



Water Equity Initiative

City of Phoenix Water Services Department

Presented to

Citizen's Water Rates Advisory Committee

June 23, 2020

Water is the foundation of public health, economic opportunity, and quality of life in any city. Providing accessible, affordable and clean water is essential to community livelihood. Persistent challenges remain. For instance, more than 600,000 U.S. households, or about 1.5 million people, lack access to compete and adequate plumbing. Within the U.S. water insecurity most often disproportionately affects economically distressed populations and people of color. In some utilities, operations, investment in infrastructure, policies, and procedures can unintentionally lead to inequity in service levels, which should be proactively avoided.

At the same time, utilities must maintain reliable operations and infrastructure to provide safe, clean, reliable water to the community, an undertaking of considerable expense that requires sufficient and stable revenue. Transparent, fair, and consistent water billing practices are essential to ensure reliable operations and enhance public support for the community water system.

Water equity occurs when all communities have access to safe, clean, affordable drinking water and wastewater services; have a roll in decision-making processes related to water management in their communities; and share in the economic, social, and environmental benefits of water systems. Water equity is undermined by longstanding and pernicious root causes of societal inequality such as systemic and institutional racism and structural inequalities in access to education, income and wealth, employment, housing, transportation, public safety, and other social services.

The COVID-19 pandemic has brought into sharp focus the need for safe, clean, reliable water supplies in support of public health, and the complicated implications of utility disconnects. It is in this context that Phoenix Water Services is putting forward recommendations regarding water equity, and an unexpected experiment is underway. When the COVID-19 pandemic hit in early March 2020, Phoenix Water Services ceased revenue enforcement efforts and reconnected customers that had previously been disconnected for non-payment. Phoenix Water Services does not anticipate commencing with revenue collection efforts until at least September of 2020. The resulting impacts to revenue are unknown as of the drafting of this report.

Between August of 2019 and June of 2020 the City of Phoenix Citizens' Water/Wastewater Rate Advisory Committee researched and discussed these issues as representatives of the broader community for the purpose of determining where Phoenix Water Services stands on issues of water equity, and to see if there is more than should be done to promote water equity in the City of Phoenix.

This report contains four sections:

- Discussion of where Phoenix stands today on water equity issues, including relevant comparisons and benchmarks
- Ideas and relevant analysis regarding ways in which water equity can be further promoted
- Summary, and
- Recommendations from the citizens' committee.

Ensuring Access to Safe, Clean, Affordable Drinking Water and Wastewater Services

Water Rate Structure

Phoenix's water rates are intentionally structured for affordability. Phoenix water and sewer rates are some of the lowest of large cities in the United States. Relevant comparisons are shown in Figures 1 and 2 below.

Figure 1

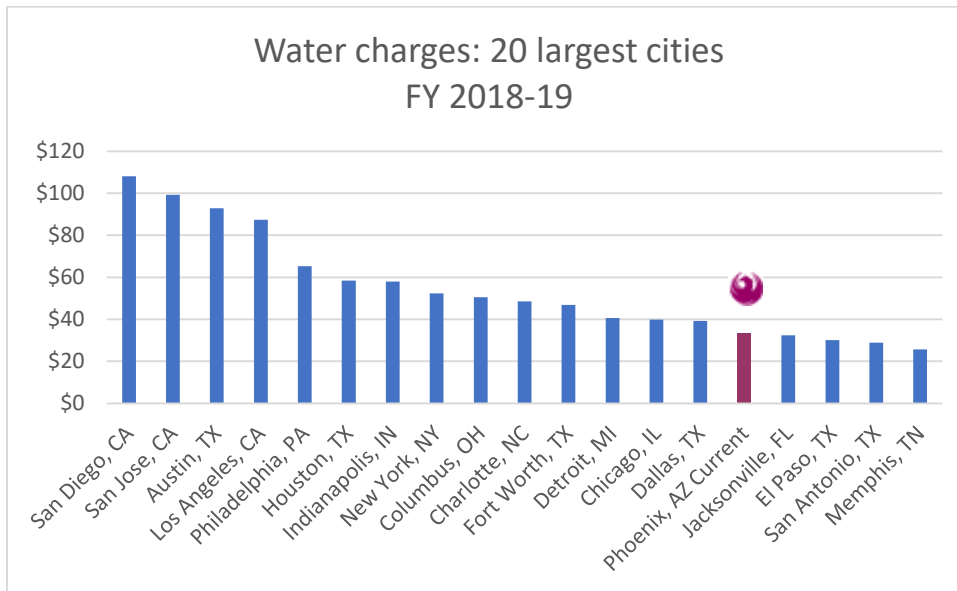
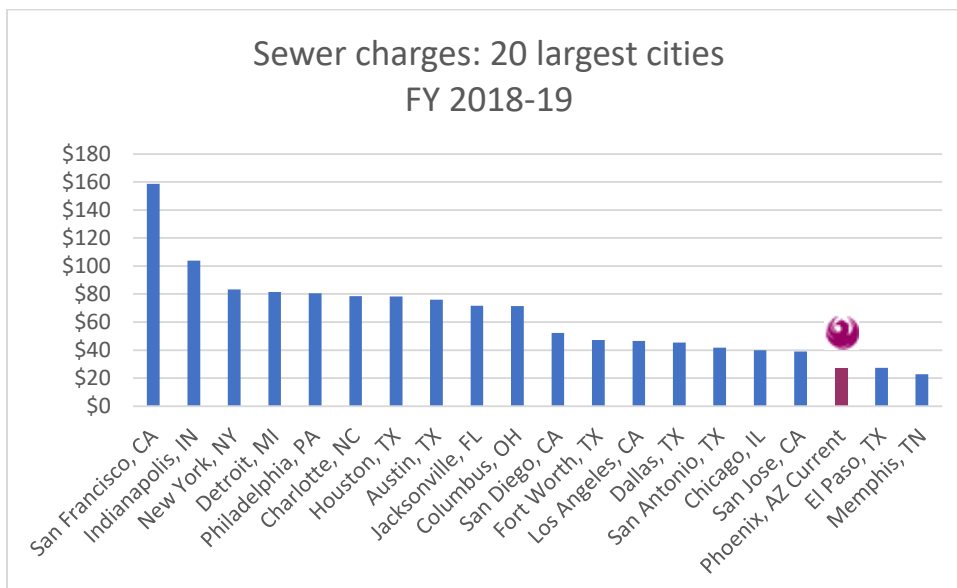


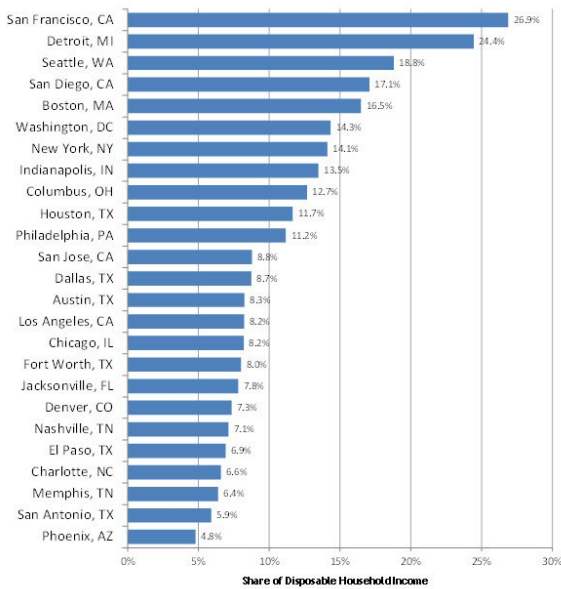
Figure 2



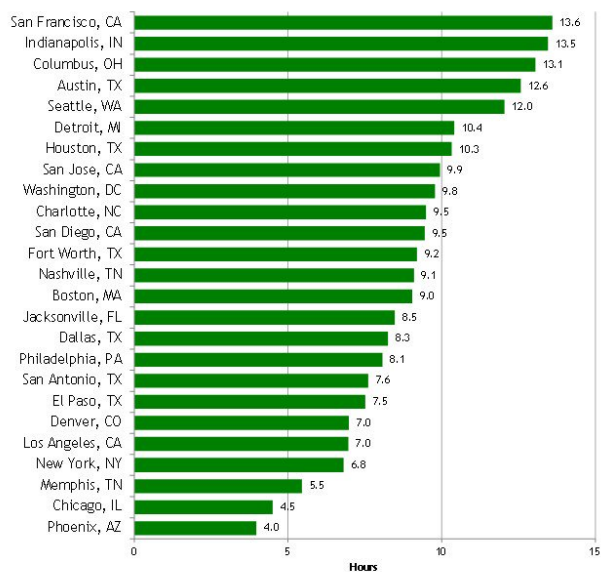
Phoenix has very low fixed charges compared to other communities (generally, \$4.25 for water and \$1.00 for sewer for a single-family residence with a 5/8" meter, the predominant meter size for single-family residents in Phoenix). The monthly fixed charge includes an "allowance"

volume of water sufficient to meet basic indoor water needs. A family with a 5/8” meter that stays within the allowance volume of consumption each month pays only approximately \$9.19 a month for water services and \$16.79 a month for sewer services (based on 2020 rates). According to a 2017 study of affordability in the *Journal of the American Water Works Association*, Phoenix’s water and sewer rates are the most affordable of large cities.*

Affordability Ratio at the 20th Income Percentile (AR₂₀)
2017 basic water & sewer cost for family of four as share of disposable income



Monthly Basic Water & Sewer Cost as Hours at Minimum Wage
2017 rates, family of four at 50 gpcc



*Measuring Household Affordability for Water and Sewer Utilities, Teodoro, M.P., PhD, Journal AWWA, September, 2017

The Citizens’ Water/Wastewater Rate Advisory Committee completed detailed affordability study in 2017, which confirmed that Phoenix’s water and sewer rates are among the most affordable in the country. The Committee further found that the City can raise water and sewer rates, if necessary, to meet revenue requirements while still maintaining acceptable levels of affordability in the community. The Committee’s position paper is attached as Attachment A. Maintaining affordable water rates is one of the most important aspects of ensuring access to safe, clean drinking water and to not only maintain existing levels of equity but also to address and reduce remaining inequities.

