

Water and Wastewater Utility Bill Comparisons April 2019



City of Phoenix

**Prepared in conjunction by the Water and
Finance Departments**

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April 2019

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INTRODUCTION

The City of Phoenix annually calculates the Water and Wastewater utility bill amounts for a typical single-family customer to compare the bill amounts to prior years. Additional comparisons are made against six other Phoenix Metro cities; nine other Southwest Region cities and then the other nineteen largest populated cities in the United States (according to the 2010 Census). In total, twenty-nine cities, including Phoenix, are studied. This report illustrates the findings.

The cities studied are:

- Albuquerque, NM *SW*
- Austin, TX *20, SW*
- Chandler, AZ *PM*
- Charlotte, NC *20*
- Chicago, IL *20*
- Columbus, OH *20*
- Dallas, TX *20, SW*
- Detroit, MI *20*
- El Paso, TX *20*
- Fort Worth, TX *20, SW*
- Glendale, AZ *PM*
- Houston, TX *20*
- Indianapolis, IN *20*
- Jacksonville, FL *20*
- Los Angeles, CA *20*
- Memphis, TN *20*
- Mesa, AZ *PM*
- New York, NY *20*
- Oklahoma City, OK *SW*
- Peoria, AZ *PM*
- Phoenix, AZ *20, SW, PM*
- Philadelphia, PA *20*
- San Antonio, TX *20, SW*
- San Diego, CA *20, SW*
- San Francisco, CA *20*
- San Jose, CA *20, SW*
- Scottsdale, AZ *PM*
- Tempe, AZ *PM*
- Tucson, AZ *SW*

This report provides general information on the City of Phoenix (“City”) water and wastewater systems, the water and wastewater rates, and an overview of the model used to develop the comparison. Tables and charts at the end of the report summarize the water and wastewater bills for a 5/8” metered typical single-family customer.

ORGANIZATION and ADMINISTRATION

Phoenix is the fifth largest city in the U.S. and the largest city of the southwest region and metropolitan survey cities with an estimated population of 1,626,078. The City water and wastewater systems operate as a financially self-supporting municipal utility service. The systems are organized as separate functional divisions in the City's Water Services Department (“Department”). The Department’s authority and responsibility are derived from the Phoenix City Charter and City Council adopted ordinances and resolutions. The Water Services Director reports to a Deputy City Manager. The four Assistant Water Services Directors for Administration, Water, Wastewater and Technical Services report to the Water Services Director.

The Department prepares and submits the annual Operating and Capital Improvement Program budgets for the water and wastewater systems to City Management. After their review, the budgets are submitted to the City Council for adoption. Finally, the Council establishes the water and wastewater rate structures to meet those budget requirements.

Rate changes are usually implemented in the spring. The most recent rate adjustment occurred in March 2019.

The Financial Accounting and Reporting Division of the Finance Department is responsible for providing financial accounting and reporting services for the water and wastewater systems. The division reviews the accuracy of the billing services, and provides all financial reporting and financial information that allows management to make informed financial decisions. The division also provides financial and resource planning, and fee and rate development. In coordination with the Water Services Department, the annual financial plans to meet the Operating and Capital Improvement Program needs are developed.

WATER SYSTEM

General Background

The City water service area encompasses 543 square miles, both inside and outside the city corporate limits.

The 2010 United States Census set the City's population, and reflected a small decrease from the peak in 2007. Based on annual estimates, the data indicates that the population of the City increased during the period of 2010 to 2017 by 12.4% from 1,446,909 to 1,626,078. The number of points-of-service increased 4.7% for the same period. In addition, the number of active and billed points-of-service associated with housing units has increased 5.0% during the same period. This reflects an adjustment for a residual number of inactive points-of-service. This is one factor that helps explain the decrease in the annual billed one-hundred cubic feet ("ccf") per account ratio. The City billed 300.5 ccf per account in 2010 and 284.2 ccf in 2017. The decrease is also attributed to the impact of conservation efforts, periodically rainier and cooler than normal weather conditions, and economic factors associated with a moderately growing economy and changing development patterns.

During the month of June 2018, the City served 426,558 accounts, of which 375,763 (88%) of the accounts were single-family residential, 16,440 (4%) were multi-family residential, and 34,355 (8%) were non-residential. For fiscal year 2017-18, the System billed 123,488,638 units of retail water of which 61,958,898 units (50%) was to single-family residential accounts, 18,059,700 units (15%) to multi-family residential accounts, and 43,470,040 units (35%) to non-residential accounts.

The desert climate leads to seasonal patterns in water consumption. Temperatures fluctuate greatly during the course of the year. Based on weather conditions over the last thirty years, the average maximum temperature during the month of July is 106.0 degrees, 104.2 degrees in August, but only 67.7 degrees in January and 71.8 degrees in February. Rainfall also affects consumption and varies during the year. The rainiest months of the year are July, August and January when the average rainfall equals more than 0.75 inch, but in May and June, it is virtually nonexistent. The long-term annual average rainfall is 7.6 inches.

Water System Facilities

Raw water is processed at five treatment facilities located adjacent to the Central Arizona Project (CAP) Hayden-Rhodes Aqueduct and various Salt River Project canals downstream of the Granite Reef Dam and at the confluence of the Verde and Salt Rivers. The treatment capacity in million gallons per day (mgd) of the plants, including active well capacity, is indicated below:

<u>Water System Facilities</u>	<u>Treatment Capacity</u>
Lake Pleasant	80
Union Hills Plant	160
24 th Street Plant	140
Deer Valley Plant	100
Val Vista Plant (1)	130
Groundwater (2)	<u>36</u>
Total	646

- (1) The Val Vista Water Treatment Plant is jointly owned by the cities of Phoenix and Mesa with a total capacity of 220 mgd of which Phoenix owns 130 mgd.
- (2) Out of 52 groundwater wells, there are 22 active wells that are in compliance with the Federal standards which took effect in 2006. The inactive wells will be returned to service as new treatment systems are completed.

The system also includes the Cave Creek Water Reclamation Plant (WRP) that went operational in December 2001. The plant provides additional water resources through the use of recycled wastewater for irrigation of turf facilities larger than five acres in the WRP service area and groundwater recharge in the northeast area of Phoenix. In addition to the water system facilities, the system maintains 500 million gallons of storage capacity for treated water in ground reservoirs and elevated tanks. The transmission and distribution system includes over 6,905 miles of water mains, ranging in size from 2” to 108” in diameter, 114 booster stations, 171 hydraulic control valves and 52,780 fire hydrants.

WATER RATE STRUCTURE

Water Charge

The City’s current water rate structure, implemented in June 1990, is a seasonal uniform rate structure with a monthly service charge that varies by the size of the meter. Included in the service charge to all accounts are 6 units (4,488 gallons) of water for the months of October through May and 10 units (7,480 gallons) of water for the months of June through September. A volume charge is applied for usage above that included in the service charge. There are three distinct rate seasons with the summer months of June through September having the highest rate and the winter months of December through March having the lowest rate. The spring and fall months of April, May, October and November have intermediate rates that transition customers between the high and low rate seasons. The high summer rates are designed to encourage water conservation in the peak demand period. Under this rate structure, excluding those customers with very low water consumption, customers will pay more during the summer months when rates are higher and less during the winter, spring and fall months when rates are lower.

