



Village of Phoenix, IL

Water Affordability Analysis and Action Plan

OCTOBER 2025

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About Alliance for Water Efficiency

Alliance for Water Efficiency (AWE) is a nonprofit dedicated to the efficient and sustainable use of water across North America. Based in Chicago, IL, AWE advocates for water efficient products and programs, and provides information and assistance on water conservation efforts. AWE works with more than 550 member organizations, providing benefit to water utilities, business and industry, government agencies, environmental and energy advocates, universities, and consumers.

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Executive Summary

Equitable access to clean water is a challenge faced by small communities across the United States. In a recent study focused on the City of Chicago¹, water affordability challenges were shown to be disproportionately weighted in low-income communities where the accrual of water bill-related debt increases financial instability over time. The Village of Phoenix, a City of Chicago suburb, faces some of these same systemic challenges. This report provides the Village of Phoenix leaders with a qualitative investigation of resident experience and quantitative analysis of residential water use and costs to understand the Village's unique challenges regarding residential water affordability. Strategies and recommendations to make water more affordable for Phoenix residents are rooted in community perspectives, municipal priorities, and quantitative data analysis. This work was supported by the Cook County Bureau of Economic Development in partnership with Elevate through the Cook County Water Affordability Program. As part of this three-component program, this report aims to identify localized water affordability strategies for the Village of Phoenix through (1) billing and water consumption data analysis, (2) community engagement, and (3) informed affordability recommendations.

Billing & Water Consumption Analyses

Water consumption and water cost balances for Village of Phoenix active accounts during the August – September 2025 billing period were analyzed to identify patterns relating to water affordability challenges. This analysis focused on active residential accounts. The water cost balance (\$) on the account was reflective of the balance 17 days after bill rendering, and active residential accounts were grouped by overpaid (balance < \$0), paid (balance = \$0), and outstanding (balance > \$0) for analysis.

Spatial representation of water consumption and account balances demonstrated that elevated water consumption patterns and outstanding balances were distributed throughout the community. Extreme water consumption was indicative of a leak or other unexpected high water use but did not always correspond to an outstanding balance.

Calculated water costs based on the current rate structure suggested that most outstanding balance accounts have debt accrued from previous billing periods.

August – September period water consumption values did not align with the balance on outstanding accounts suggesting that long-term financial hardship may contribute to an inability to pay water costs on time and in full.

¹ Gore, A., Sharrow, L., & Keller, J. (2022). *City of Chicago Water Affordability Analysis City of Chicago Water Affordability Report*.

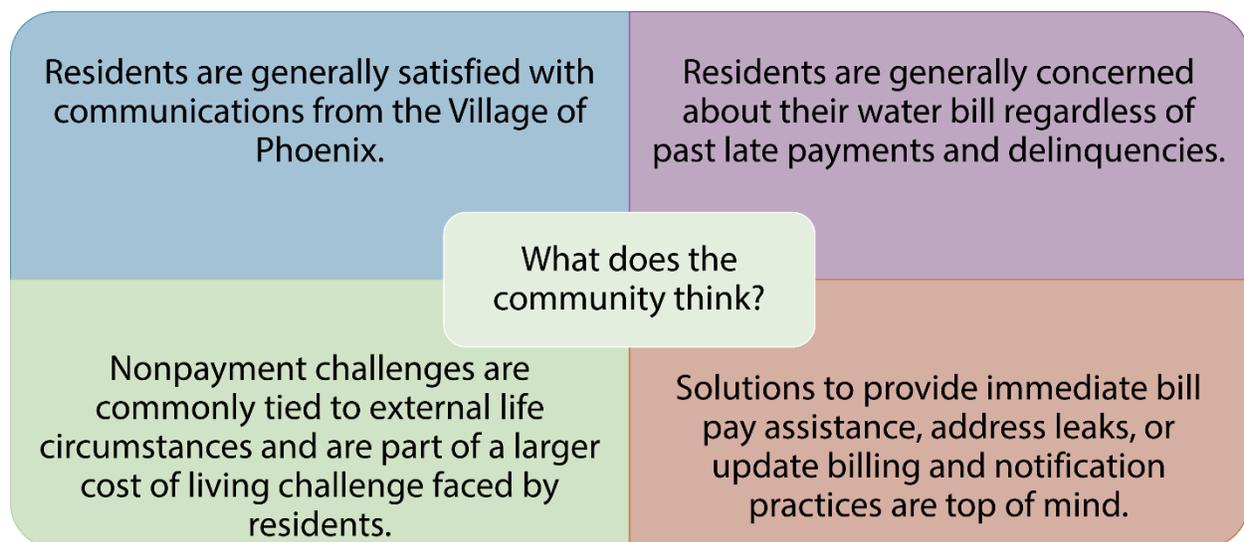
Community and Municipal Perspectives

The goal for community outreach and engagement was to gather insights from residents and Village staff on water use, billing, and affordability; and to integrate community and staff perspectives into the analysis and action plan.

Engagement strategies included:

- **Interviews with Village staff** and residents to understand individual perspectives, opportunities, challenges, and priorities relating to water affordability in Phoenix.
- **An online resident survey** to gather insights into nature of water affordability challenges residents are facing and ideas for solutions.