Customer Assistance Programs

Water and wastewater service costs are very low in Phoenix compared to other large cities in the U.S. Nonetheless, a number of families in Phoenix are at or below established poverty levels. It must be remembered that the City Services Bill includes not just water and wastewater service costs but also solid waste services and various City taxes.

The average water, sewer, solid waste, and other charges paid by single-family residential customers in Phoenix on the City Services Bill are shown in Table 1 below. As can be seen in

the table, the water and sewer charges combined make up approximately 60% of the City Services Bill for the average single-family residential customer.

Table 1

Water Charges	Sewer Charges	Solid Waste Charges	Taxes	Total
\$ 32.24	\$ 23.80	\$ 30.55	\$ 6.86	\$ 93.46

based on calendar year 2019 average single family residential consumption and current rates (June 2020)

A similar City Services Bill is shown in Table 2 below for a single-family residential customer who always stays within the “allowance” of water consumption that is included in the fixed charge. In this case, the water and sewer charges combined make up approximately 43% of the City Services Bill.

Table 2

Water Charges	Sewer Charges	Solid Waste Charges	Taxes	Total
\$ 9.19	\$ 16.79	\$ 30.55	\$ 4.57	\$ 61.09

based on maximum allowance consumption and current rates (June 2020)

Water, sewer, solid waste, and City taxes are billed together. They are also jointly enforced, meaning that water services are eventually severed for nonpayment of the City Services Bill, not just the water and sewer portion of the bill. This means that it is not just affordability of water and sewer services at issue, but solid waste and City taxes, as well.

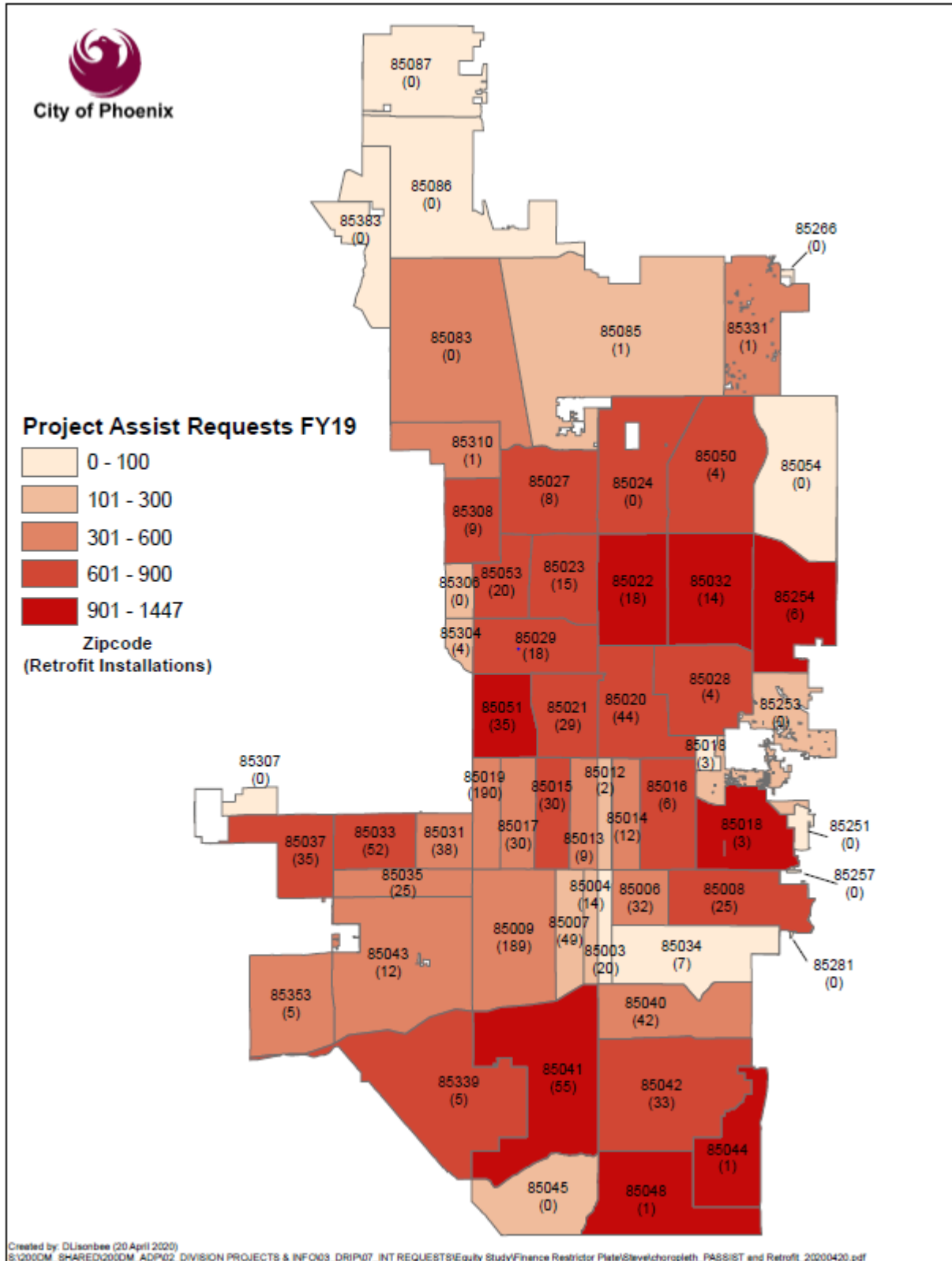
The City has two programs that were created to help economically-disadvantaged customers with their City Services Bill. The first is a plumbing retrofit program that targets low-income households in older homes. This program is managed by the Water Services Department. Through this program, older plumbing fixtures are replaced with newer, more water efficient fixtures that reduce customers’ water consumption and therefore lower their City Services Bill as well. In 2019 the City Council directed the Water Services Department to evaluate expansion of the retrofit program to possibly include a rebate component for water efficient toilets. Recommendations are expected to be developed in Fiscal Year (FY) 2020-21.

The second program is called Project Assist. Through this program, customers that have trouble paying their City Services Bill from current income sources can apply for and receive a credit that is applied to their City Services bill if eligibility criteria are met. Project Assist is managed by the Human Services Department at no cost to the Water Services Department and is funded through contributions from customers, the water and wastewater utilities, and the solid waste utility. Funding from customers varies over time, but generally falls within the range of \$100,000 per year. The water utility contributes \$225,000 per year, the wastewater utility contributes \$155,000 per year, and the solid waste utility contributes \$220,000 per year. In FY 2018-19 nearly 3,000 families were served with an average payment amount of almost \$250. In FY 2019-20 federal funds from The Coronavirus Aid, Relief, and Economic Security

(CARES) Act were applied to small businesses and single-family residential customers that were impacted by COVID-19. At this time, it is not expected that additional federal money will be available to assist customers in future years. It is likely that the assistance program will revert to pre-COVID-19 levels.

The general location of the customers that participated in Project Assist in FY 2018-19, along with all of the customers that have participated in the plumbing retrofit program is shown below in Map 1.

Map 1



Customer Ombudsman Program

The Water Services Department has a customer ombudsman program through which customers can receive advice and assistance on issues related to the City Services Bill. Through this program, customers can speak with a representative who can guide customers through the payment process, correct bureaucratic errors, and connect customers directly to Project Assist and external, non-profit organizations.

Payment Arrangements

Pre COVID-19, payment arrangements were available to all customers who had not defaulted on more than one payment arrangement in the prior 12-month period. Payment arrangements deferred the existing balance owed for a repayment period of three months. The payment arrangement process is automated through the Water Services Department website. Customers can make the payment arrangement online without any assistance or approval needed from a Customer Services staff member. Customers who experience payment difficulties resulting from leaks can speak with a Customer Services staff member on the phone and arrange for repayment periods that exceed three months. Recently, due to Covid-19, all restrictions on qualifications for payment arrangements have been lifted.

Customer Convenience Programs

Part of ensuring access to safe, clean, affordable drinking water and wastewater services is making it as easy and convenient as possible for customers to sign up for service, pay bills, ask questions, and find information. This is an equity issue because not every customer can afford to take time from work to go through the process of accessing these services and information. For this reason, Phoenix Water Services has focused on automating service requests where possible and appropriate, and ensuring 24/7 access to payment options and information requests.

Customer requests can be made via phone call, e-mail, fax, Web, mail, or in person at pay stations and any local Chase Bank. In FY 2018-19 Water Services handled approximately 660,000 phone calls, more than 200,000 in-person transactions, and around 73,000 e-mails. Over 100,000 service requests were processed through the Web. Phoenix Water Services has put significant effort into automating both payments and service requests through the Web, as this method of payment and contact is convenient for many. Over the last three years, the number of customers that have set up Web accounts that can be used to make payments has increased from approximately 60,000 to 250,000. The number of customers enrolled in auto pay has increased from just over 36,000 to nearly 70,000. Customers can also view up to 24 months of their billing history over the Web, as well as change their address, phone number, or e-mail.

Through the Phoenix at Your Service (PAYS) Web application, customers can start utility services, request solid waste containers, submit sewer appeals, and request their PIN numbers. In addition, Phoenix Water Services maintains three in-person pay stations that can be used by anyone who does not have access to banking or credit card services and must pay bills in cash. Local Chase Bank branches can also accept customer payments, including cash. A map of the City's pay stations as well as local Chase Bank branches is presented below.