Environmental Charge

An environmental charge, which is assessed to recover the annual cost of complying with environmental standards, was implemented on December 1, 1992. Revenues from this charge are used to cover all operation, maintenance, replacement, administrative and capital expenses necessary for water treatment processes and facilities to meet Federal, State and County environmental regulations.

Table 1 summarizes the water rate schedule for the City.

Table 1

WATER RATES SCHEDULE

Effective March 1, 2019

SERVICE CHARGE (1)

<u>Meter Size</u>	<u>Monthly</u>
5/8"	\$ 4.25
3/4"	5.56
1"	8.17
1-1/2"	14.72
2"	22.57
3"	40.88
4"	67.05
6"	132.46

USER AND OTHER CHARGES (2)

<u>Month</u>	<u>Per unit</u>
Low Months: Dec., Jan., Feb., Mar.	\$3.05
Med Months: Apr., May, Oct., Nov.	3.56
High Months: Jun., Jul., Aug., Sep.	3.90

ENVIRONMENTAL CHARGE (3)

	<u>Per unit</u>
Environmental Charge	\$0.56

Notes

1. The Service Charge is a monthly fee based on meter size. It includes 6 units of water for October through May and 10 units for June through September.
2. User and Other Charges are charged on the consumption in excess of the units included in the Service Charge and includes \$0.39 per unit for raw water.
3. The Environmental Charge is charged on the total number of units metered.
4. Users outside the boundaries of the City, except for service within the Town of Paradise Valley, are charged 150% of the applicable rate.
5. The above charges are subject to applicable sales taxes and surcharges.

WASTEWATER SYSTEM

General Background

The City wastewater service area encompasses 543 square miles. In addition to the City's other treatment facilities, the City operates and jointly owns the regional 91st Avenue Wastewater Treatment Plant (WWTP) with the cities of Glendale, Mesa, Scottsdale and Tempe. The service area of the combined systems, including Phoenix, is approximately 944 square miles, with a total population served of approximately 2,590,000. The other cities also operate treatment facilities within their service areas.

During the month of June 2018, the City served 414,907 accounts, of which 375,406 (90%) of the accounts were single-family residential, 16,668 (4%) were multi-family residential, and 22,833 (6%) were non-residential. For fiscal year 2017-18, the System billed 60,911,621 ccf of which 33,054,983 ccf (54%) was to single-family residential accounts, 12,837,170 ccf (21%) to multi-family residential accounts, and 15,019,467 ccf (25%) to non-residential accounts.

Wastewater System Facilities

The Phoenix system consists of two treatment facilities - the 23rd Avenue WWTP and the 91st Avenue WWTP. The 23rd Avenue WWTP has the capacity to treat 63.0 mgd. The 91st Avenue WWTP has the capacity to treat 230.0 mgd of combined flow from the five participating cities. The City capacity share of the 91st Avenue WWTP is 112.8 mgd.

In addition to the WWTP's, the system also includes the Cave Creek Water Reclamation Plant (WRP) that has the capacity to treat 8.0 mgd. The plant provides additional water resources through the use of recycled wastewater for irrigation of turf facilities larger than five acres in the reclamation service area and groundwater recharge in the northeast area of Phoenix. The wastewater collection system uses more than 4,900 miles of sewer mains, ranging in size from 4" to 90" in diameter, 96,177 manholes and 8,351 cleanouts.

WASTEWATER RATE STRUCTURE

Sewer Service Charge

The City's wastewater (sewer) rate structure includes several customer classes with rates for each customer class based on the relative strength of the sewage discharge. The higher the customer class's sewage strength, the higher the rates. The strength based volume charges recover the operating costs. Costs related to billing and collection are recovered through a monthly service charge of \$1.00. A commercial inspection fee of \$19.53 is applied to customers with grease entrapment systems. There is a minimum charge of \$4.50 per billing per month for all customers.

Each customer's sewer service charges are calculated by applying the class rate to a percentage, Sewer Flow %, of the average January, February and March metered water consumption (JFM Average). Industrial customers and self-service laundries use a percentage of the actual month's water consumption. The percentage is set at eighty percent for the single-family customer and eighty-five percent for all other customers for the months a rate adjustment occurs through the end of June. In July, when each customer's JFM Average is updated, the Sewer Flow % is adjusted by the Sewer Flow Stabilization

Factor (SFSF). The SFSF adjusts the Sewer Flow % to off-set the year to year change in the JFM Average due to changes in weather conditions. This ensures a consistent level of revenue as the JFM Average will vary from year to year.

Environmental Charge

An environmental charge, which is assessed to recover the cost of complying with new environmental standards, was implemented on December 1, 1992. Revenues from the charge are used to cover all operation, maintenance, replacement, administrative and capital expenses necessary to meet Federal, State and County environmental regulations.

Table 2 summarizes the wastewater rate schedule for the City.

Table 2

WASTEWATER RATE SCHEDULE

Customer Class	Effective March 1, 2017				
	USER RATE	OTHER RATE	TOTAL RATE	ENVIRON. RATE	MONTHLY CHARGE
Residential	\$ 0.8708	\$ 1.6026	\$ 2.4734	\$ 0.5511	\$ 1.00
Commercial					
Without Dining	0.7655	1.4430	2.2085	0.5511	1.00
With Dining	0.9513	1.7110	2.6623	0.5511	20.53
Laundry - Self-service	0.7655	1.4430	2.2085	0.5511	20.53
Laundry - Commercial	1.5931	2.5686	4.1617	0.5511	20.53
Mortuaries	1.4238	2.2052	3.6290	0.5511	1.00
Restaurants & Bakeries					
Without Dining	1.8529	2.9483	4.8012	0.5511	20.53
With Dining	1.9622	3.1088	5.0710	0.5511	20.53
Public/Government					
Without Dining	0.7423	1.3881	2.1304	0.5511	1.00
With Dining	0.8897	1.6204	2.5101	0.5511	20.53
Industrial					
Charge per hundred cubic feet	0.3728	0.8804	1.2533	0.5511	1.00
Charge per pound of BOD *	0.2059	0.2481	0.4540		
Charge per pound of TSS **	0.1437	0.2606	0.4044		
* Biochemical Oxygen Demand					
** Total Suspended Solids					

OVERVIEW OF THE COMPARISON MODEL

The City began its rate comparison survey in 1992. Phoenix's comparison model includes water consumption/sewer flows by month, and calculates bills by meter size. The classes include single-family, multifamily, commercial, restaurants, car washes, and industrial. The purpose of comparing bills in this fashion is to show what a Phoenix customer's water and sewer bill would be if a Phoenix customer was subjected to the other city's rate structure, assuming that the customer does not change their monthly water consumption pattern. The reason for this approach is to account for varied rate structures in the comparison cities (i.e. fixed charges, block rates, seasonal rates, etc.). The surveyed cities were chosen based upon population size or geographic similarity to the City.

The City charges a separate environmental fee, in addition to the regular rate, to display the costs for greater water or wastewater treatment due to more stringent federal, state, and county regulations. If a utility does not have a separate environmental fee, the costs of the new treatment processes are within the regular rate. Therefore, for overall comparison purposes, the Phoenix non-environmental and environmental rates are totaled for one amount.