Below are key themes and takeaways that emerged from community engagement. These themes are outlined in more detail in [Section 4](#) of this report and were used to inform study recommendations.



Recommendations & Action Plan

Based on the quantitative analysis and community and municipal engagement outcomes, this report outlines recommendations for policy and programmatic recommendations tailored to the Village of Phoenix's unique water affordability challenges.

Recommendations are categorized into five intervention strategies. Each recommendation includes rationale based on the analysis and industry best practices, implementation considerations, timeline, and level of priority. A full list of recommendations is provided in the table below. More detail is provided on each recommendation in [Section 5](#) of this report.

Intervention Strategy Category		Implementation Timeframe		
1	Customer Service, Outreach, and Engagement	ST	MT	LT
1.1	Develop a dedicated water affordability webpage on the Village website to provide residents with access to education and resources relating to water bills, water use management, and assistance opportunities.	X		
1.2	Develop and implement a resident outreach campaign to promote the Village's new EyeOnWater.	X		
1.3	Implement a water affordability outreach campaign to educate residents on water bill and use management, including one-on-one communications, a series of workshops, and investing in community partnerships focused on water affordability.		X	
2	Operations and Data Management	ST	MT	LT
2.1	Streamline the Village's internal data management and record keeping systems to align with AMI and EyeOnWater consumption metrics and leak notifications.		X	X
3	Water Conservation and Resident Leakage	ST	MT	LT
3.1	Continue partnering with Elevate to advertise and enroll qualifying residents in the Cook County Leak Repair Program.	X		
3.2	Leverage EyeOnWater information and AMI data to evaluate community water-related challenges and needs to create programs that address issues and concerns.			X
4	Water Rates and Billing Practices	ST	MT	LT
4.1	Monitor rate structure implementation, conduct a financial review, and seek community feedback to determine if the revised rate structure successfully addressed the Village's water cost needs in an equitable fashion.	X		
5	Water Bill Burden and Debt	ST	MT	LT
5.1	Review and update notification processes for late payments penalties and delinquent account shut off warning notices.		X	X
5.2	Evaluate community needs to develop tailored assistance and affordability programs.		X	X
5.3	Provide partial relief to customers that experience extraordinary water charges due to hidden leaks, line breaks, or circumstances outside of the reasonable control of the account holder.			X

1. Introduction

Purpose

This report provides the Village of Phoenix staff and elected officials with a quantitative and qualitative analysis of residential water use and billing to understand challenges regarding residential water affordability and to identify tailored strategies for making water more affordable.

Cook County Water Affordability Program

In August 2024, the Cook County Bureau of Economic Development launched the Cook County Water Affordability Program in partnership with Elevate, which aims to provide “immediate relief to suburban Cook County residents struggling with water costs while creating long-term solutions for water affordability in the region.”¹ The program is tackling water affordability in the region through three main components: (1) Water Affordability Technical Assistance, (2) Water Bill Relief, and (3) Leak Repair.

The Water Affordability Technical Assistance Program (Cook County TAP) supports suburban municipalities in understanding the extent and nature of water affordability issues within their communities. Through an analysis of water use and billing data, this component of the Cook County Water Affordability Program identifies localized water affordability strategies and provides recommendations to inform relief strategies and customer assistance efforts.

As part of Cook County TAP, Alliance for Water Efficiency (AWE) provided technical assistance to two suburban Cook County municipalities. This report details work conducted in partnership and on behalf of the Village of Phoenix, IL.

Scope

The Water Affordability Action Plan for the Village of Phoenix draws on census, water consumption, and billing data to assess the scope of affordability challenges across different customer types. In addition, the plan summarizes outcomes from outreach and engagement with municipal staff and residents, shedding light on the lived experiences of the Phoenix community. This combination of quantitative and qualitative analysis emphasizes recommendations that are data-driven as well as being suitable and responsive to local needs.

With funding and coordination support from Elevate, Alliance for Water Efficiency entered a partnership with Village of Phoenix to complete the following tasks as part of the Cook County TAP: (1) Data Collection; (2) Data Analysis; (3) Recommendations.

2. Village of Phoenix Background

Overview

Spanning roughly nine blocks, the Village of Phoenix, Illinois, is situated along the Little Calumet River in southern Cook County, about 19 miles south of downtown Chicago. The Village is bordered by Harvey to the north and west and South Holland to the east and south (Chicago Historical Society 2005).

Originally settled in the 1890s, Phoenix began as a small residential area for factory and railroad workers employed in nearby Harvey. The Village was officially incorporated in 1900, following disputes during the Prohibition era that prompted its separation from Harvey. During the early 1920s, Phoenix became home to a growing African American population—many of whom had migrated from Chicago or the South to work in local steel mills. Over time, demographic shifts led to tensions within the community, and in the 1960s, the predominantly white residents in the southern portion of Phoenix voted to de-annex, resulting in the loss of about one-third of the Village’s population and 60 percent of its tax base.