Map 2

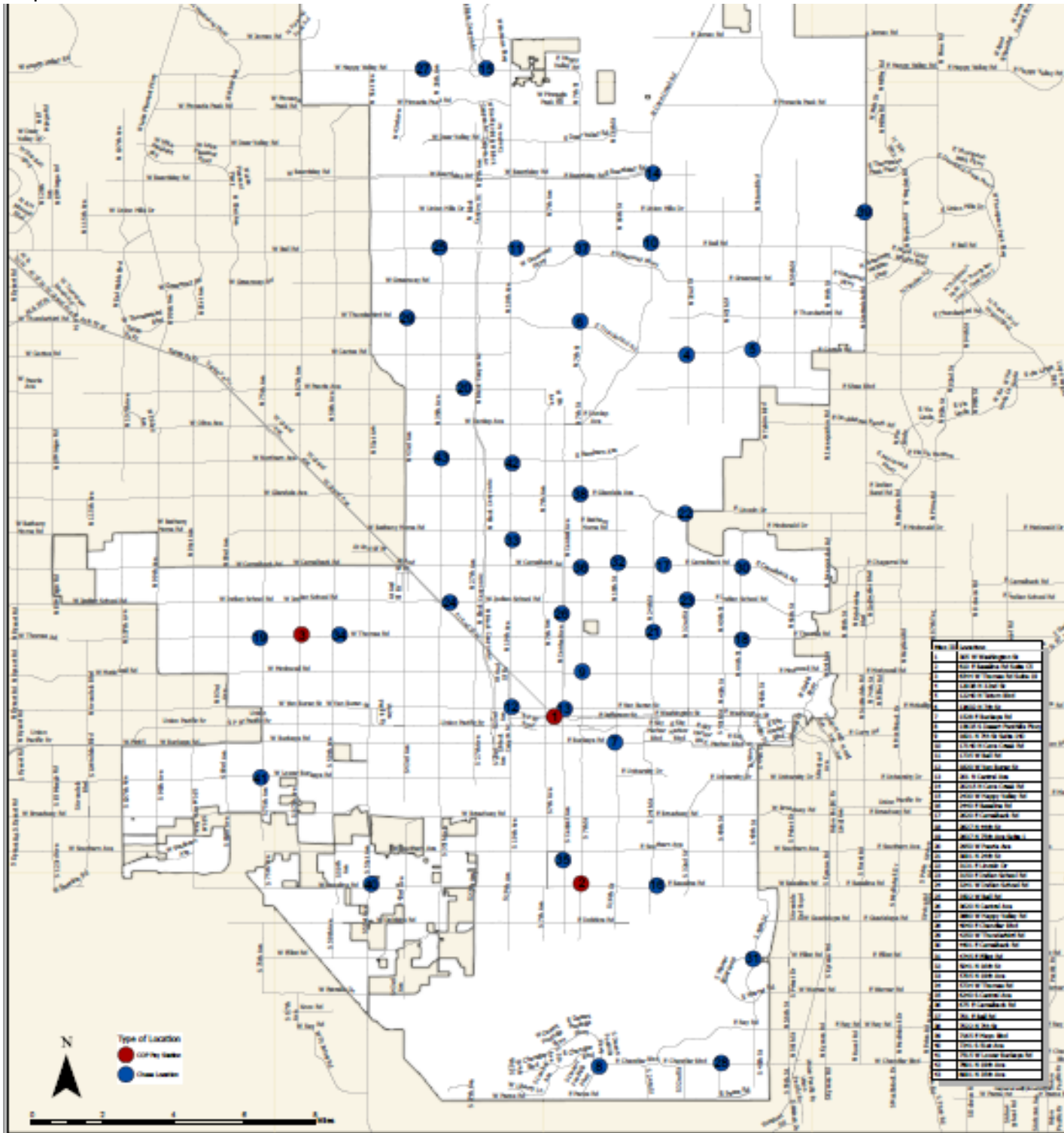


Table 4 (addresses for locations seen in Map 2 above)

Map ID	Location
	City of Phoenix Pay Stations
1	305 W Washington St
2	610 E Baseline Rd Suites C5
3	6544 W Thomas Rd Suite 19
	Chase Bank Locations
4	12038 N 32 nd St
5	12240 N Tatum Blvd
6	13602 N 7 th St
7	1528 E Buckeye Rd
8	15635 S Desert Foothills Pkwy
9	1601 N 7 th ST Suite 140
10	17140 N Cave Creek Rd
11	1735 W Bell Rd
12	1820 W Van Buren St
13	201 N Central Ave
14	20215 N Cave Creek Rd
15	2430 W Happy Valley Rd
16	2440 E Baseline Rd
17	2620 E Camelback Rd
18	2827 N 44 th ST
19	2837 N 75 th Ave Suite 1
20	2950 W Peoria Ave
21	3001 N 24 th St
22	3131 E Lincoln Dr
23	3150 E Indian School Rd
24	3241 W Indian School Rd
25	3502 W Bell Rd
26	3620 N Central Ave
27	3880 W Happy Valley Rd
28	4040 E Chandler Blvd
29	4250 W Thunderbird Rd
30	4401 E Camelback Rd
31	4745 E Elliot Rd
32	5041 N 16 th St
33	5705 N 19 th Ave
34	5724 W Thomas Rd
35	6240 S Central Ave
36	675 E Camelback Rd
37	701 E Bell Rd
38	7022 N 7 th St
39	7165 E Mayo Blvd
40	7241 S 51 st Ave
41	7515 W Lower Buckeye Rd
42	7801 N 19 th Ave
43	8001 N 35 th Ave

Relevant statistics regarding method of payment and use of walk-in payment stations during FY 2018-19 are shown in Table 5 below.

Table 5

FY 2019-20			
Productivity Items		Total	Total \$ Amount
Contact Center			
	Payments Collected	421,140	\$ 57,878,354.83
	ACH by Agents	1,741	\$ 897,679.20
	Credit Cards by Agents	24,354	\$ 7,441,284.27
	Credit Cards by IVR	395,045	\$ 49,539,391.36
Chase Automation			
	Payments Collected	1,945,436	\$ 418,698,345.13
	ACH by Web	134,136	\$ 21,630,708.78
	Auto Pay	560,168	\$ 108,030,370.65
	Credit Cards by Web	751,865	\$ 124,636,616.14
	Lock Box	499,267	\$ 164,400,649.56
305 Pay Station			
	Payments Collected	4,476	\$ 1,137,851.62
	ACH	1,023	\$ 556,454.29
	Cash	2,027	\$ 305,337.19
	Credit Cards	1,426	\$ 276,060.14
West Pay Station			
	Payments Collected	82,783	\$ 10,254,196.41
	ACH	1,701	\$ 609,488.53
	Cash	58,135	\$ 6,947,218.33
	Credit Cards	22,947	\$ 2,697,489.55
South Pay Station			
	Payments Collected	53,548	\$ 6,517,426.44
	ACH	2,278	\$ 644,391.81
	Cash	34,336	\$ 3,778,406.75
	Credit Cards	16,934	\$ 2,094,627.88
Pay Station Totals			
	Payments Collected	140,807	\$ 17,909,474.47
	ACH	5,002	\$ 1,810,334.63
	Cash	94,498	\$ 11,030,962.27
	Credit Cards	41,307	\$ 5,068,177.57

Water Customer Service Total Payments Collected			
	Payments Collected	2,513,563	\$ 502,450,794.05
	ACH	140,879	\$ 24,338,722.61
	Auto Pay	560,168	\$ 108,030,370.65
	Cash	94,498	\$ 11,030,962.27
	Credit Cards	1,212,571	\$ 186,685,469.34
	Lock Box	499,267	\$ 164,400,649.56
	Payment Quick Add	90	\$ 49,979.77
	Wires	6,090	\$ 7,914,639.85

The percentage of each type of payment that are made outside of normal business hours is shown in Table 6 below.

Table 6

Time stamped transactions recorded during the period of July, 2018 to May 13, 2020			
Platform	Payment Type	After Hours	During Business Hours
IVR - interactive voice response on telephone	credit card	295,633	655,772
website	credit card	881,116	1,318,106
website	echeck	68,286	112,789
customer service representative	echeck	51	2,000
customer service representative	credit card	2,082	80,553
total		1,247,168	2,169,220
		37%	63%

The number of services requested through PAYS since inception is shown below in Table 7.