The model consists of numerous spreadsheets which are linked together to enable easy modification of the rates, rate structures and consumption pattern for each class to calculate the impact of a rate/rate structure on a customer's bill. Each year, the City obtains the water and wastewater rate schedules from the participating cities and updates the rates and/or rate structure. The treatment volume is based on the monthly water use for the City's median (50% use more, 50% use less) class user during the 1986-1994 period. This information is then used to calculate the monthly average bill for each city. Finally, the customer's bills are ranked into the various demographics.

The City calculated the annual average bills using the current rate schedules supplied by the participating cities and therefore, does not guarantee the accuracy of the information reported. The comparison excludes special discounts for early payment; City, state, and other taxes; and any surcharges.

COMPARISON TABLES AND CHART DESCRIPTIONS

Water Bill Comparison Summary (Table 3)

This report provides only the bill comparison for a single-family residential user with a 5/8" or 3/4" meter.

The monthly water consumption used in the single-family model is based upon the average of the 1986-1994 Phoenix median single-family accounts with a 5/8 inch meter.

The consumption amounts used in the comparison are as follows:

Single-Family Consumption in hundred cubic feet (ccf)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Annual
10	10	10	13	17	22	24	20	18	15	12	11	182

Wastewater Bill Comparison Summary (Table 4)

The model compares the monthly sewer bill for a single-family customer within the respective service area.

Cities bill their sewer customers by various methods, such as a fixed monthly charge, consumption based upon winter water consumption, a percentage of monthly water consumption and a combination of these. When water consumption is used to determine wastewater flows, the amount used in the model is 10 units, the 1986-1994 Phoenix median single-family account average of January, February and March water consumption.

Combined Water and Wastewater Bill Comparison Summary (Table 5)

The combined average monthly bill for Water and Wastewater fees, including the environmental fees, for all of the three geographical sections is also included.

Table 3

**WATER BILL COMPARISONS FOR SINGLE-FAMILY
Annual Average Monthly Bill ***

Alphabetical Order		Bill Amount Order	
City	Total Water Bill	City	Total Water Bill
Albuquerque, NM	\$38.25	San Francisco, CA	\$142.32
Austin, TX	113.88	San Diego, CA	118.51
Charlotte, NC	64.66	Austin, TX	113.88
Chandler, AZ	28.29	San Jose, CA	109.05
Chicago, IL	44.73	Los Angeles, CA	99.82
Columbus, OH	54.65	Tucson, AZ	78.66
Dallas, TX	48.75	Philadelphia, PA	72.83
Detroit, MI	44.78	Houston, TX	67.35
El Paso, TX	38.48	Charlotte, NC	64.66
Fort Worth, TX	52.87	Indianapolis, IN	64.40
Glendale, AZ	41.56	Mesa, AZ	59.67
Houston, TX	67.35	New York, NY	59.15
Indianapolis, IN	64.40	Columbus, OH	54.65
Jacksonville, FL	36.27	Oklahoma City, OK	54.47
Los Angeles, CA	99.82	Fort Worth, TX	52.87
Memphis, TN	29.01	Dallas, TX	48.75
Mesa, AZ	59.67	Detroit, MI	44.78
New York, NY	59.15	Chicago, IL	44.73
Oklahoma City, OK	54.47	Peoria, AZ	42.90
Peoria, AZ	42.90	Phoenix, AZ	41.69
Philadelphia, PA	72.83	Glendale, AZ	41.56
Phoenix, AZ	41.69	Scottsdale, AZ	40.40
San Antonio, TX	22.93	El Paso, TX	38.48
San Diego, CA	118.51	Albuquerque, NM	38.25
San Francisco, CA	142.32	Tempe, AZ	37.11
San Jose, CA	109.05	Jacksonville, FL	36.27
Scottsdale, AZ	40.40	Memphis, TN	29.01
Tempe, AZ	37.11	Chandler, AZ	28.29
Tucson, AZ	78.66	San Antonio, TX	22.93

* Based on rates in effect March, 2019.

Table 4

WASTEWATER BILL COMPARISONS FOR SINGLE-FAMILY
Annual Average Monthly Bill *

Alphabetical Order		Bill Amount Order	
City	Total Sewer Bill	City	Total Sewer Bill
Albuquerque, NM	\$17.20	San Francisco, CA	\$156.64
Austin, TX	66.66	Indianapolis, IN	92.84
Charlotte, NC	69.69	New York, NY	82.12
Chandler, AZ	27.32	Detroit, MI	78.91
Chicago, IL	39.05	Philadelphia, PA	78.07
Columbus, OH	67.19	Houston, TX	75.12
Dallas, TX	40.44	Charlotte, NC	69.69
Detroit, MI	78.91	Jacksonville, FL	68.42
El Paso, TX	24.84	Columbus, OH	67.19
Fort Worth, TX	42.05	Austin, TX	66.66
Glendale, AZ	33.42	Oklahoma City, OK	50.71
Houston, TX	75.12	San Diego, CA	47.54
Indianapolis, IN	92.84	Tucson, AZ	45.74
Jacksonville, FL	68.42	Fort Worth, TX	42.05
Los Angeles, CA	35.25	Dallas, TX	40.44
Memphis, TN	22.46	Chicago, IL	39.05
Mesa, AZ	28.56	San Jose, CA	38.90
New York, NY	82.12	San Antonio, TX	37.18
Oklahoma City, OK	50.71	Los Angeles, CA	35.25
Peoria, AZ	25.89	Glendale, AZ	33.42
Philadelphia, PA	78.07	Mesa, AZ	28.56
Phoenix, AZ	22.27	Chandler, AZ	27.32
San Antonio, TX	37.18	Peoria, AZ	25.89
San Diego, CA	47.54	El Paso, TX	24.84
San Francisco, CA	156.64	Memphis, TN	22.46
San Jose, CA	38.90	Phoenix, AZ	22.27
Scottsdale, AZ	19.54	Scottsdale, AZ	19.54
Tempe, AZ	18.71	Tempe, AZ	18.71
Tucson, AZ	45.74	Albuquerque, NM	17.20

* Based on rates in effect March, 2019.