Today, Phoenix operates as a small municipality governed by a mayor, clerk, and board of trustees, providing essential services such as police, fire, and public works. Guided by its motto, “A Spirit of Friendship, That Welcomes You,” Phoenix continues to emphasize community pride, neighborly connection, and efforts to revitalize and strengthen the Village for current and future residents (Village of Phoenix 2025a).

Demographics & Trends

According to the 2019-2023 American Community Survey, the Village of Phoenix, Illinois, has a population of 1,284 residents with a median age of 47.5 (Chicago Metropolitan Agency for Planning 2024). The community is predominantly Black (Non-Hispanic), comprising approximately 75.9% of the population, followed by Hispanic or Latino residents making up 21.6%. Over time, Phoenix’s population has shifted, declining by about 40.5% since 2000. The population is also aging. In 2023, 24.1% of the population was 65 and over, compared to 15.7% in 2000. At the same time, ages 19 and under have decreased by around 11.5%. Approximately 45% of the population either have a High School Diploma or less, 16% hold an associate’s degree, and 3.8% of residents hold a bachelor’s degree.

Furthermore, household income and employment provide insight into residents’ ability to manage their water bills. The median household income is \$25,703, down from \$39,908 a decade earlier and about 69% below the countywide median. About half of households

earn less than \$25,000 annually. The unemployment rate is 23.3%, which has fallen by 4.5% since 2009.

Housing patterns highlight cost of living trends over time. 62.5% of households own their homes, and 37.5% rent. Single-family homes account for a majority of the housing stock, and the median household was built in 1962. Among those earning under \$20,000, 26.3% spend 30% or more of their income on housing, compared with just 1.5% for households earning \$75,000 or more. This highlights an equity challenge, as lower-income households allocate a much larger share of their limited resources to housing (Chicago Metropolitan Agency for Planning 2024).

Community Initiatives & Assets

Community and Economic Development Association of Cook County (CEDA)

The Community and Economic Development Association of Cook County (CEDA) is a nonprofit community action agency that provides social services and economic support to Cook County residents in need. Services include utility bill assistance; home weatherization; housing services; support to women, infants, and children; case management; and other short-term family assistance services (Cook County Government 2022).

In 2022, CEDA implemented the Low-Income Household Water Assistance Program (LIHWAP) across Cook County, which provided financial assistance and relief to low-income households with challenges regarding water and wastewater bills, including households that were disconnected, facing disconnection, or had past due balances of at least \$250 (Cook County Government 2022).

Communications and Resources

The Village of Phoenix seeks opportunities to connect with residents and share information about municipal services. Two notable examples include the Village’s “Phoenix Rising” Newsletter and their TextByChoice platform. These assets relate particularly to recommendations in [Intervention Strategy 1: Customer Service, Outreach and Engagement](#).

The “Phoenix Rising” Newsletter, published yearly, is an opportunity for the Village to share municipal updates, resources, and celebrate successes with residents. The image below shows water savings tips that were included in the latest 2024-2025 publication.

◆ **Smart Water-Saving Tips to Lower Your Bill**

- ◆ **Fix Leaks Immediately** – Even a small drip can waste thousands of gallons of water over time. Use EyeOnWater to monitor usage and detect leaks early.
- ◆ **Upgrade to Water-Efficient Fixtures** – Install low-flow showerheads, faucets, and toilets to cut down on unnecessary water use.
- ◆ **Use Smart Irrigation** – Water your lawn early in the morning or late in the evening to reduce evaporation and maximize efficiency.
- ◆ **Run Full Loads** – Only run dishwashers and washing machines with full loads to save both water and energy.
- ◆ **Turn Off Water When Not in Use** – Don't let the water run while brushing your teeth, shaving, or washing dishes. Small changes add up to big savings!

Together, we can **protect our water resources, lower costs, and build a stronger water system for our community**. Thank you for staying engaged—I look forward to working with you!

Erik McCullar
Water Trustee



The Village of Phoenix uses TextByChoice, a cloud-based SMS communication platform, to send municipal updates directly to residents who have opted in to receive notifications. This platform allows the Village to quickly share information to a group of subscribing residents via text message, including service alerts, event reminders, and community announcements.

EyeOnWater Leak Alert Program

In 2024, the Village of Phoenix partnered with Badger Meter and Elevate to launch and implement a new EyeOnWater Leak Alert program to assist residents in detecting water leaks early and manage water bills more effectively. This free service enables users to monitor their water usage in real time and set up automatic leak alerts when their water use goes beyond certain threshold. By identifying leaks promptly, residents can prevent unexpected high water bills and reduce water waste. To enroll, residents can visit the EyeOnWater website and create an account by providing their address and contact information. As part of this initiative, the Village has conducted an outreach campaign to get residents enrolled in the EyeOnWater customer portal, which was ongoing during the time of this study. Thirty account holders were signed up for EyeOnWater as of September 2025. This successful partnership was published in the Harvey World Herald (Davis, 2025).