Table 7

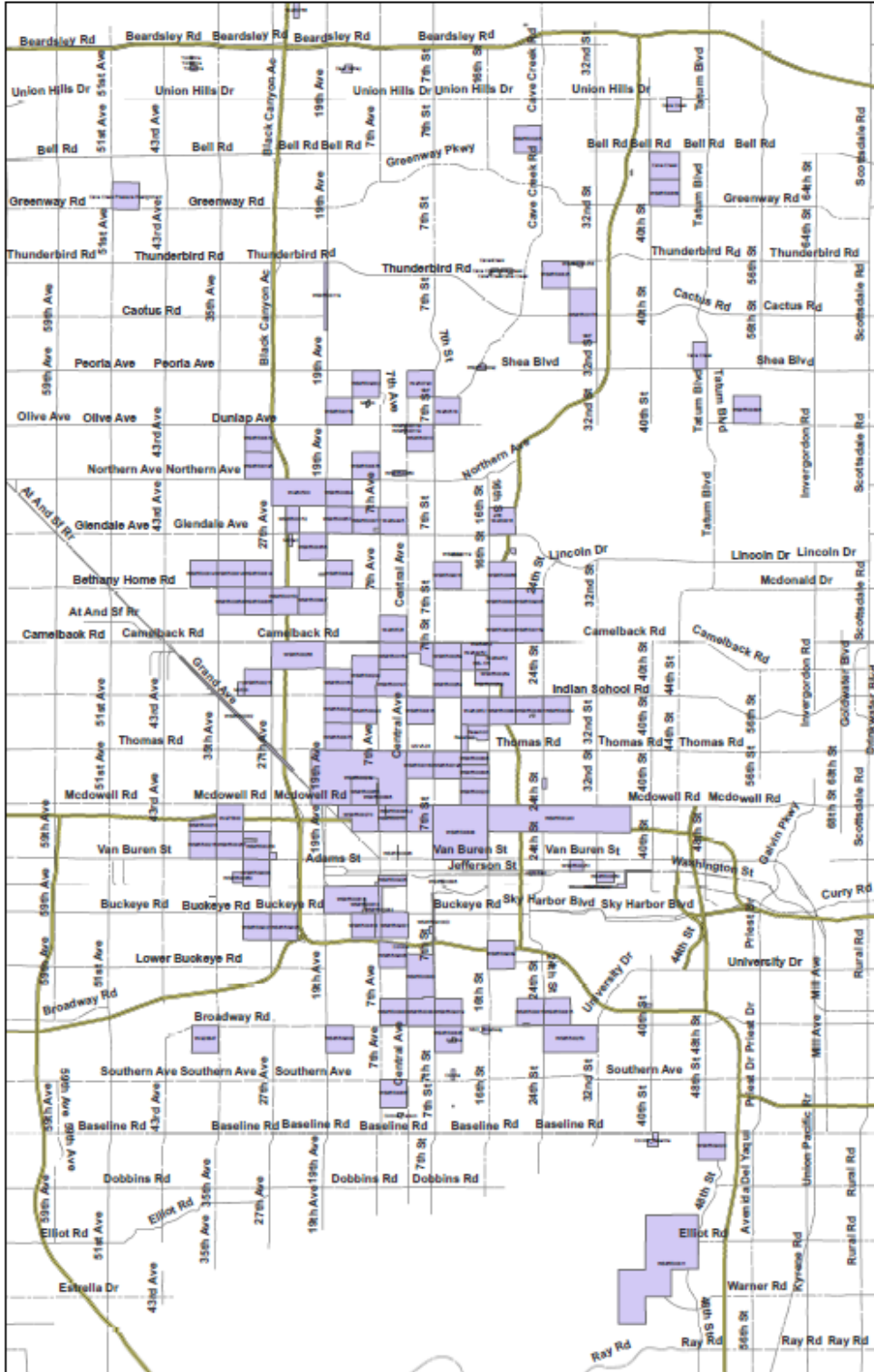
Request through PAYS		
	FY 2018-19	FY 2019-20
City Services Bill	7,654	7,483
PHX Payonline	5,764	1,212
Start,Stop, Transfer	44,873	32,822
Public Works	33,268	24,811
PINS	12,753	21,910
	<u>104,312</u>	<u>88,238</u>

The Phoenix Water Services Department includes Spanish language options for various kinds of information contained on the website. English versions of print materials providing information to customers also typically include Spanish version alternatives. Pay stations are staffed with Spanish speaking representatives. When no Spanish speaking representative is available at a pay station, phone calls are made to Spanish speaking staff members at other sites to provide communication Spanish. Signage at pay stations is written in both English and Spanish. Customers who call into the Customers Services line are given an option to speak with a Spanish speaking representative. Customers who request a printed bill in Spanish are provided with a Spanish version of their City Services bill. Average wait times experienced by customers calling the Customer Services phone line and selecting Spanish are approximately 2 minutes while customers selecting English average approximately 1 minute. The wait for Spanish language customer service representatives is somewhat longer due to having a smaller number of Spanish Speaking Customer Service Representatives than representatives who provide service in English only. Service to Spanish speaking customers typically takes longer due to a diversity of dialects and nomenclature.

Pipeline Replacement Program

Another major aspect of ensuring access to safe, clean, affordable drinking water relates to replacement of old, sub-standard water pipelines. Replacement of these mains ensures fewer water quality concerns, fewer service interruptions, and enhanced fire protection. As water mains are replaced, streets are re-paved and new services installed to the customer's meter. Although priorities for replacement of old and substandard pipelines are set based on criticality and risk, old and sub-standard mains generally exist in the oldest parts of the City's water service territory, and often in economically-disadvantaged areas. The pipeline replacement program thus can provide multiple benefits to disadvantaged neighborhoods. The pipelines that have been replaced to date are shown in Map 3 below.

Map 3



Water Main Replacement Completed Project Areas

Sewer Improvement District Program

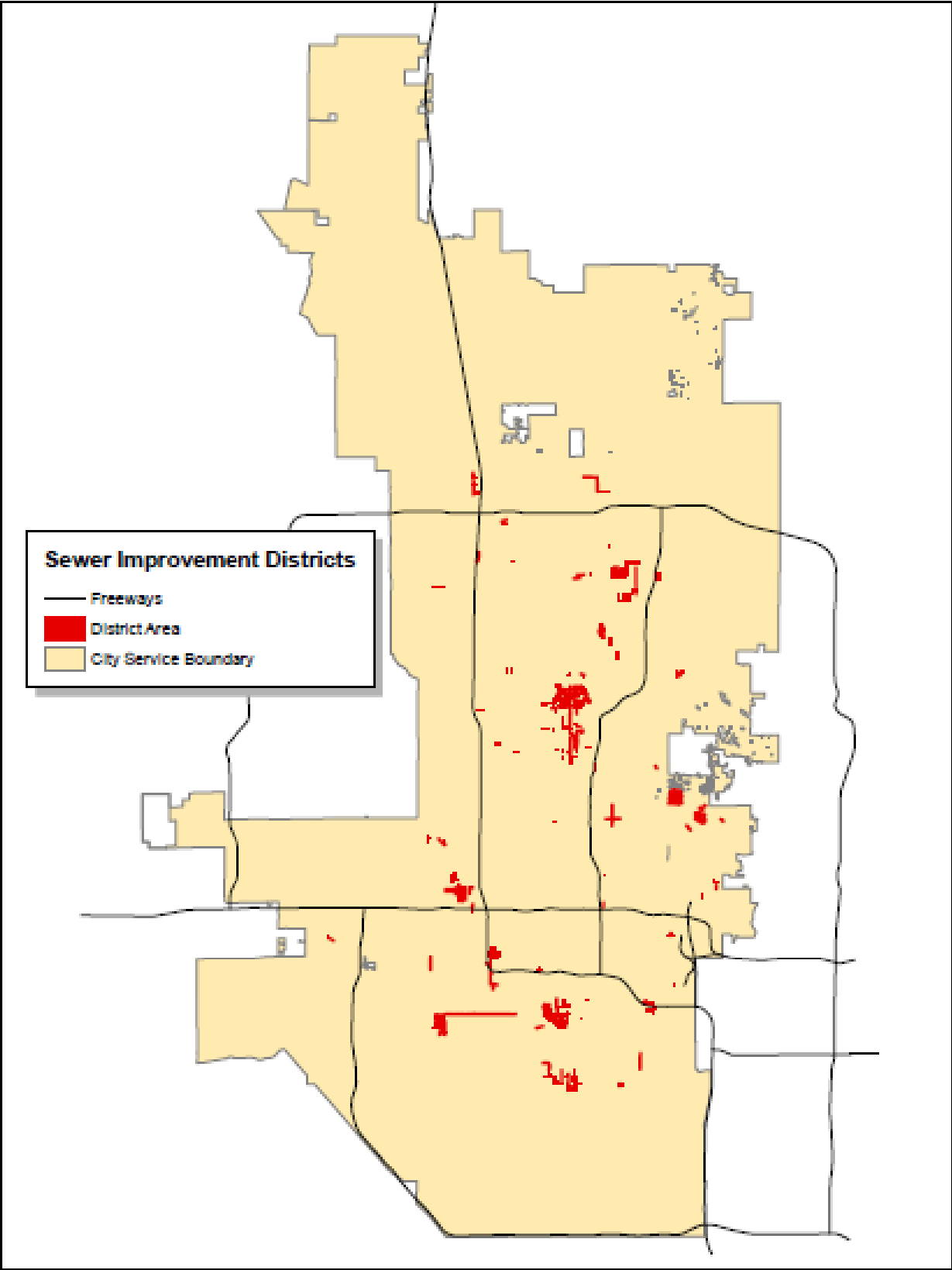
Although nearly all Phoenix Water Services customers enjoy sewer service, there are portions of the City's service territory that are without sewer. The City offers a sewer improvement district program through which customers can gain relatively affordable access to sewer services for properties dependent on old septic systems.

The sewer improvement district program is administered by the City of Phoenix Street Transportation Department (Streets) in cooperation with the City of Phoenix Water Services Department. When there is an interest in the extension of sewer lines into an unserved area, Streets determines the cost to each customer based on an evaluation of the needed infrastructure. Streets then petitions and ballots the customers in the area that would receive the new services. If customers support the project, Streets then seeks approval from City Council. When such projects proceed, Water Services Department funds the infrastructure and is then reimbursed by the customers who receive the new services.

Approximately 4,854 customer accounts have gained access to sewer services through this program. The U.S. Census Bureau reports that in the period from 2014-18 there were on average 2.87 persons per household in Phoenix. Given these values, 9,015 individuals in single family homes have gained access to service services through this program. An undetermined quantity of individuals living in 570 multifamily locations also gained access.

The areas of the City that are served through a sewer improvement district are shown in Map 4 below.