Table 5

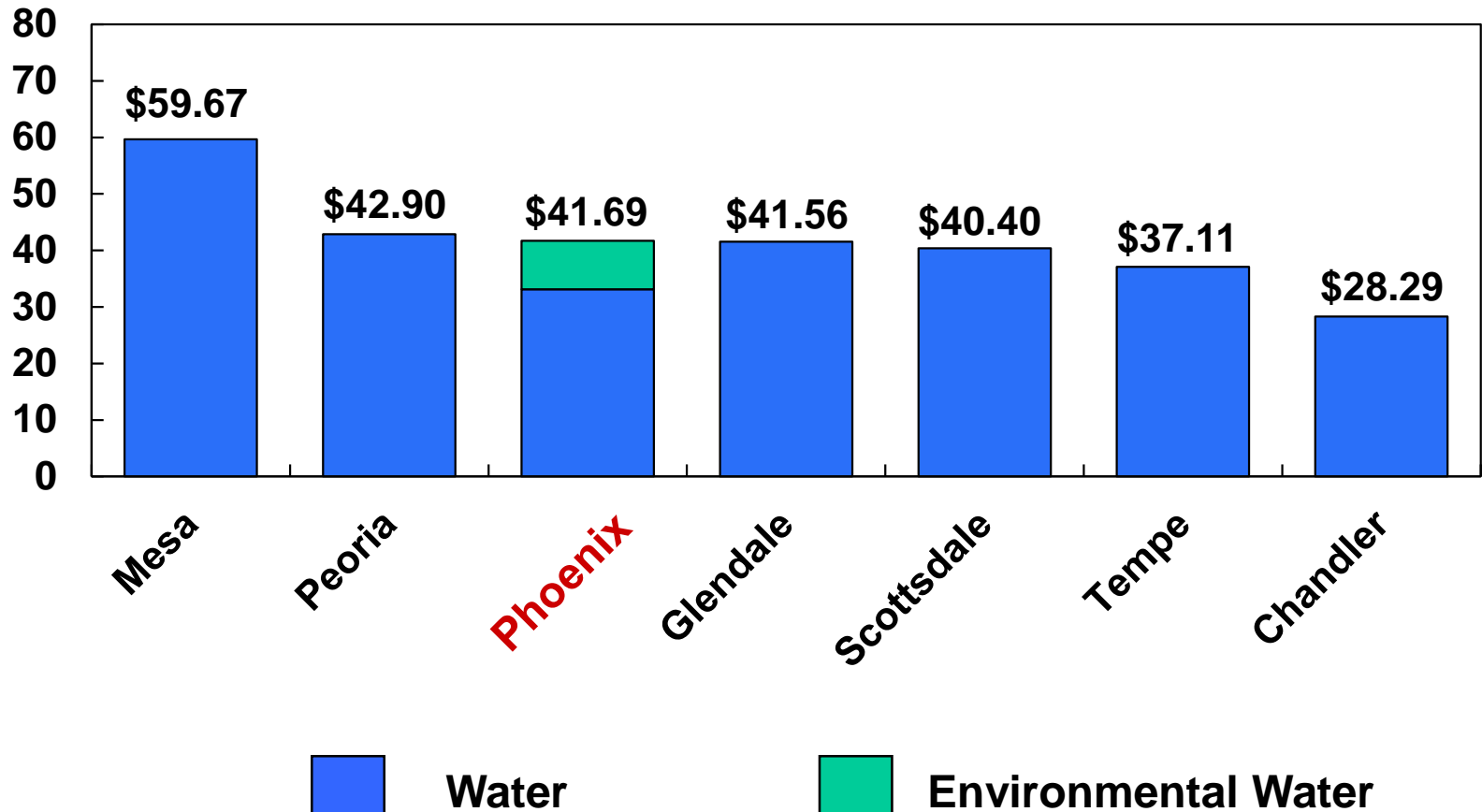
**WATER AND WASTEWATER BILL COMPARISONS FOR SINGLE-FAMILY
Annual Average Monthly Bill ***

Alphabetical Order			Bill Amount Order		
City	Total Water Bill	Total Sewer Bill	Total Bill	City	Total Bill
Albuquerque, NM	\$38.25	\$17.20	\$55.45	San Francisco, CA	\$298.96
Austin, TX	113.88	66.66	180.54	Austin, TX	180.54
Charlotte, NC	64.66	69.69	134.35	San Diego, CA	166.05
Chandler, AZ	28.29	27.32	55.61	Indianapolis, IN	157.24
Chicago, IL	44.73	39.05	83.78	Philadelphia, PA	150.90
Columbus, OH	54.65	67.19	121.84	San Jose, CA	147.95
Dallas, TX	48.75	40.44	89.19	Houston, TX	142.47
Detroit, MI	44.78	78.91	123.69	New York, NY	141.27
El Paso, TX	38.48	24.84	63.32	Los Angeles, CA	135.07
Fort Worth, TX	52.87	42.05	94.92	Charlotte, NC	134.35
Glendale, AZ	41.56	33.42	74.98	Tucson, AZ	124.40
Houston, TX	67.35	75.12	142.47	Detroit, MI	123.69
Indianapolis, IN	64.40	92.84	157.24	Columbus, OH	121.84
Jacksonville, FL	36.27	68.42	104.69	Oklahoma City, OK	105.18
Los Angeles, CA	99.82	35.25	135.07	Jacksonville, FL	104.69
Memphis, TN	29.01	22.46	51.47	Fort Worth, TX	94.92
Mesa, AZ	59.67	28.56	88.23	Dallas, TX	89.19
New York, NY	59.15	82.12	141.27	Mesa, AZ	88.23
Oklahoma City, OK	54.47	50.71	105.18	Chicago, IL	83.78
Peoria, AZ	42.90	25.89	68.79	Glendale, AZ	74.98
Philadelphia, PA	72.83	78.07	150.90	Peoria, AZ	68.79
Phoenix, AZ	41.69	22.27	63.96	Phoenix, AZ	63.96
San Antonio, TX	22.93	37.18	60.11	El Paso, TX	63.32
San Diego, CA	118.51	47.54	166.05	San Antonio, TX	60.11
San Francisco, CA	142.32	156.64	298.96	Scottsdale, AZ	59.94
San Jose, CA	109.05	38.90	147.95	Tempe, AZ	55.82
Scottsdale, AZ	40.40	19.54	59.94	Chandler, AZ	55.61
Tempe, AZ	37.11	18.71	55.82	Albuquerque, NM	55.45
Tucson, AZ	78.66	45.74	124.40	Memphis, TN	51.47

* Based on rates in effect March, 2019.