Water in Phoenix

Source Water

The Village of Phoenix purchases surface water from Lake Michigan through the City of Chicago. The total surface water withdrawal for the Village of Phoenix increased 27.2% from 0.18 million gallons per day (MDG) in 2008 to 0.23 MGD in 2018 (Chicago

Metropolitan Agency for Planning 2024). Over the same period, the gallons per capita per day (GPCD) increased from 90.9 to 129.9 GPCD. This was a 42.9% increase compared to an overall average of 18.2% decrease observed in the Chicago Metropolitan district. In 2018, the average Chicago Metropolitan district GPCD was 116.8 GPCD (Chicago Metropolitan Agency for Planning 2024). The Village of Phoenix has a combined sewer system that collected stormwater runoff, domestic sewage, and industrial wastewater to clean and/or return water to the surface water systems (Center for Neighborhood Technology 2023).

Water Loss

Of the surface water sourced, approximately 12.4% was lost as nonrevenue water as of 2017, where nonrevenue water is the difference between total water supplied and authorized water consumption that is billed. This value translated to 0.03 MGD and an estimated annual cost of \$35,384 GPCD (Chicago Metropolitan Agency for Planning 2024).

Water Billing & Rates

Water Billing

Village of Phoenix has a monthly water utility billing period. Customers are sent bills every 30 days, and all water charges are due within 10 days of when the bill was rendered. If water charges are not paid in that period, a 10% penalty fee is added to the bill. If a bill is not paid within 30 days of rendering it is considered delinquent, at risk for shut off, and a lien may be filed against the account property. Water services may only be resumed once all arrearages, including original charges, penalties, and delinquent fees, have been paid.

Water Rates

In February 2024, the Village of Phoenix updated their water rates for residential customers. Previous rates were established in September 2017, where the cost of water for the first 2,000 gallons was \$29.65 (fixed rate, minimum monthly charge) with an additional uniform rate charge \$12.57 for every additional 1,000 gallons or a fraction of this value (Village of Phoenix 2021). The Ordinance stated that additional charges by the supplier of the water may be added to the bill.

The revised rate structure in 2024 mirrored the structure of the 2017 rates. The revision involved an increase to the fixed rate of \$39.22 for the first 2,000 gallons plus an increase to the uniform rate of \$16.63 for every additional 1,000 gallons or fraction of this value. In addition to these charges “and increases charge by the supplier of water to the Village” may be added to the rate (Village of Phoenix, 2024). This was a 32% increase from previous rates for residential customers. Business water rates were greater than residential rates, where the cost of the first 2,000 gallons per bill was \$40.39 and a uniform rate of \$17.13

was charged for each additional 1,000 gallons or fraction of 1,000 gallons. This was a 36% increase from previous rates for business customers.

Ordinance 01092024C stated that in May 2025 these rates will be set to increase by 5%. An increase in 5% would result in residential rate charges of \$41.18 for the first 2,000 gallons and an additional \$17.46 for every 1,000 gallons. The Business rates would increase to \$42.41 and \$17.99, respectively (Village of Phoenix, 2024).

These increased rates were delayed until the October 2025 billing cycle. A notice in summer of 2025 to Village of Phoenix residents state that the increase rates would be effective as of August 1, 2025. However, Village staff stated that the rates did not go into effect until October billing. The notice also provided garbage collection fees buy number of cans. Cost of one can is \$29.46, cost of two cans is \$34.76, and cost of three cans \$37.30.

The notice shared an explanation of why the increase rates are necessary. Rationale included cost of services increase with time due to increase energy costs, the need to invest in infrastructure improvements, and inflation (Village of Phoenix 2025b).

Related Policies & Ordinances

Meter Maintenance

The cost of routine maintenance of meters is covered by the Village of Phoenix. However, the account holder is responsible for meter maintenance for damage due to freezing, hot water or theft. Costs include the water lost and damage to the meter. This shall be a lien against the property until paid.

Village Programs

Village of Phoenix water-related programs include the new [EyeOnWater Leak Alert](#) program and TextByChoice platform, which allows the Village to efficiently share water related information in addition to other important Village information.

3. Water Use & Affordability Analysis

Methods

Data Collection

The Village of Phoenix provided account billing data in the form of the current balance of water charges and corresponding water consumption (gallons) for 630 accounts. The Village classifies accounts as either residential or business accounts. These data were provided for one billing cycle, which was rendered on September 8, 2025. All account balances reflected the date on which the report was pulled, September 25, 2025. The billing information was gathered from the system 17 days after the water bill was rendered. Water bill account balance information only referred to the cost of water. Account balances were negative if overpaid, zero if paid, and positive if outstanding.

In addition to data received from the Village of Phoenix, census data for track 8272 was used for demographic analysis. Census datasets to inform analyses and interpretation included Table B19080 and B25008 (U.S. Census Bureau and U.S. Department of Commerce 2023a; 2023b)

Data Organization & Cleaning

The Village of Phoenix provided account balances for water cost and consumption data for the bills rendered on September 8, 2025. Accounts were separated into business and residential accounts. Table 1 shows the division of accounts by type and activity. The majority of accounts were active, residential accounts. Inactive accounts were determined by the last bill date, meaning iff the last bill date was not September 8, 2025 the account was considered inactive. This interpretation was discussed and agreed upon by Village of Phoenix staff. The analyses in this report primarily focuses on active, residential accounts.