Map 4



The breakout of customers who received service through this program and could be identified by type is seen in Table 9 below:

Table 9

<u>GENERAL CATEGORIES</u>	<u>COUNT</u>	<u>Percent of Total</u>
COMMERCIAL	578	11.91%
INDUSTRIAL	2	0.04%
INSTITUTION	69	1.42%
MULTI FAMILY	570	11.74%
OFFICE	96	1.98%
RESTAURANTS	36	0.74%
SINGLE FAMILY	3141	64.71%
UNKNOWN	362	7.46%
TOTAL	4854	100.00%

Ensuring that residents have a roll in decision-making processes related to water management in the community

One of the main ways in which Phoenix Water Services ensures that residents have a roll in decision-making related to water management in the community is through the Citizens' Water/Wastewater Rate Advisory Committee. The Citizens' Committee meets regularly in a public, open meeting format to learn about, discuss, and make recommendations regarding water and wastewater utility capital planning, operations, policy, and finance. The role of the Citizens' Committee is to represent the interests of residents across the City in regard to water and wastewater issues.

Phoenix Water Services also undertakes extensive, interactive public education and outreach regarding water conservation, water resource planning, infrastructure development, and other relevant topics through print material, over the Web, on social media, at seminars and conferences, and through facility tours. Neighborhoods are canvassed before infrastructure improvement projects begin so that concerns can be proactively addressed. During FY 2019-20, Phoenix Water provided 117 presentations at elementary and middle schools, and also launched a digital education page to continue the learning at home. This page focuses on water conservation resources for all ages. Phoenix Water staffed booths at 23 different community events. Additionally, the department conducted 20 community education workshops, 4 HOA board, neighborhood and conference presentations, 10 public tours, and 7 business efficiency check-ups.

Most recently, Phoenix Water Services rolled out an interactive Web site through which community members can get a wealth of information regarding infrastructure projects in their neighborhood. The Web site also allows residents to comment on projects and provides a contact number for those who wish to speak in person regarding questions and concerns. The Web site can be found at <https://waterworks.phoenix.gov/>.

Ensuring that the community shares in the economic, social, and environmental benefits of the water and wastewater systems

Phoenix Water Services provides safe, clean drinking water across the City, and safely removes wastewater from homes and businesses, and treats it in protection of the environment. The provision of these services forms the foundation of public health, economic opportunity, and quality of life in our desert City.

Small business requirements are followed on all capital projects, which helps ensure that the economic benefits of infrastructure investment are broadly shared across the community. In addition, Phoenix Water Services partners with the City's Public Arts program in the beautification of existing and new utility infrastructure. Through this program, water and wastewater facilities are updated to include art installations so that they become attractive and interactive facilities in local neighborhoods. This program helps create a sense of pride in the community water and wastewater system.

Tres Rios is a constructed wetland that uses reclaimed water from the 91st Avenue Wastewater Treatment Plant to create a desert oasis for local wildlife. Tres Rios also functions as green infrastructure that helps "polish" the reclaimed water from the plant before it is released into the environment. Residents can hike, bike, fish, and bird-watch at the wetlands and connect with a natural environment in the middle of an urban setting.

Phoenix Water Services employs approximately 1,500 skilled workers, who build, maintain, operate, and manage the water and wastewater utilities. Steady employment and benefits help ensure that many in the community share in the economic benefit of the local utility system. At the same time, the water workforce is aging across the country, and there are many opportunities to build a water career pipeline for youth and adults. Phoenix Water Services collaborates with local community colleges, state universities, and local labor unions to offer internship and apprenticeship opportunities. Phoenix Water Services is working on improving its recruiting among disadvantaged communities and is hosting job fairs to ensure opportunities are accessible to all who qualify.

Ideas to Enhance Access to Safe, Clean, Affordable Drinking Water and Wastewater Services

Fee Changes

Although Phoenix's water rates rank as among the most affordable in the nation, service fees and policies can still present a barrier to service for those who suffer hardship or are economically disadvantaged. The Citizens' Water/Wastewater Advisory Committee looked carefully at fees.

Fees differ from rates. Fees are direct charges made to an individual customer's account to recover the costs of providing a specific service to that customer and are imposed as an alternative to incorporating the costs of the delivery of that ancillary service into the revenue requirement used to calculate water rates. In general, there are two reasons for charging fees: to ensure individual customers who have incurred specific costs for ancillary services directly pay for the costs incurred, and to encourage positive behaviors.

All water and sewer fees imposed by Phoenix Water Services are formally adopted by Phoenix City Council through ordinance. Fees are applied when a customer requests a specific service

or is charged for an unauthorized action, such as water theft. The most recently established fee was approved by Council in 2008 and has not been updated since. Fees are calculated based on cost-of-service.

In FY 2018-19, the water utility earned \$8,179,127 in fees, compared to a total rate revenue of \$370,118,095, and the wastewater utility earned \$3,217,620 in fees, compared to a total rate revenue of \$201,797,364.

The Citizens' Committee compared Phoenix's water and sewer fees to those imposed by other Arizona municipalities and private water companies as well as those imposed by other large cities across the country. The comparison charts are included as Attachment B. In general, service activation (turn-on), and late payment fees appear to be somewhat higher than other cities. Theft, tampering, security deposit, and non-sufficient fund check fees appear to be somewhat lower than other cities.

The Committee examined different examples of how the imposition of various fees for non-payment can cause a customer's City Services Bill to increase significantly. For example, a customer who consumes the Citywide average of water (at the time of the presentation to the citizen's Committee) paid \$30.15 for water, \$26.80 for solid waste, and \$24.66 for wastewater services, for a total of \$81.61 (not including the various City taxes that also appear on the City Services Bill). If such a customer were to miss two-months of payment, experience a returned check, and subsequently be disconnected for non-payment, the bill would increase to \$244.18, of which only \$163.22 is for services provided. In other words, an approximately \$160 bill can incur approximately \$80 in fees. Similarly, a customer who uses very little water and stays within the monthly "allowance" included in the fixed charge would pay \$26.95 for solid waste, \$16.79 for wastewater, and \$8.36 for water services. This customer in the same situation as the previous example would incur approximately \$80 in fees for \$100 in actual services.

By City ordinance, late fees are imposed at 3% per month on the amount due for the entire City Services Bill and continue to accrue until the full bill is paid. For those who simply cannot afford to pay, this accrual of late fees can become insurmountable and unnecessarily punitive over time.

The amount of late fees billed per utility in FY 2018-19 is listed below in Table 10, along with statistics regarding the average late fees paid for each utility.

Table 10

Late fees billed FY 2018-19	Single family residential	Multi-family residential	Commercial/industrial /institutional/other
Total late fees	\$ 4,154,363	\$ 459,943	\$ 693,117
Average late fee water	\$ 1.50	\$ 9.10	\$ 11.67
Average late fee sewer	\$ 1.07	\$ 5.04	\$ 5.38
Average late fee solid waste	\$ 1.19	\$ 3.06	\$ 2.36

While the imposition of late fees is necessary to encourage customers to pay regularly and punctually so that revenue streams are stabilized, allowing late fees to continue to accrue for single-family residential customers after disconnection of service has occurred may be counterproductive. Once service is disconnected single-family residential customers have a very strong incentive to pay their City Services Bill in full to restore water service and the continued imposition of late fee accruals may no longer serve much purpose. An estimate of the loss of revenue per utility that would occur should the City cease charging late fees after service disconnection is presented in Table 11.

Table 11

Late fees billed FY 2018-19 after disconnection	Single-family residential	Multi-family residential	Commercial/industrial/other	Total potential revenue loss
Water	\$ 222,887	\$ 10,457	\$ 45,546	\$ 278,889
Sewer	\$ 126,474	\$ 6,930	\$ 14,613	\$ 148,017
Public Works	\$ 149,472	\$ 12,172	\$ 784	\$ 162,428

Phoenix imposes several different classes of fees for what is essentially tampering and/or theft of water service (anti-theft device \$77, broken meter lock \$61, unauthorized use \$28). These fees could be combined into a single tampering/theft fee that could be assessed for each infraction that is separate in time. The average unauthorized water use fee among comparable Arizona cities is approximately \$100. Reducing punitive accrual of late fees while increasing fees associated with theft and tampering would allow Phoenix Water Services to better ensure broad access to water and wastewater services while discouraging undesirable behaviors.

While some committee members noted that water and sewer services could be separately billed as a means to ensure broader access to water and sewer services (meaning that the water and sewer services become more affordable when decoupled from other charges), this would increase overall City administrative costs, make solid waste and City tax revenue more difficult to collect, and have negative implications for the City's general fund.

Changes to Shutoff Policies

Financial stability is essential to ensure that we can fulfill our public health and safety mission of providing safe, clean, and environmentally responsible water and wastewater services. Only as a last resort, Phoenix Water Services disconnects customers for non-payment of the City Services Bill. This activity is unfortunately necessary to safeguard the financial soundness of the water, sewer, and solid waste utilities and to maintain equity among customers.

Although disconnection occurs only when all other options fail, when it becomes necessary, Phoenix Water Services is careful to be timely and consistent in the process so that customers are treated equally. This is important because it is easier for customers to overcome an outstanding smaller bill that represents two months of service, for example, than to overcome a much larger outstanding bill that represents many months of service. In FY 2018-19 there were 23,284 unique disconnections and 25,276 repeat disconnections. These disconnection figures include all disconnections for non-payment regardless of the reason, including customer deaths, customer relocations, missed payments by winter visitors, water theft, incarceration, as well as financial hardship. Phoenix Water Services does not disconnect customers who owe less than

\$75 on their City Services Bill, nor disconnect customers on Fridays, immediately before holidays, or on days of extreme heat.

It is desirable for both the customer and the utility to avoid disconnections altogether rather than to react to them after-the-fact. To this end, Water Services is looking at the use of advanced statistical analytics to determine whether specific patterns of consumption or payment can predict pending disconnections. If so, it may be possible to use proactive, tailored customer communications via text, e-mail, phone, or letter to prevent disconnects. Water Services is exploring a partnership through Amazon and Arizona State University through which such proactive and tailored communications can potentially take place.

