEAST 2015**.
- About **2 in 5** utilities have not updated their rates in the last **FIVE** years.



In Arizona, **most utilities** are actively evaluating and modifying their rate structures every three to four years. The EFC recommends that utilities review their rates regularly to keep in pace with inflation. An annual or biennial review gives utilities the opportunity to evaluate if their current rates are enough to cover the necessary operating expenses and depreciation, not to mention savings goals for capital planning, emergencies, or other funds.

As many utilities in Arizona are regulated, raising rates is often a more time-consuming and costly process, but should be prioritized if the review suggests revenues are not covering costs, or may fail to cover costs in the near term.

The calendar year when sampled rate structures were first put into effect is shown below for 423 rate structures.*



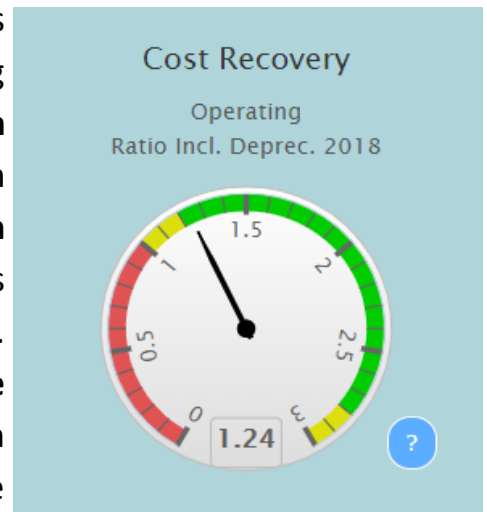
*The year that rates became effective is known for 423 out of the 451 rate structures in the survey.

ARE REVENUES COVERING COSTS?

Financial information was collected for all utilities that provided it during the survey process. **285 utilities (70%)** provided financial data that is available on the dashboard and for this report. In addition, for all of the Domestic Water Improvement Districts that provided information on tax-based revenues, that information is included in the 2019 dashboard.

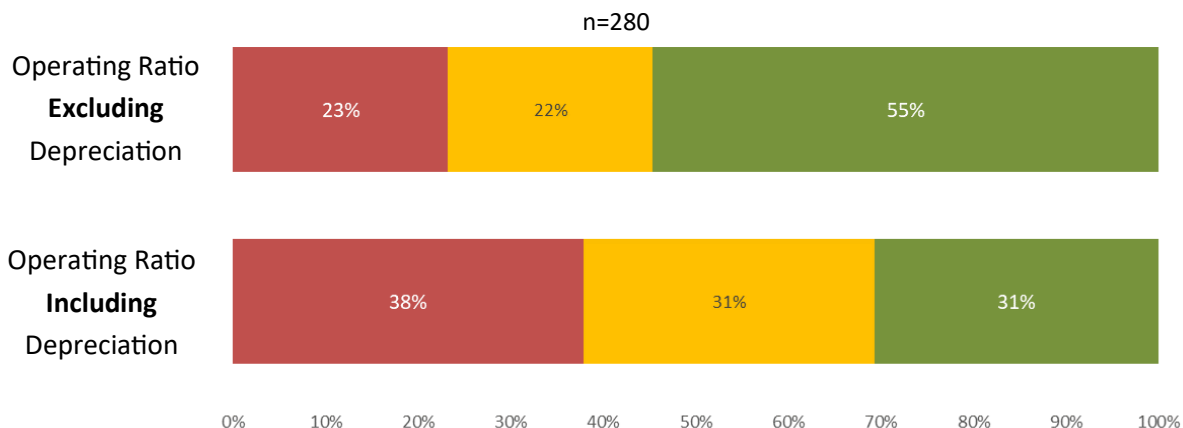
When assessing financial condition, the most common indicator is a utility’s operating ratio including depreciation. This is reflected by the “cost recovery” dial on the dashboard. A screenshot of the dial can be seen below.