Table 1. Village of Phoenix accounts by type and descriptor for September 8, 2025 water charges. Count indicates the raw number of accounts in each category for all business and residential accounts and corresponding active or inactive accounts. The percentage associated with each count value is relative to the total number of accounts charged for water services (630).

Account Type & Descriptor	Count (Percent of Total Accounts)
Business	17 (3%)
Active	17 (3%)
Inactive	0 (0%)
Residential	613 (97%)
Active	585 (93%)
Inactive	28 (4%)

Since the balance of water charges bill was pulled on September 25, some of the account holders had previously paid their bill. All active residential and business accounts were separated into accounts that had overpaid, indicated by a negative balance, accounts that had paid their full water charges, indicated by a zero balance, and have outstanding water charges, indicated by a positive balance.

Methods of Analysis

Water Cost Balances & Consumption

Accounts were analyzed by account type (business, residential) and descriptor (active, inactive). The average, median, 25-percentile (25%), and 75-percentile (75%) water costs balances and August – September bill period consumption values were calculated for inactive, active business, and active residential accounts. Residential accounts were further separated into overpaid, paid, and outstanding balance accounts. These water charge data from active residential accounts were used to calculate the Household Burden Indicator (HBI) for the Village of Phoenix.

The HBI is the annual water and wastewater bills as a percentile of household income for a given census tract. This metric can be used to demonstrate how water utility bills impact the most financially vulnerable households. The HBI is calculated by

$$HBI = \frac{\textit{Average Annual Household Water and Wastewater Bill}}{\textit{Upper Boundary of Lowest Quintile Income}}$$

where, in this study, the average annual household water and wastewater bill was replaced with the calculated cost of water based on February 2024 water rates (Village of Phoenix, 2024). The equation used to calculate an HBI for the Village of Phoenix was:

$$HBI = \frac{\textit{Average Calculated Cost of Water} \times 12 \textit{ months}}{\textit{Upper Boundary of Lowest Quintile Income}}$$

where the calculated cost of water was determined for all active residential accounts in the August – September billing period, averaged, and multiplied by 12 months to provide an average annual household water cost. The upper boundary of the lowest quintile income was obtained for the four census tracks within the municipal boundary of Phoenix, IL from the U.S Census Bureau (2023a).

Account Delinquency

Balance data were also used to investigate account delinquency. Although only one billing cycle was provided, the water costs associated with outstanding balance accounts were compared to a calculation of the anticipated water costs based on the February 2024

residential and business rate structures. Balance associated with residential water costs were calculated by:

$$Water\ Cost_{Resident} = \left(\frac{(Total\ consumption\ (gal) - 2,000\ gal)}{1,000\ gal} \times \$16.63 + \$39.22 \right)$$

where \$16.63 was the rate per every 1,000 gallons greater than 2,000 gallons consumed and \$39.22 was the rate for the first 2,000 gallons. For accounts that used less than 2,000 gallons in the last billing period, \$39.22 was applied to the account. Dollar values could also be multiplied by 1.10 because an additional 10% is added to the water charges if the costs are not paid within 10 days of rendering. This 10% penalty was not reflected in the data provided. The report with outstanding balance was pulled on September 25, which was 17 days after rendering.

A similar process was conducted for business accounts with business rates from February 2024 rate update

$$Water\ Cost_{Business} = \left(\frac{(Total\ consumption\ (gal) - 2,000\ gal)}{1,000\ gal} \times \$17.13 + 40.39 \right)$$

where \$17.13 was the rate per every 1,000 gallons greater than 2,000 gallons consumed and \$40.39 was the rate for the first 2,000 gallons. For accounts that used less than 2,000 gallons in the last billing period, \$40.39 was applied to the account.

The proportion of delinquent accounts was estimated based on a comparison of the outstanding balance to the calculated water cost based on rate structure. If the outstanding balance was greater than the calculated rate, this was an indication account delinquency from the previous bill. This calculation was based solely on the formal rate structure and did not take into account of “increases charge by the supplier of water to the Village” that are noted in Ordinance 01092024C (Village of Phoenix, 2024). If the balance on the account was two times the value of the calculated water cost it was assumed to be accrued debt. This conservative threshold was used to identify the prevalence of long-term financial hardship and residents’ ability to pay water bills.

Spatial Analyses

Spatial representation of data was conducted in ArcGIS Pro. Census tract boundary, Cook County boundaries, and Village of Phoenix municipal boundary data were accessed from the U.S. Census Bureau (2024) and Cook County Government (2025). All active residential and business accounts were plotted in ArcGIS. Active residential accounts were used to generate heatmaps of water consumption and cost balances. Points were interpolated using a Spline with Barriers tool and bilinear resampling to interpolate from surrounding

cells and smooth the heatmap lines. Water consumption and water cost balance data were represented in a heatmap fashion to show the distribution of water consumption and cost balance across the community without displaying individual data. Maps were projected in NAD 1983 State Plane Illinois East FIPS 1201 (US Feet).