Phoenix Water Services is also exploring the possibility of restricting flows to households to minimal levels rather than shutting them off completely. If the concept works, flows would be restricted to the lowest level at which the meter still registers use. This minimal flow would allow customers to continue to use water for drinking, cooking, and basic washing, although glasses and pots would fill very slowly. However, the flow would be too small to allow for outdoor and other discretionary uses. This would allow customers in difficult circumstances to continue to receive a very small amount of tap water for basic purposes, while still experiencing a strong incentive to pay the City Services Bill and restore full service.

No revenue enforcement for single-family residential customers is taking place as of the writing of this paper due to COVID-19 conditions. When revenue enforcement might resume is unknown, but due to the extreme heat in the summer in Phoenix, is not anticipated to begin again until at least September, 2020.

Project Assist Funding Levels and Qualifications

There are some in the community that experience persistent poverty or sudden, extreme financial hardship. Through the Project Assist program, customers that have trouble paying their City Services Bill from current income sources can apply for and receive a credit that is applied to their City Services bill if eligibility criteria are met. Another means to avoid disconnections is to increase funding levels for Project Assist. This may be particularly helpful since solid waste rates are increasing by \$6 per month over the next two years. Contributions to Project Assist from each of the three utilities should be proportional to the ratio of each utility's contribution to the average City Services Bill for participants in the Project Assist program. At a \$1 million funding level, the water utility should contribute \$370,000, the wastewater utility should contribute \$270,000, and the solid waste utility should contribute \$360,000.

At present, CARES Act money from the federal government is available to help pay the City Services Bill for those who can meet eligibility requirements (citizenship and COVID-19 related employment loss). Because this federal money is available in the short term, it may not be necessary to increase Project Assist funding levels until FY 2021-22.

Summary

Phoenix Water Services is highly successful in ensuring broad access to safe, clean, affordable drinking water and wastewater services. This is in large part due to the structure of its water rates (which help ensure affordability), responsible investment in replacement of aging pipelines, a robust customer assistance program, plumbing retrofits, Spanish language services,

and extensive customer convenience programs. However, water is the foundation of public health, economic opportunity, and quality of life in a desert City and it is important that Phoenix Water Services continue to strive and improve in this area.

Citizens' Committee Recommendations

To improve access to safe, clean, affordable drinking water and wastewater services, the City of Phoenix Citizens' Water/Wastewater Rate Advisory Committee recommends that the Water Services Department undertake the following actions:

- Test, and if successful, deploy flow-restrictions in lieu of water service disconnections once revenue enforcement commences;
- Discontinue the accrual of late fees for single-family residential customers after the disconnection of water services and/or installation of low-flow devices;
- Consolidate theft/tampering fees into one fee that is charged at \$100 per incident;
- Employ advanced statistical analytics to determine if there are valid means to predict and prevent disconnections through tailored, proactive communication;
- Increase Project Assist funding to \$1 million per year beginning in FY 2021-22;
- Hire additional Spanish-language customer service agents to equalize call wait times; and
- Gather data regarding customer use of languages other than English and Spanish, and explore the possibility of offering additional language services.

Attachment A



City of Phoenix Water/Wastewater Rate Advisory Committee Technical Subcommittee

Affordability Position Statement November, 2017

The City of Phoenix Water Services Department provides safe, clean drinking water to 1.5 million people over 540 square miles. Phoenix Water also safely removes wastewater from homes and businesses, and provides wastewater treatment and reuse services for 2.5 million people throughout the Valley of the Sun. These enterprises entail eight treatment plants, 12,000 miles of water and sewer lines, 50,000 fire hydrants, 90,000 manholes, and hundreds of reservoirs, pump stations, lift stations, and pressure reducing valves. Approximately 5 million water quality tests are performed in the system every year. Providing these services is an enormous undertaking and responsibility; it is also an undertaking of considerable expense. Annual operational expenses total approximately \$300 million; annual debt service totals \$180 million, and ten-year infrastructure needs total nearly \$4 billion.

The City of Phoenix water and wastewater utilities do not operate for profit but must earn enough revenue to cover the utilities' debt service, operational expenses, infrastructure needs, and target reserve levels. Providing water services to the community thus requires that customers pay for these services. The Water/Wastewater Rate Advisory Committee is generally charged with reviewing the revenue requirements of the water and wastewater utilities and recommending rate and fee adjustments to the City Manager and the Phoenix City Council. The Water/Wastewater Rate Advisory Committee Technical Subcommittee was further tasked with analyzing the affordability of Phoenix water and wastewater rates and making recommendations based on this analysis.

The Technical Subcommittee of the City of Phoenix Water/Wastewater Rate Advisory Committee approached the issue by:

- Determining a reasonable and standard method to identify segments of the population for whom water and sewer service affordability could be a concern, and
- Based on the determination, setting a measure of affordability that does not create an unsustainable expense for the citizens identified, and
- Based on this calculation of affordability, determining whether existing affordability programs offered by the City are adequate in size and/or successfully target those in need of assistance.

Findings and Results

Phoenix water and sewer rates are some of the lowest of large cities in the United States. Phoenix has very low fixed charges compared to other communities (generally, \$5.50 for water and \$1.00 for sewer for a single-family residence with a 5/8" meter, the predominant meter size for single-family residents in Phoenix). The monthly fixed charge includes a "lifeline" volume of water sufficient to meet basic indoor water needs. A family with a 5/8" meter that stays within the lifeline volume of consumption each month pays only approximately \$6.38 a month for water services and \$8.20 a month for sewer services.

The committee reviewed several different methods for identifying the segments of the population for whom affordability could be a concern, and zeroed in on the calculation called the AR_{20} , which roughly stands for "the affordability ratio calculated at the bottom 20% of household income levels." The calculation is the cost of *basic* water and sewer services as a percentage of the disposable income (total income less essential expenses) at the twentieth income percentile of the community. The calculation measures the percentage of an economically-disadvantaged family's disposable income that is spent on basic water and wastewater services. A higher AR_{20} calculation means that more of a family's disposable income must be spent on water and waste water services. An assumption inherent in the AR_{20} calculation is that the goal of affordability for water and wastewater utilities is to enhance access to these services at a *basic level* necessary for public health, and not for discretionary uses. This assumption is aligned with Phoenix's goals regarding conservation of water.

The Technical Subcommittee compared AR_{20} calculations across the largest U.S. cities. Phoenix's AR_{20} calculation is the lowest at 4.8% while Atlanta's was highest at 28.7%. The average of the 25 largest U.S. cities is 11.4%. Phoenix water rates are not only low but also very affordable compared to other communities across the country.

The subcommittee determined that an AR_{20} calculation of 10% represents a level of affordability that does not create an unsustainable expense for citizens in need. Phrased another way, the subcommittee found that expenditures of 10% of disposable income of a family within the bottom 20th percentile of income on *basic* water and waste water services is a reasonable standard of affordability.

Last, given the City's very low AR_{20} ranking compared to other cities, the low monthly fixed charges, and the inclusion of a "lifeline" amount of water in the monthly fixed charge, it appears as though the City can raise water and sewer rates if necessary to meet revenue requirements while still maintaining acceptable levels of affordability in the community.

Recommendations

Water and wastewater service costs are very low in Phoenix compared to other large cities in the U.S. Nonetheless, a number of families in Phoenix are at or below established poverty levels. It must be remembered that the City Services Bill includes not just water and wastewater service costs but also solid waste services and various City taxes. For a customer that stays within the lifeline block of water consumption, the water and wastewater portion of the City Services Bill makes up only approximately one-third of the total bill.

The City has two programs that were created to help economically-disadvantaged customers with their City Services Bill. The first is a plumbing retrofit program that targets low-income households in older homes. This program is managed by the Water Services Department.

Through this program, older plumbing fixtures are replaced with newer, more water efficient fixtures that reduce customers' water consumption and therefore lower their City Services Bill as well. This program has adequate funding to reach all of the eligible customers that wish to participate in a given year. By identifying geographical areas where high densities of customers exist that meet the screening level of AR₂₀ at 10%, Phoenix is able to assess the relative effectiveness of the plumbing retrofit program. The existing plumbing retrofit program appears to be successfully targeting and helping these customers. No changes to the existing plumbing retrofit program are recommended by the Subcommittee.

The second program is called Project Assist. Through this program, customers that have trouble paying their City Services Bill from current income sources can apply for and receive a credit that is applied to their City Services bill if eligibility criteria are met. Project Assist is managed by the Human Services Department at no cost to the Water Services Department and is funded through contributions from customers, the water and wastewater utilities, and the solid waste utility. Funding from customers varies over time, but generally falls within the range of \$100,000 per year. The water utility contributes \$175,000 per year, the wastewater utility contributes \$105,000 per year, and the solid waste utility contributes \$70,000 per year.

Analysis reviewed by the Subcommittee indicates that the amount of Project Assist funding available to help disadvantaged customers cover their City Services Bill is depleted approximately three to four months before the Fiscal Year ends. In addition, current Project Assist funding levels were set in 1998 and have not been adjusted to keep up with inflation since that time.

There are 50 census tracts within Phoenix with an AR₂₀ of greater than ten percent. Within these tracts, there are approximately 26,194 customers that directly receive a City Services Bill (rather than paying for utilities indirectly through rent). Of these 26,194 customers, 3,032 experienced severances for non-payment of their City Services Bill in FY 2016-17. Project Assist funds reached 2,066 customers. Therefore, the Subcommittee recommends that contributions to Project Assist funds from the City's three utilities be increased to \$600,000 annually. The Subcommittee further recommends that contributions to Project Assist from each of the three utilities be proportional to the ratio of each utility's contribution to the average City Services Bill for participants in the Project Assist program. The water utility should contribute \$235,000, the wastewater utility should contribute \$170,000, and the solid waste utility should contribute \$195,000.