The stop-light color coding of the cost recovery dial is intended to provide a visual cue. If costs (including depreciation) exceed revenues, or a cost recovery of **less than 1**, the dial is red. This is an indicator of concerns for long-term sustainability. A cost recovery between **1-1.2** is shown in **yellow**, indicating that addressing long-term capital needs might be challenging given the ratio of revenues to expenses. A cost recovery of **greater than 1.2** is shown in **green on the dial**, indicating utilities are probably recovering enough revenue to meet day to day expenses and plan for future capital needs.



It is important to note that the cost recovery dial is just a snapshot of utility’s finances. A more in depth rates analysis can help determine the right rates to cover the full cost of service. The graph below shows the operating ratios of utilities that provided financial information for the 2019 survey.

Percent of Responding Utilities with Operating Ratios in the “Red,” “Yellow,” and “Green”



62% of Responding Utilities have a Cost Recovery of at least 1.0

WHAT ABOUT RECLAIMED AND STORMWATER?

Reclaimed Water Bills

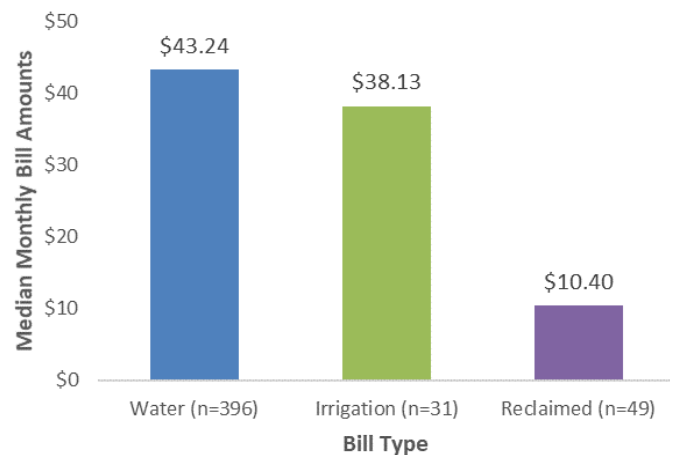
In Arizona, utilities will sometimes have specific rates for customers using reclaimed water, commonly known for being distributed in the “purple pipe.” Reclaimed water is treated wastewater. Instead of discharging this treated effluent, the reclaimed water is sold and used for agricultural, landscaping, and commercial purposes. In January 2018, Arizona Legislature began moving towards potable use of reclaimed water by [updating the recycled water rule](#).

The 2019 survey included 50 commercial inside reclaimed rate structures, and 49 residential inside reclaimed rate structures. Very few utilities had specific outside reclaimed rates. The graph to the right shows the **median monthly reclaimed bill at 7,500 gallons relative to the respective water or irrigation bill**.

At 7,500 gallons, the median monthly **reclaimed bill** is *much cheaper* than the median **water** or **irrigation** bill in Arizona.

Median Monthly Bill Amount at 7,500 Gallons

Bills are for Residential Customers Inside Service Areas



Stormwater

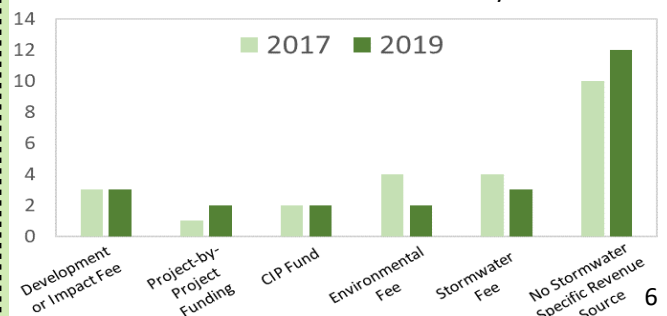
As part of the 2019 rates survey, data was collected on stormwater permits and funding sources in Arizona. The Arizona Department of Environmental Quality has identified 8 Phase I, or medium to large, municipal separate storm sewer systems (MS4) permit holders and 48 Phase II, or small, MS4 permit holders. The survey also investigated the funding sources for 41 permit holders. The table to the right displays that distribution.

24 permit holders had funding sources documented in both 2017 and 2019. of those, **13 out of 24 (54%) did not change funding sources between surveys**.