Analyses

Water affordability analyses were focused on active residential accounts. Business accounts and inactive residential accounts were also analyzed. This section includes three subsections: [Water Consumption](#), [Water Cost Balance](#), and [Delinquent Accounts](#). Figure 1 shows the municipal boundaries of Phoenix and the corresponding residential and business accounts that will be focused on in the water use and affordability analyses.

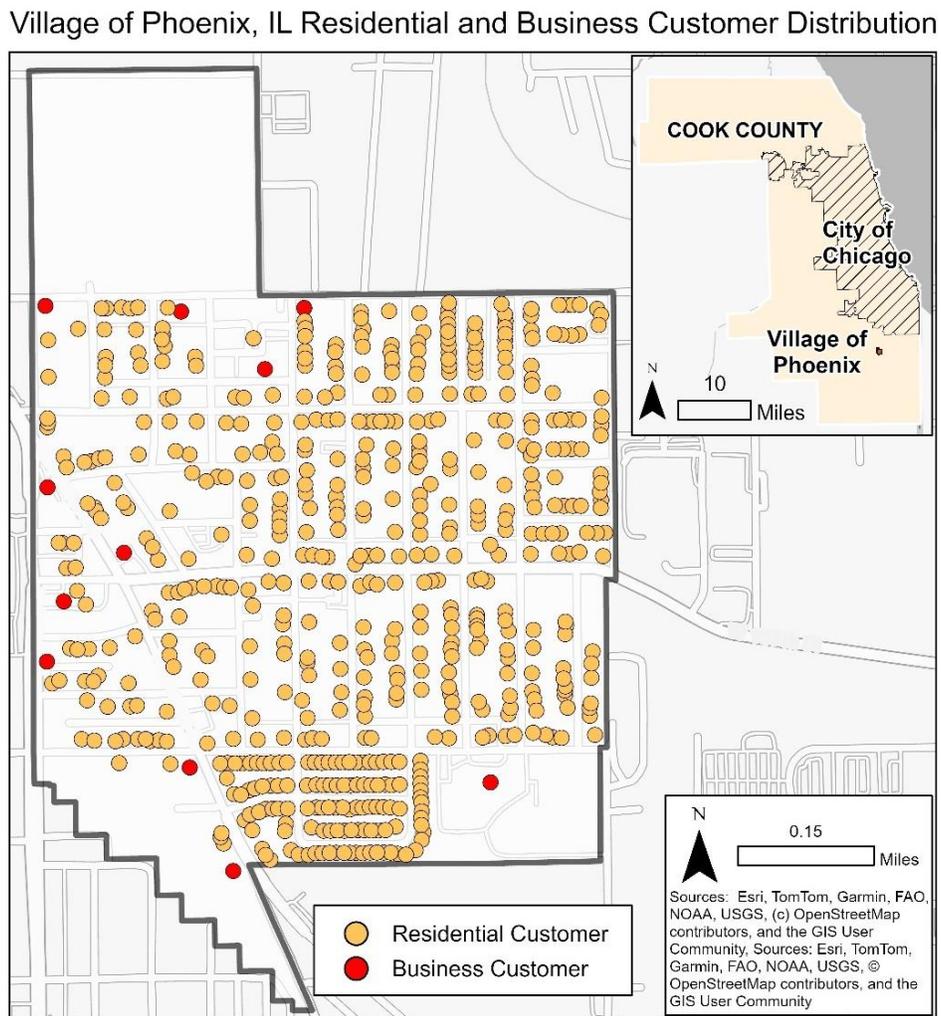


Figure 1. (a) Map of Phoenix, IL showing the extent of active residential and business customers included in the water consumption and water cost balance analyses. (b) Map of Cook County, IL including the City of Chicago limits and Village of Phoenix.

Water Consumption

Active Business & Residential Accounts

Water Consumption was measured for active business and residential accounts. On average, business accounts used three times the amount of water as residential accounts. The distribution of water use is shown in Figure 2. The 'x' in each boxplot reflects the average account water consumption for each group. The box represents the water consumption of 25% – 75% of active accounts, and the line in the middle of the box represents the median (50%) consumption value among business and residential accounts. The whiskers represent 1.5 times the interquartile (the box) range. Outliers beyond this range are represented by data points and can be considered extreme water consumption.