WATER RATE COMPARISON RANKING AVERAGE SINGLE-FAMILY MONTHLY BILL PHOENIX METRO AREA APRIL, 2019

\$/MONTH

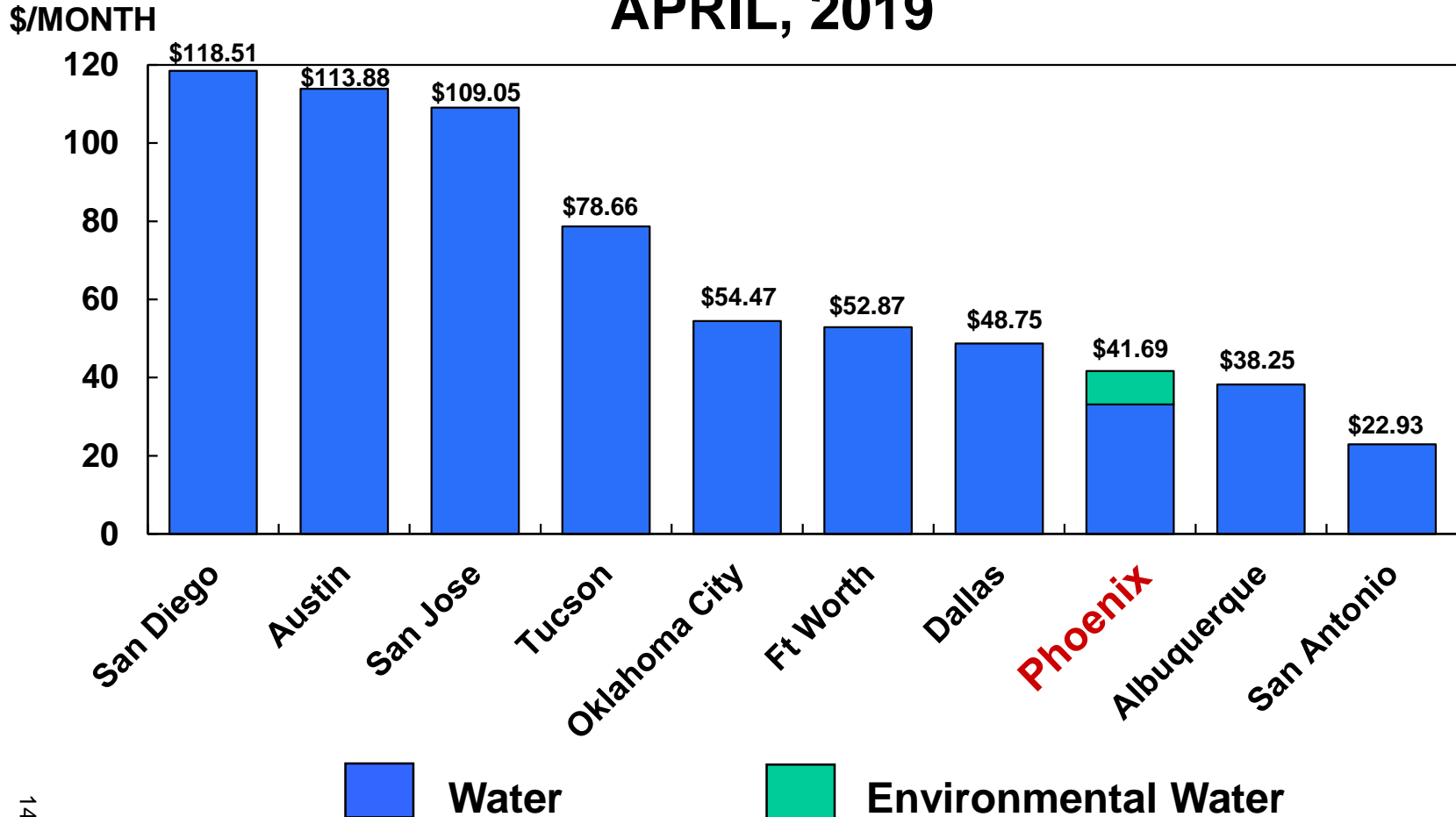


WATER RATE COMPARISON RANKING

AVERAGE SINGLE-FAMILY MONTHLY BILL

SOUTHWEST REGION

APRIL, 2019



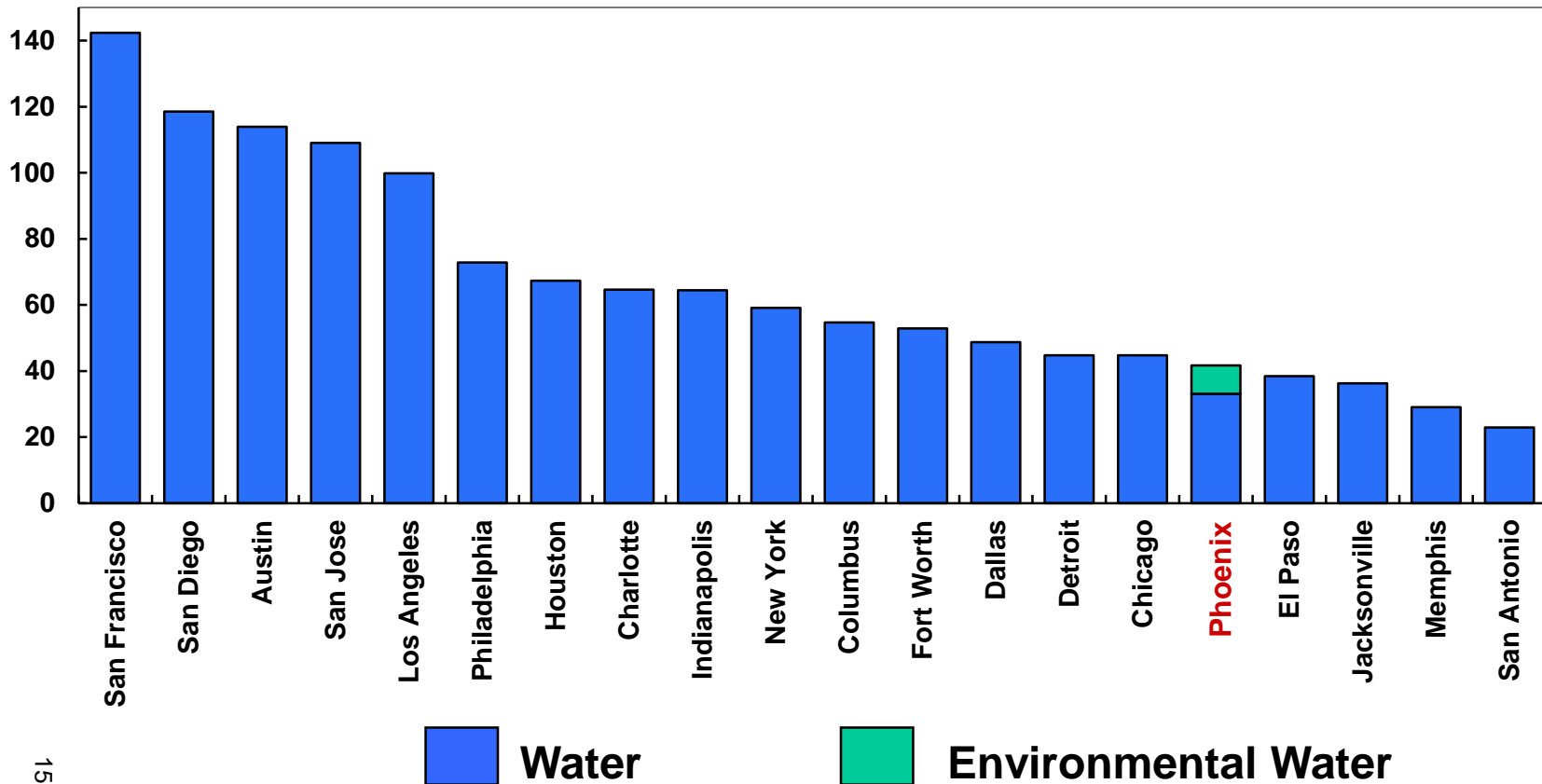
WATER RATE COMPARISON RANKING

AVERAGE SINGLE-FAMILY MONTHLY BILL

TWENTY LARGEST U.S. CITIES