The cost of basic water and sewer services in Phoenix is very low and constitutes only around one-third of the total cost of the City Services Bill. Therefore, the Subcommittee believes that problems customers experience paying for their City Services Bill are likely reflective of the total cost of the City Services Bill, and symptomatic of a problem that at its core is not an issue of affording water and sewer services per se, but rather one of extreme or persistent poverty and the ability to afford City services and taxes in general.

To this point, the Subcommittee further recommends that the City's Human Services Department undertake a review to determine the following:

- The non-profit, religious, and other services that are available to citizens in need that can be prevailed upon for help paying the City Services Bill and addressing poverty issues; and

- Whether citizens in need of assistance with their City Services Bill are best served by the City or by non-profit, private, and religious aid organizations embedded in the community.

Summary

Phoenix Water Services provides for the public health, economic opportunity, and quality of life of residents in our community by delivering safe, clean, water and by safely removing wastewater from homes and businesses. To do so, Phoenix Water must also maintain rates commensurate with the expenses of this undertaking and the citizenry must pay for the services received. The Technical Subcommittee finds that Phoenix Water rates are among the most affordable in the country.

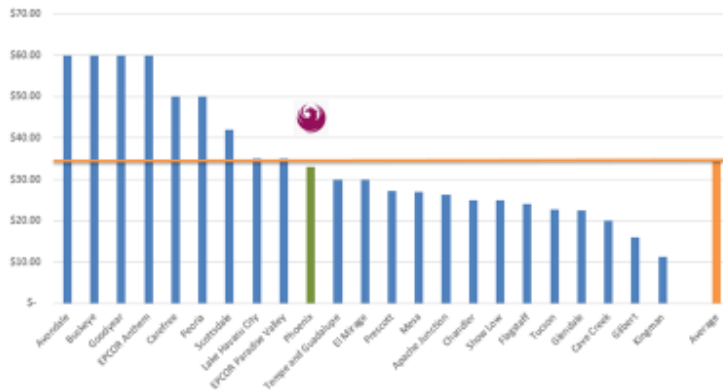
Attachment B



Service activation



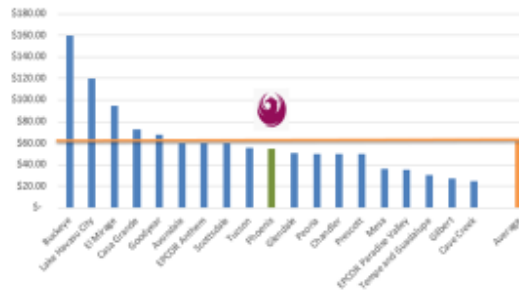
Avondale	\$ 60.00
Buckeye	\$ 60.00
Goodyear	\$ 60.00
EPCOR Anthem	\$ 60.00
Carefree	\$ 50.00
Peoria	\$ 50.00
Scottsdale	\$ 42.00
Lake Havasu City	\$ 35.00
EPCOR Paradise Valley	\$ 35.00
Phoenix	\$ 33.00
Tempe and Guadalupe	\$ 30.00
El Mirage	\$ 30.00
Prescott	\$ 27.28
Mesa	\$ 27.00
Apache Junction	\$ 26.21
Chandler	\$ 25.00
Show Low	\$ 25.00
Flagstaff	\$ 24.00
Tucson	\$ 22.69
Glendale	\$ 22.39
Cave Creek	\$ 20.00
Gilbert	\$ 16.00
Kingman	\$ 11.38
Average	\$ 34.43



Delinquent turn off, reconnect, or both



Buckeye	\$160.00	\$100 reconnect, \$60 collection fee
Lake Havasu City	\$120.00	\$70 reconnect, \$50 deposit for reconnect
El Mirage	\$95.00	processing fee for reinstatement
Casa Grande	\$73.00	\$35 turn off, \$35 turn on
Goodyear	\$68.00	\$50 administrative fee, \$18 disconnect fee
Avondale	\$60.00	\$60 turn on, \$250 deposit required
EPCOR Anthem	\$60.00	reconnection
Scottsdale	\$59.43	"penalty"
Tucson	\$55.52	\$55.52 for lock, \$11.25 mailed notice
Phoenix	\$55.00	turn off
Glendale	\$50.35	delinquent account fee
Peoria	\$50.00	delinquent bill process fee
Chandler	\$50.00	\$20 turn off, \$30 reconnect
Prescott	\$50.00	turn on
Mesa	\$36.00	\$3 for letter, \$17 for disconnect, \$16 for reconnect
EPCOR Paradise Valley	\$35.00	reconnection
Tempe and Guadalupe	\$30.00	reconnection
Gilbert	\$27.00	reconnection
Cave Creek	\$25.00	reconnection
Average	\$ 61.02	

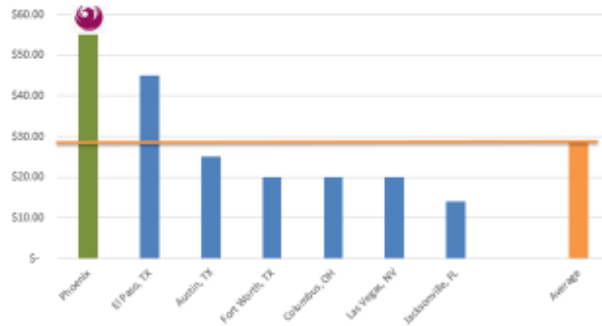


Delinquent turn off, reconnect, or both



Phoenix	\$ 55.00	disconnect
El Paso, TX	\$ 45.00	20 disconnect, 25 reconnect
Austin, TX	\$ 25.00	reconnect
Fort Worth, TX	\$ 20.00	reconnect
Columbus, OH	\$ 20.00	reconnect
Las Vegas, NV	\$ 20.00	disconnect
Jacksonville, FL	\$ 14.00	reconnect

Average \$ 28.43



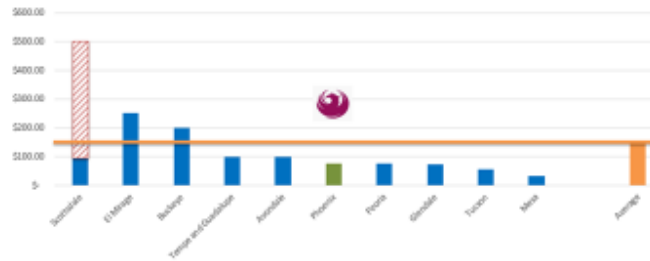
Anti-theft device or tampering



Scottsdale	\$500.00	At cost from \$100 to \$500
El Mirage	\$250.00	plus labor, materials, 15% admin costs
Buckeye	\$200.00	plus cost of tampering
Tempe and Guadalupe	\$100.00	
Avondale	\$100.00	
Phoenix	\$ 77.00	
Peoria	\$ 75.00	
Glendale	\$ 72.76	
Tucson	\$ 55.52	
Mesa	\$ 32.00	

Average \$146.23

Other Values:
EPCOR Paradise Valley up to three times cost of tampering
EPCOR Anthem up to three times cost of tampering



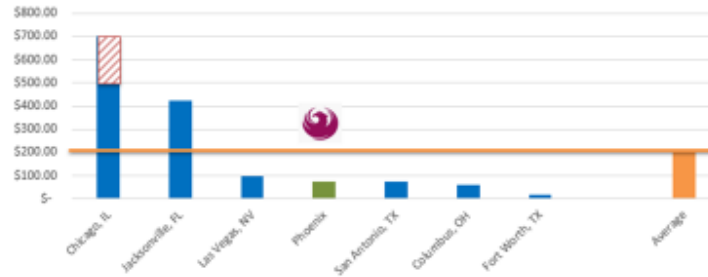
Anti-theft device or tampering



Chicago, IL	\$ 700.00	\$500 to \$700 tampering
Jacksonville, FL	\$ 425.00	greater of \$225 or actual cost of meter reset, \$200 tampering
Las Vegas, NV	\$ 100.00	
Phoenix	\$ 77.00	
San Antonio, TX	\$ 76.47	effective in 2020
Columbus, OH	\$ 60.00	tampering
Fort Worth, TX	\$ 20.00	

Average \$ 208.35

Other Values:
Houston, TX at cost



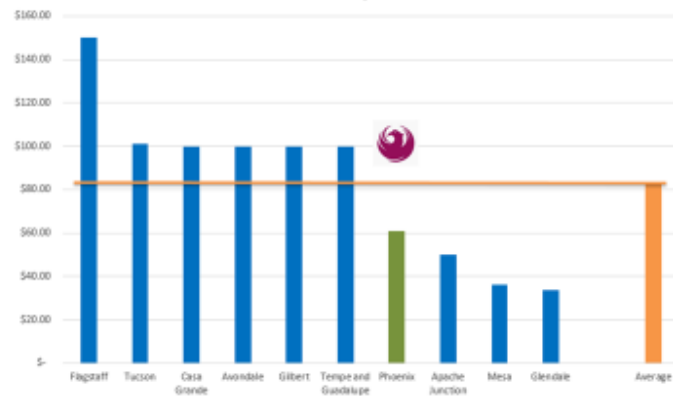
Broken meter lock



Flagstaff	\$ 150.00
Tucson	\$ 101.00
Casa Grande	\$ 100.00
Avondale	\$ 100.00
Gilbert	\$ 100.00
Tempe and Guadalupe	\$ 100.00
Phoenix	\$ 61.00
Apache Junction	\$ 50.00
Mesa	\$ 36.00
Glendale	\$ 33.58

Average \$ 83.16

Other Values:
Kingman cost of lock



Broken meter lock



Las Vegas, NV	\$ 100.00	
Phoenix	\$ 61.00	🔴
San Antonio, TX	\$ 47.14	effective in 2020
Fort Worth, TX	\$ 25.00	
San Francisco, CA	\$ 21.00	
Average	\$ 50.83	
Other Values		
Houston, TX	at cost	