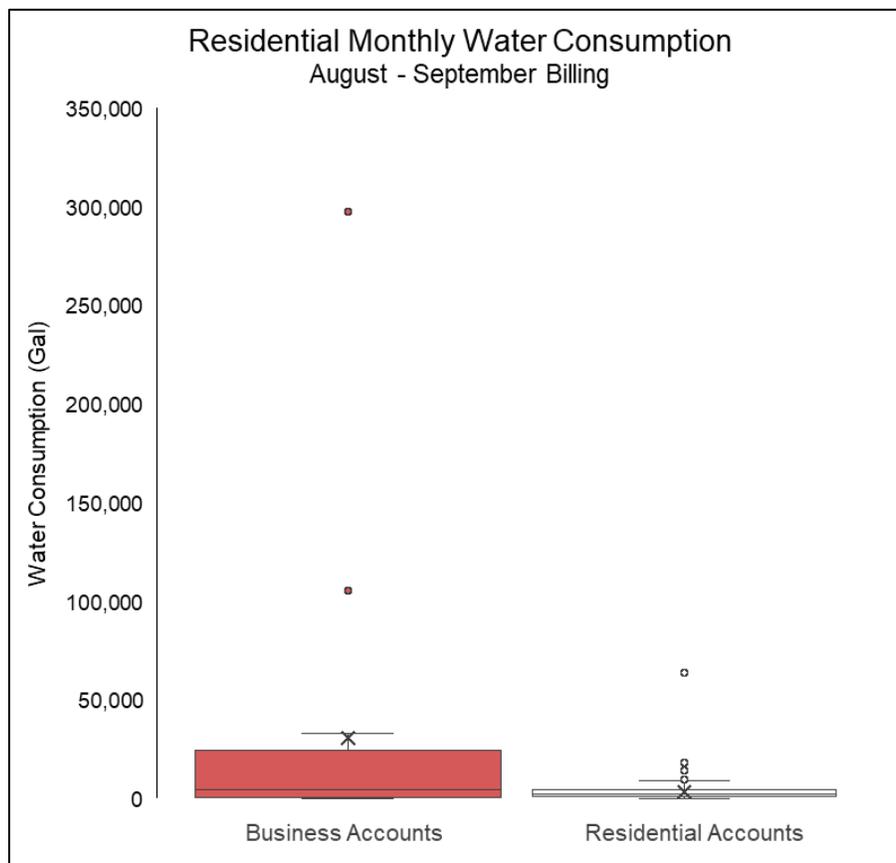


Figure 2. Box plot displaying the water consumption (gallons) for 17 active business accounts and 585 active residential accounts in the Village of Phoenix during the August – September billing period. The x represents the average water consumption. The upper and lower limits of the box represent 25% and 75% of the account water consumption for each group, with the line in the middle representing the median (50%) water consumption. The whiskers reflect 1.5 times the interquartile range and the data points are outliers and can be considered extreme water consumption.

Figure 2 is supported by Table 2, which shows values corresponding to the boxplot metrics. Of note, the median consumption value for business accounts (4,500 gallons) was similar

to the 75-percentile consumption value (4,721 gallons), where 75% of the residential accounts had total monthly consumption values below this value.

Table 2. The average, median, 75-percentile (75%) and 25-percentile (25%) water consumption values for all active accounts separated by business and residential accounts for the August – September billing period.

Active Accounts	Business	Residential
Number of Accounts	17	585
Average (gal)	31,002	3,563
Median (gal)	4,500	2,728
75% (gal)	18,349	4,721
25% (gal)	1,055	1,516

The takeaway from Figure 2 and Table 2 is that a relatively smaller number of business accounts consume a much greater volume of water compared to the predominant residential customer base. While business accounts were 3% of the total number of accounts, these account holders consumed 20% of water during the August – September billing period.

Inactive Accounts

There were 28 inactive accounts, with a last bill date that ranged from November 2015 to August 2025. Of these accounts 3 overpaid the last bill, 11 paid the bill in full, and 14 were outstanding. The outstanding balances indicated that the accounts were left in arrears. The average, maximum, and minimum consumption for all inactive accounts are shown in Table 3.

Table 3. The average, median, maximum, and minimum water consumption values for of inactive residential accounts, overpaid (balance < \$0), paid (balance = \$0), and outstanding (balance > \$0) inactive residential accounts for the August – September billing period.

	Inactive Accounts	Overpaid	Paid	Outstanding
Average (gallons)	2,450	1,260	2,995	2,276
Median (gallons)	696	1,430	100	1,001
Maximum (gallons)	14,461	1,578	14,461	10,550
Minimum (gallons)	0	773	0	0

The takeaway from Table 3 is that there was no trend in higher or lower consumption among inactive account groups. However, overpaid accounts had the most stable consumption volumes among reported metrics. Paid and outstanding accounts had much more variation.

Active Residential Accounts

Water consumption for active residential accounts in Phoenix, IL ranged from 0 gallons to 63,987 gallons for the August – September billing period. The average consumption across all active residential accounts was 3,563 gallons and the median was 2,728 gallons. Table 4 shows the number of accounts, average consumption, median (50%) consumption, 75-percentile (75%) consumption, and 25-percentile (25%) consumption limits for all active residential accounts. These active accounts are groups into overpaid accounts (balance < \$0), paid accounts (balance = \$0), and outstanding accounts (balance > \$0). The 75-percentile and 25-percentile values are the upper limits of water consumption for 75% of the active residential accounts and 25% of the residential account, respectively. In practice, this means that 75% or 25% of accounts had consumption below the stated values in Table 4 during the August – September billing period. Across all account groups, the average consumption values ranged by 22% and the median consumption values ranged by 14%, indicating no major difference in the typical consumption among the three groups (Table 4).

Table 4. The average, median, 75-percentile (75%) and 25-percentile (25%) water consumption values of all active residential accounts, overpaid (balance < \$0), paid (balance = \$0), and outstanding (balance > \$0) active residential accounts for the August – September billing period.