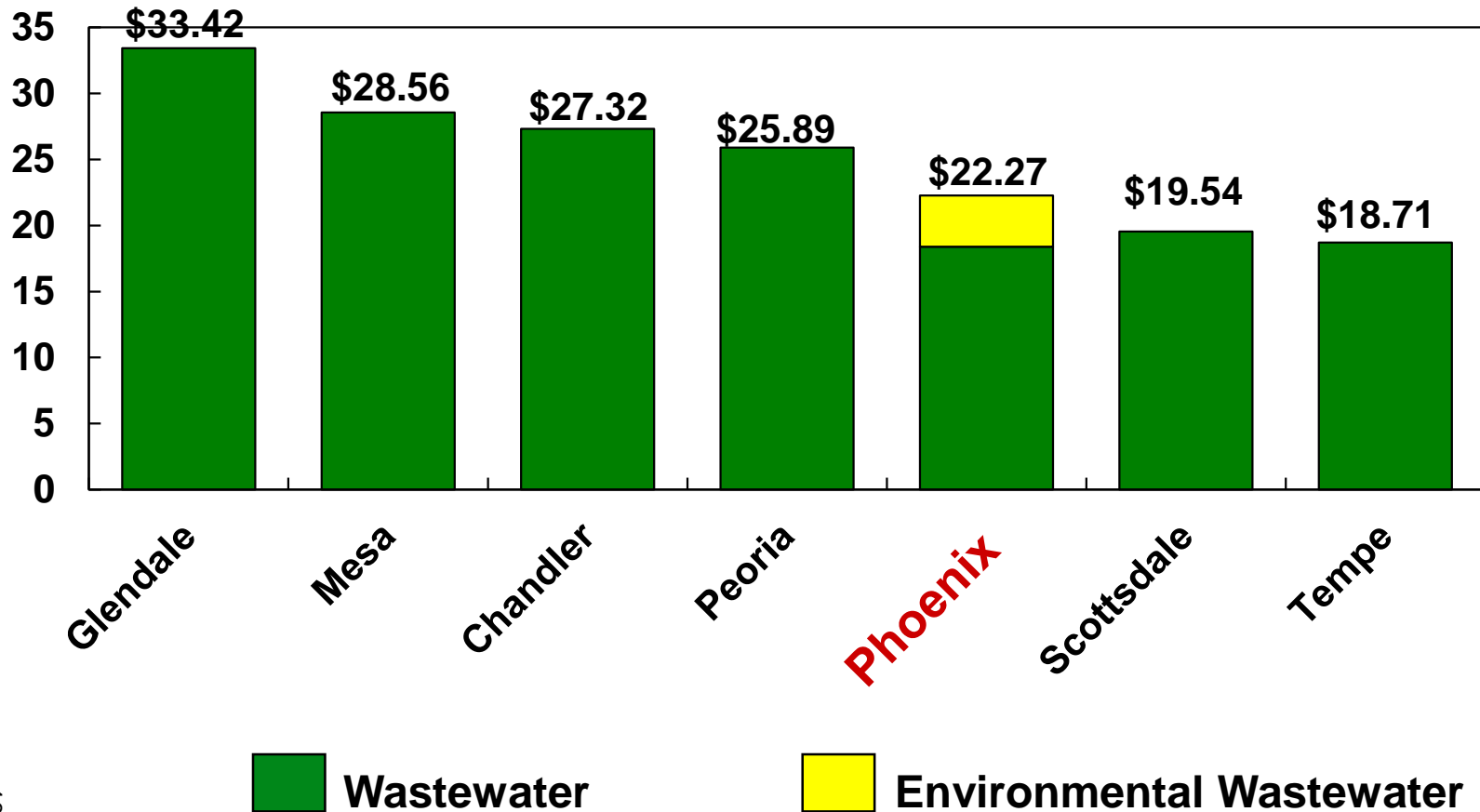
APRIL, 2019

\$/MONTH



WASTEWATER RATE COMPARISON RANKING AVERAGE SINGLE-FAMILY MONTHLY BILL PHOENIX METRO AREA APRIL, 2019

\$/MONTH



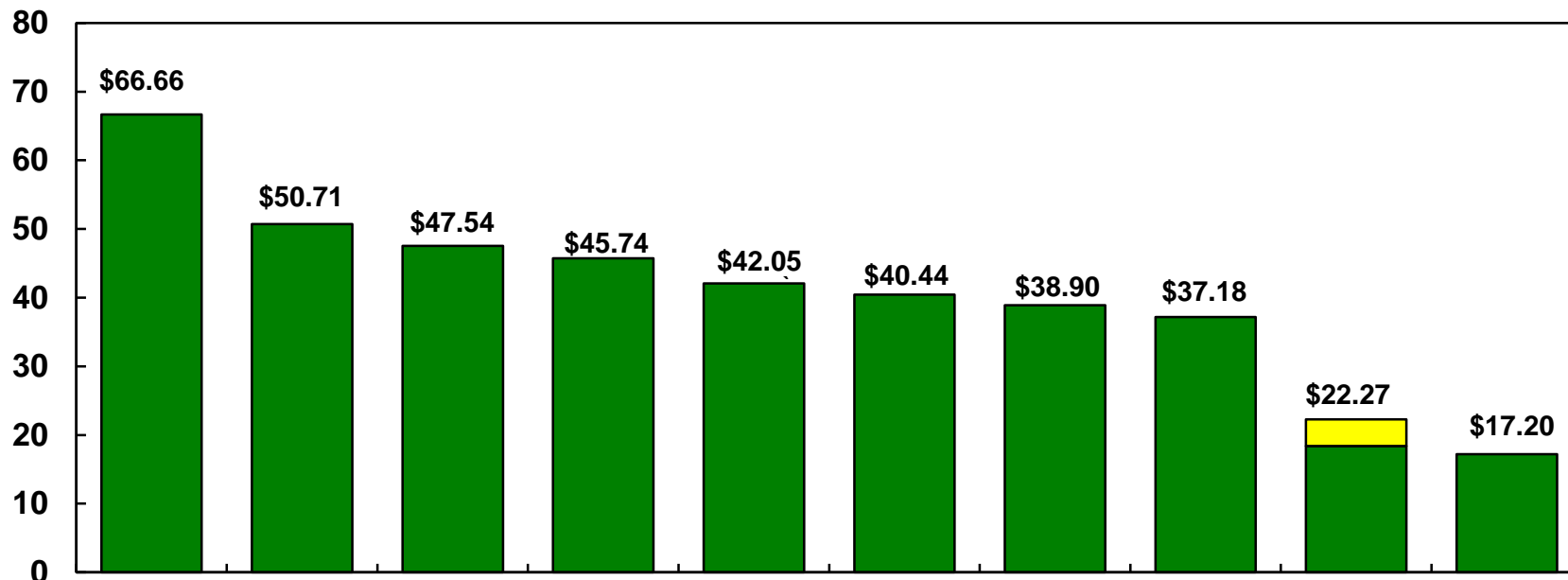
WASTEWATER RATE COMPARISON RANKING

AVERAGE SINGLE-FAMILY MONTHLY BILL

SOUTHWEST REGION

APRIL, 2019

\$/MONTH



Wastewater



Environmental Wastewater