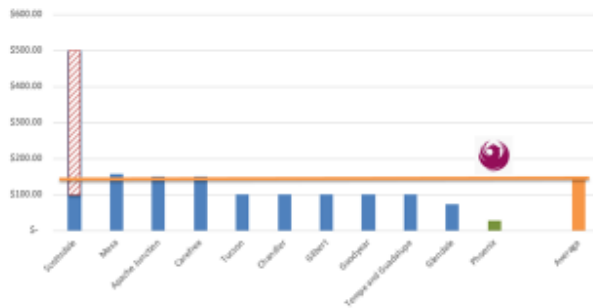
Unauthorized water use



Scottsdale	\$ 500.00	\$100 to \$500
Mesa	\$ 158.00	
Apache Junction	\$ 150.00	
Carefree	\$ 150.00	
Tucson	\$ 101.00	
Chandler	\$ 100.00	
Gilbert	\$ 100.00	
Goodyear	\$ 100.00	
Tempe and Guadalupe	\$ 100.00	
Glendale	\$ 72.76	
Phoenix	\$ 28.00	🔴
Average	\$ 141.80	

Other Values:

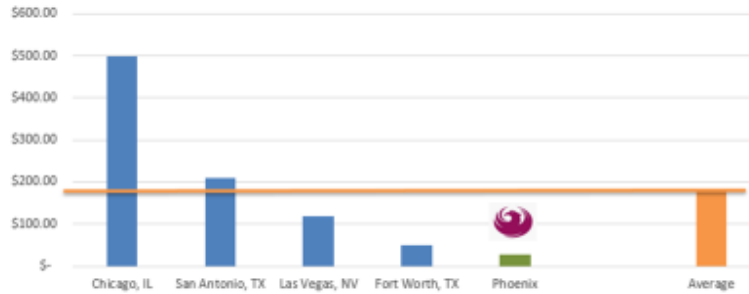
Flagstaff two times system capacity and resource fees



Unauthorized water use



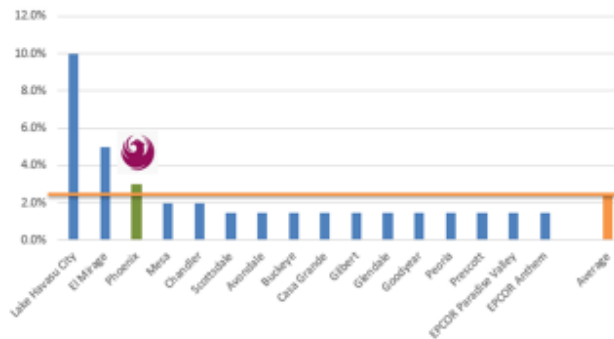
Chicago, IL	\$ 500.00	
San Antonio, TX	\$ 210.00	\$175 to cap, \$25 meter reinstall, \$10 turn on, effective in 2020
Las Vegas, NV	\$ 120.00	\$100, plus \$20 reactivation
Fort Worth, TX	\$ 50.00	
Phoenix	\$ 28.00	
Average	\$ 181.60	



Late payment



Lake Havasu City	10.0%	
El Mirage	5.0%	
Phoenix	3.0%	
Mesa	2.0%	with \$5 minimum
Chandler	2.0%	
Scottsdale	1.5%	with \$5 minimum
Avondale	1.5%	
Buckeye	1.5%	
Casa Grande	1.5%	
Gilbert	1.5%	with \$5 minimum
Glendale	1.5%	
Goodyear	1.5%	
Peoria	1.5%	
Prescott	1.5%	
EPCOR Paradise Valley	1.5%	
EPCOR Anthem	1.5%	



Other Values:

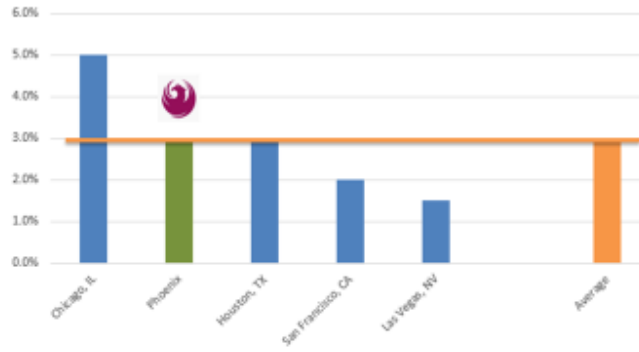
Flagstaff	\$5
Kingman	\$3 after due date and \$28.17 after disconnection
Show Low	\$10 after 10 days
Apache Junction	\$10
Tempe and Guadalupe	1% plus 15 dollars after 36 days
Carefree	1.5% plus \$7
Tucson	\$11.25



Late payment



Chicago, IL	5.0%
Phoenix	3.0%
Houston, TX	3.0%
San Francisco, CA	2.0%
Las Vegas, NV	1.5%
Average	2.9%
Other Values:	
San Antonio, TX	2.0% with \$5 minimum
Charlotte, NC	1.5% with \$5 minimum

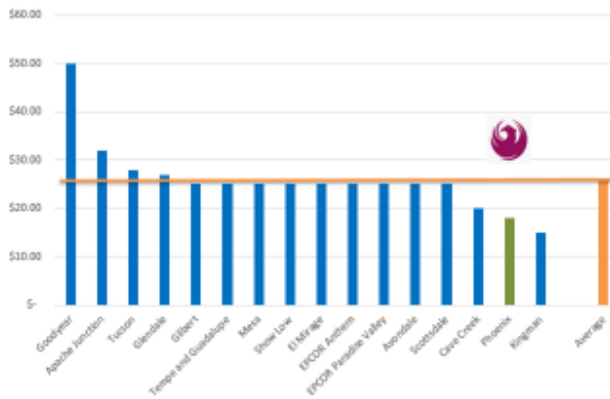


Nonsufficient funds check



Goodyear	\$ 50.00
Apache Junction	\$ 32.00
Tucson	\$ 28.00
Glendale	\$ 26.96
Gilbert	\$ 25.00
Tempe and Guadalupe	\$ 25.00
Mesa	\$ 25.00
Show Low	\$ 25.00
El Mirage	\$ 25.00
EPCOR Anthem	\$ 25.00
EPCOR Paradise Valley	\$ 25.00
Avondale	\$ 25.00
Scottsdale	\$ 25.00
Cave Creek	\$ 20.00
Phoenix	\$ 18.00
Kingman	\$ 15.00
Average	\$ 25.94

Other Values:
Casa Grande bank charges
Carefree bank charges

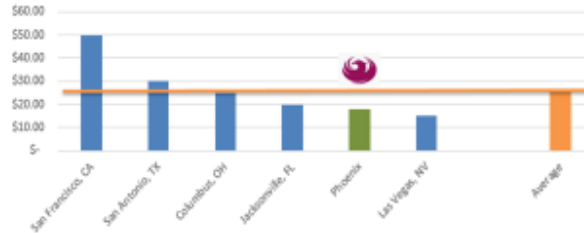


Nonsufficient funds check



San Francisco, CA	\$ 50.00
San Antonio, TX	\$ 30.00
Columbus, OH	\$ 25.00
Jacksonville, FL	\$ 20.00
Phoenix	\$ 18.00
Las Vegas, NV	\$ 15.00
Average	\$ 26.33

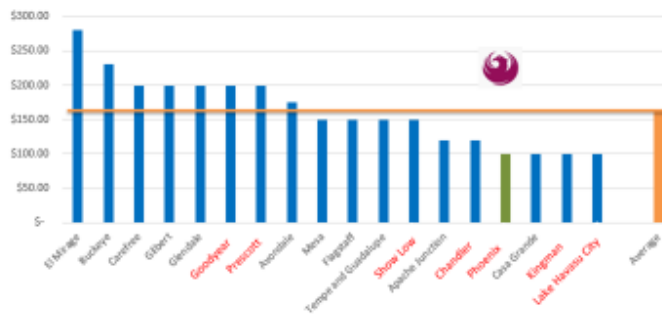
effective in 2020



Security deposit



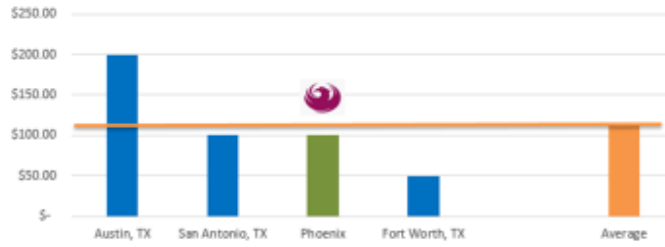
El Mirage	\$280.00
Buckeye	\$230.00
Carefree	\$200.00
Gilbert	\$200.00
Glendale	\$200.00
Goodyear	\$200.00
Prescott	\$200.00
Avondale	\$175.00 \$250 after delinquency
Mesa	\$150.00
Flagstaff	\$150.00
Tempe and Guadalupe	\$150.00 renters only
Show Low	\$150.00
Apache Junction	\$120.00
Chandler	\$120.00
Phoenix	\$100.00
Casa Grande	\$100.00
Kingman	\$100.00
Lake Havasu City	\$100.00
Average	\$162.50



Cities marked in red will waive deposit if good credit history documentation is provided



Security deposit



Austin, TX \$200.00 if bad credit history
 San Antonio, TX \$100.11 effective in 2020
 Phoenix \$100.00 
 Fort Worth, TX \$ 50.00
 Average \$112.53

Other Values:
 San Francisco, CA greater of \$105 or estimate of two months charges
 Indianapolis, IN not less than \$40 and not more than estimate of three months usage
 Las Vegas, NV \$150 or 2.5 highest monthly whichever is higher