2019 Funding Sources for Stormwater Management Programs

Development or Impact Fee	7
Project-by-Project Funding	4
Capital Improvement Plan Fund	4
Environmental Fee	4
Stormwater Fee	4
No Stormwater Specific Revenue Source	18

Distribution of Funding Sources for 24 Programs Present in both the 2017 and 2019 Surveys



FURTHER RESOURCES

All of the following free resources are available at:

<https://efc.sog.unc.edu/project/arizona-water-and-wastewater-rates-and-rate-structures>

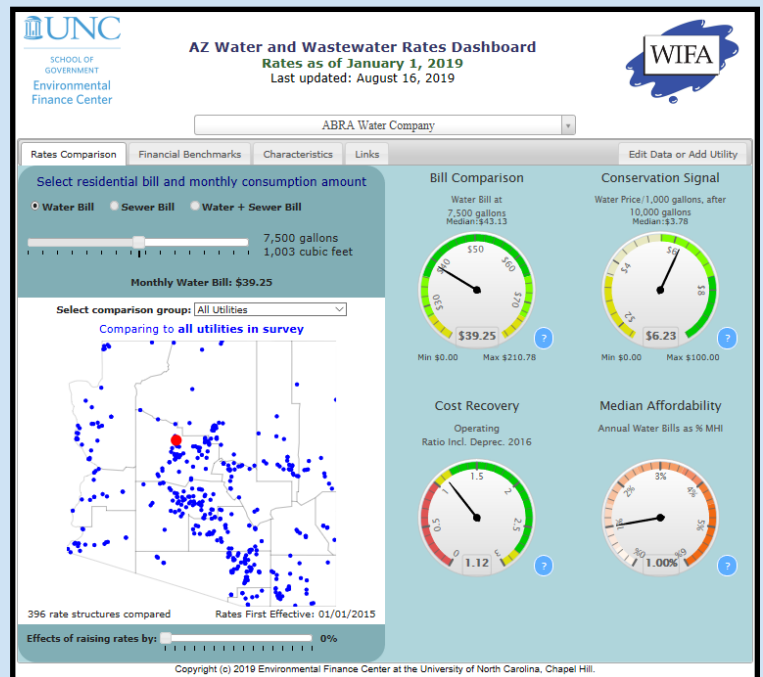
⇒ [2019 Water and Wastewater Rates Dashboard](#)

⇒ A NEW **“Download Data”** feature on the

dashboard that allows users to download all of the data populating the dashboard for their selected utility, and data on the selected

⇒ Downloadable **tables of rates** and rate structures for residential, commercial, reclaimed, and irrigation customer classes for water and wastewater

⇒ Standardized copies of **rate sheets** for all utilities in the survey



QUESTIONS? FEEDBACK?



Richard Mendolia
rmendolia@azwifa.gov
(602) 364-1321



Annalee Harkins
aharkins@unc.edu
(919) 843-4958

ACKNOWLEDGMENTS

The Environmental Finance Center would like to thank WIFA and all of the systems that participated in this year's survey. The EFC would especially like to thank all of the systems that provided financial data and thus allowed for a more complete survey with a greater depth of information.

The water and wastewater rates surveys have been conducted regularly in Arizona since 2014. The EFC would like to thank all partners involved over the course of the rates survey for their contributions in allowing this project to continue over the years.

CONTRIBUTORS TO THE REPORT

WIFA

Richard Mendolia, *Environmental Program Manager*

The Environmental Finance Center at UNC Chapel Hill:

Annalee Harkins, *Data Specialist & Project Manager*, **Austin Thompson**, *Project Director*, **Andrea Kopaskie**, *Rates Specialist*, **Helen Drotor**, *Rates Specialist*, **Ashely Bleggi**, *Rates Specialist*, **Claudia Flores**, *Project Coordinator*, **Samantha Haughton**, *Student Data Analyst*, **Brett Wells**, *Student Data Analyst*, **Elizabeth Kendrick**, *Student Data Analyst*

Images courtesy of Creative Commons and Pexel



SCHOOL OF GOVERNMENT
Environmental Finance Center



**WATER
INFRASTRUCTURE
FINANCE AUTHORITY
OF ARIZONA**