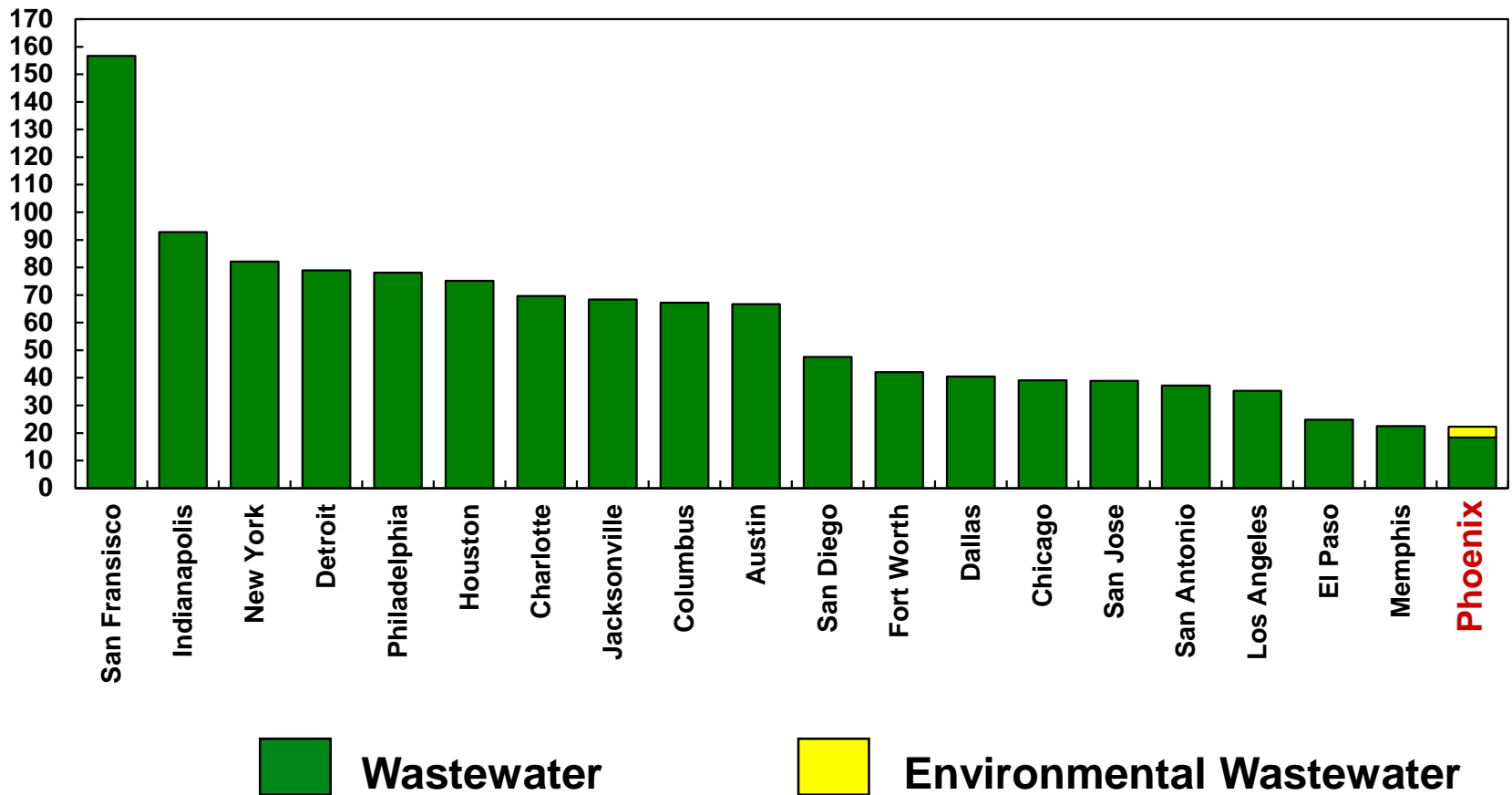
WASTEWATER RATE COMPARISON RANKING

AVERAGE SINGLE-FAMILY MONTHLY BILL

TWENTY LARGEST U.S. CITIES

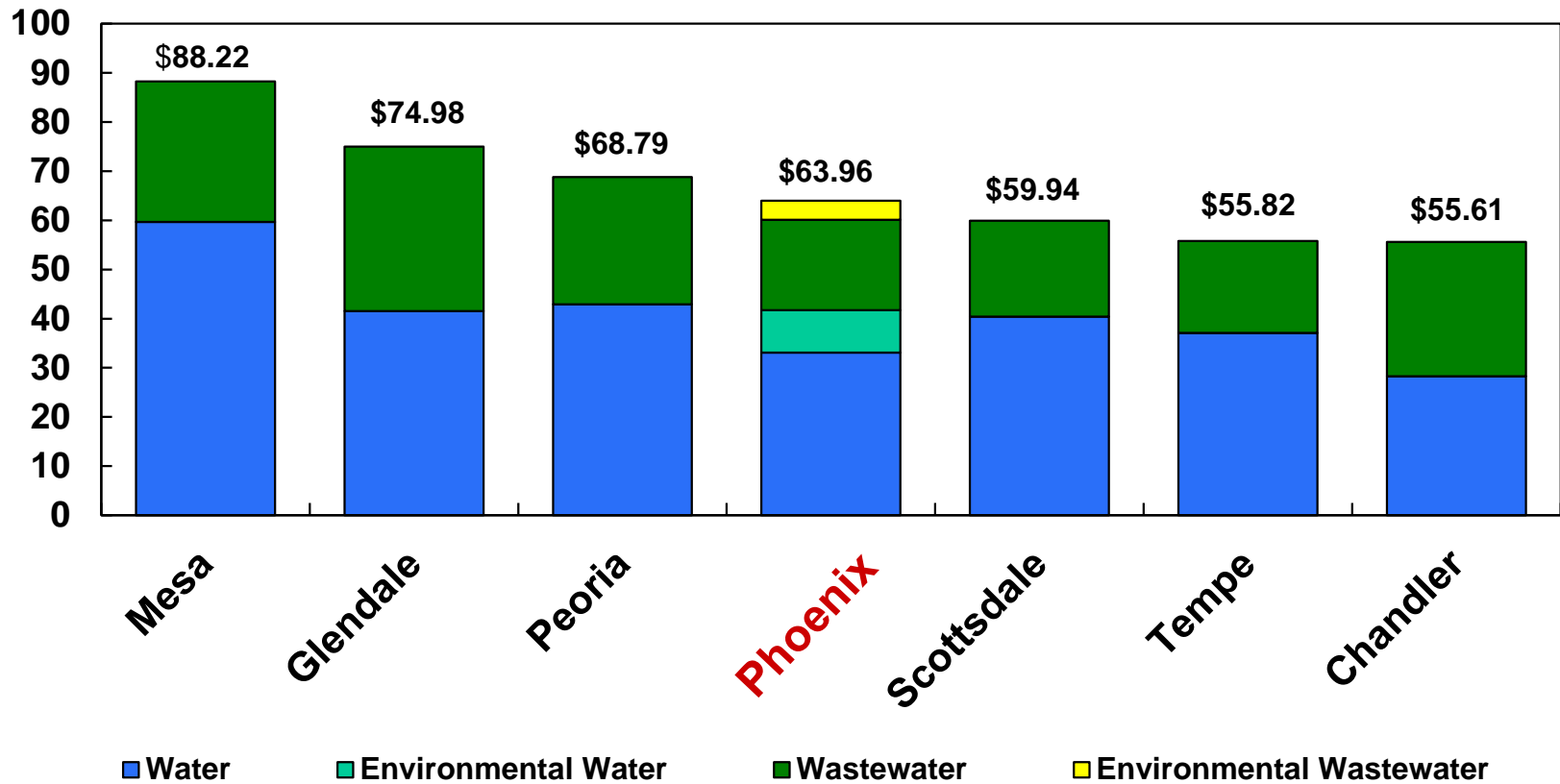
APRIL, 2019

\$/MONTH



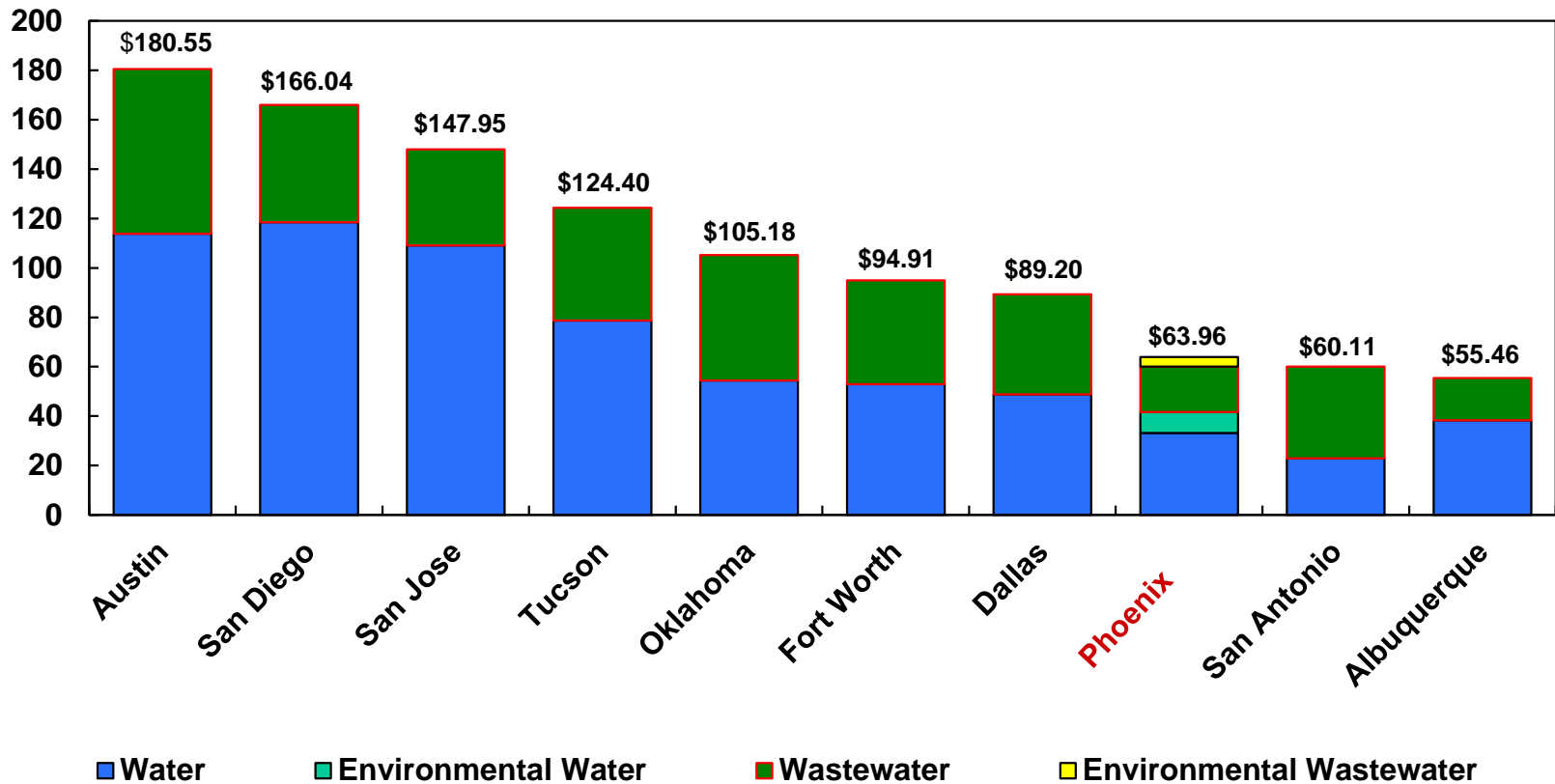
WATER, WASTEWATER, AND SOLID WASTE RATE COMPARISONS COMBINED AVERAGE SINGLE-FAMILY MONTHLY BILL PHOENIX METRO AREA APRIL, 2019

\$/MONTH



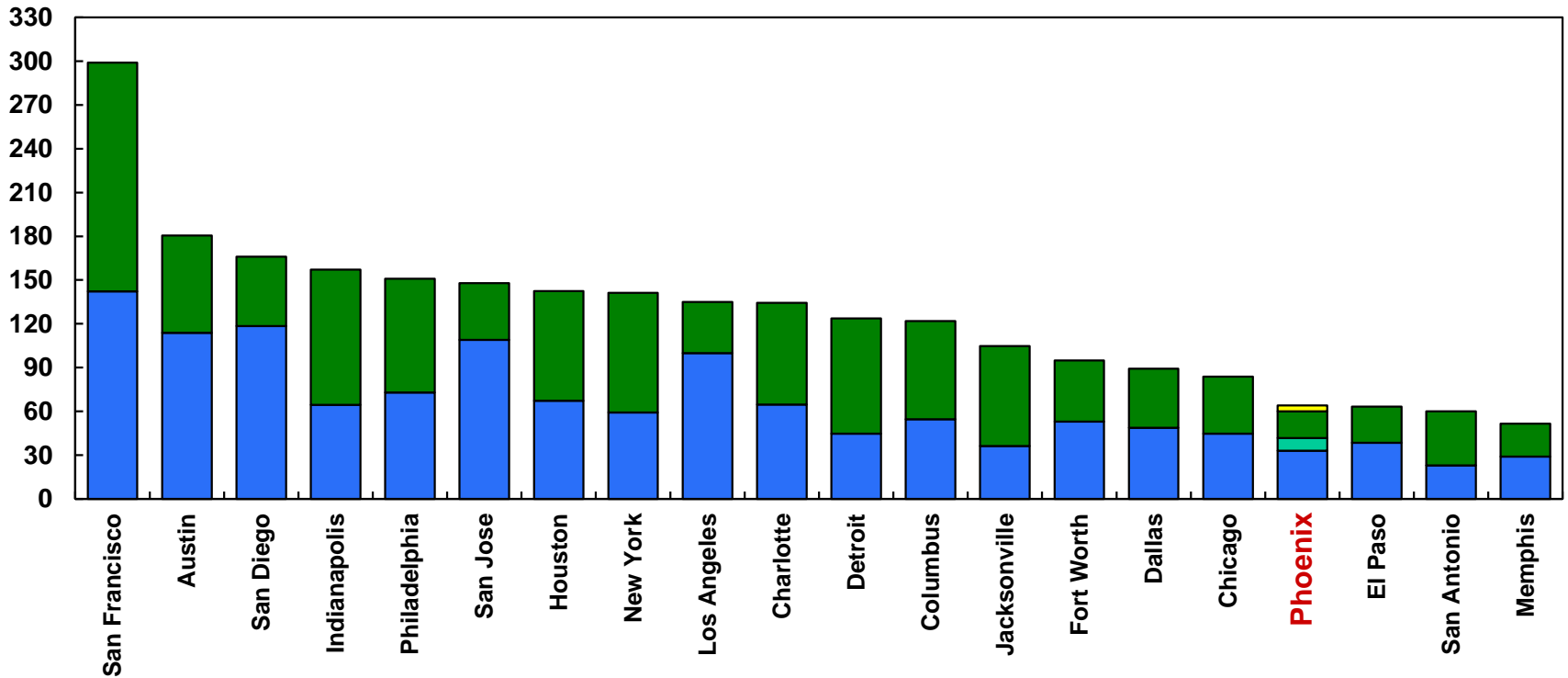
WATER, WASTEWATER & SOLID WASTE RATE COMPARISONS COMBINED AVERAGE SINGLE-FAMILY MONTHLY BILL SOUTHWEST REGION APRIL, 2019

\$/MONTH



WATER, WASTEWATER & SOLID WASTE RATE COMPARISONS COMBINED AVERAGE SINGLE-FAMILY MONTHLY BILL TWENTY LARGEST U.S. CITIES APRIL, 2019

\$/MONTH



■ Water
 ■ Environmental Water
 ■ Wastewater
 ■ Environmental Wastewater