Residential Accounts	All Active Accounts	Overpaid Accounts	Paid Accounts	Outstanding Accounts
Number of Accounts	585	57	254	274
Average (gallons)	3,563	3,058	3,732	3,511
Median (gallons)	2,728	2,792	2,885	2,510
75% (gallons)	4,721	3,779	5,132	4,583
25% (gallons)	1,516	1,802	1,615	1,348

Figure 3 illustrates that data in Table 4 as a boxplot. The ‘x’ in each boxplot represents the average water service cost per bill. As previously described, the box shows the range of 25% – 75% of water consumption, with the line in the middle representing the median value (50%). The whiskers represent 1.5 times the interquartile (the box) range. Outliers beyond this range are represented by data points and can be considered extreme water consumption. These data symbolize the 2% of accounts (13 of 585 accounts) that experienced extreme water consumption during the August – September billing period.

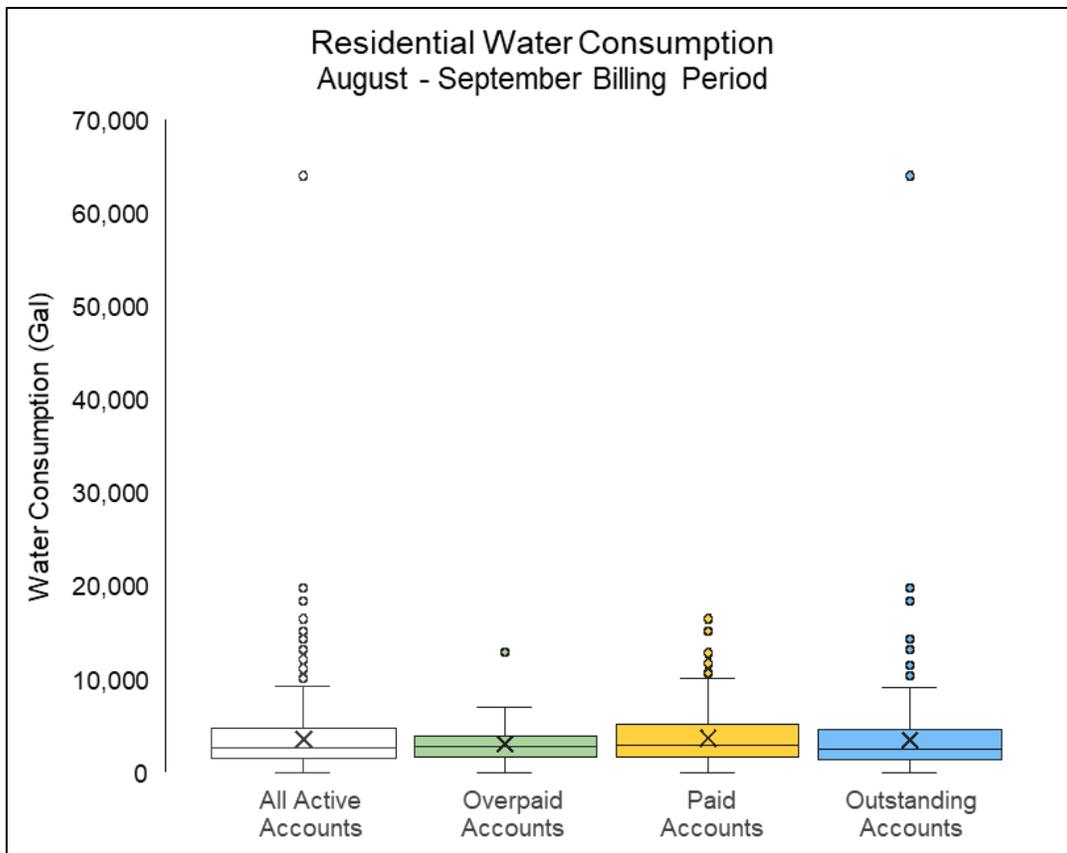


Figure 3. Boxplot showing Village of Phoenix residential monthly water consumption (gallons) for all active residential accounts, overpaid (balance < \$0), paid (balance = \$0), and outstanding (balance > \$0) active residential accounts. The x represents the average water consumption. The upper and lower limits of the box represent 25% and 75% of the account water consumption for each group, with the line in the middle representing the median water consumption. The whiskers reflect 1.5 times the interquartile range and the data points are outliers and can be considered extreme water consumption.

These data can be further represented spatially as a heatmap (Figure 4). In this map, consumption among all active residential accounts were used to create a continuous representation of water consumption across the Village of Phoenix. Consumption values are displayed by color changes, where lighter greens represent lower consumption values and darker blues represent greater consumption values. Areas with no color indicate no data associated with that location. This map shows that water consumption during the August – September billing period varied across the community. The consumption boundary classes were chosen based on water billing rates, where the first 2,000 gallons is charged at a fixed rate and additional \$1,000 are charged at a uniform rate. Figure 4 demonstrates that there was no centralized location of elevated consumption apart from the western municipal boundary, and elevated water consumption was distributed across the Village of Phoenix.

Village of Phoenix Residential Water Consumption
August - September Billing Period

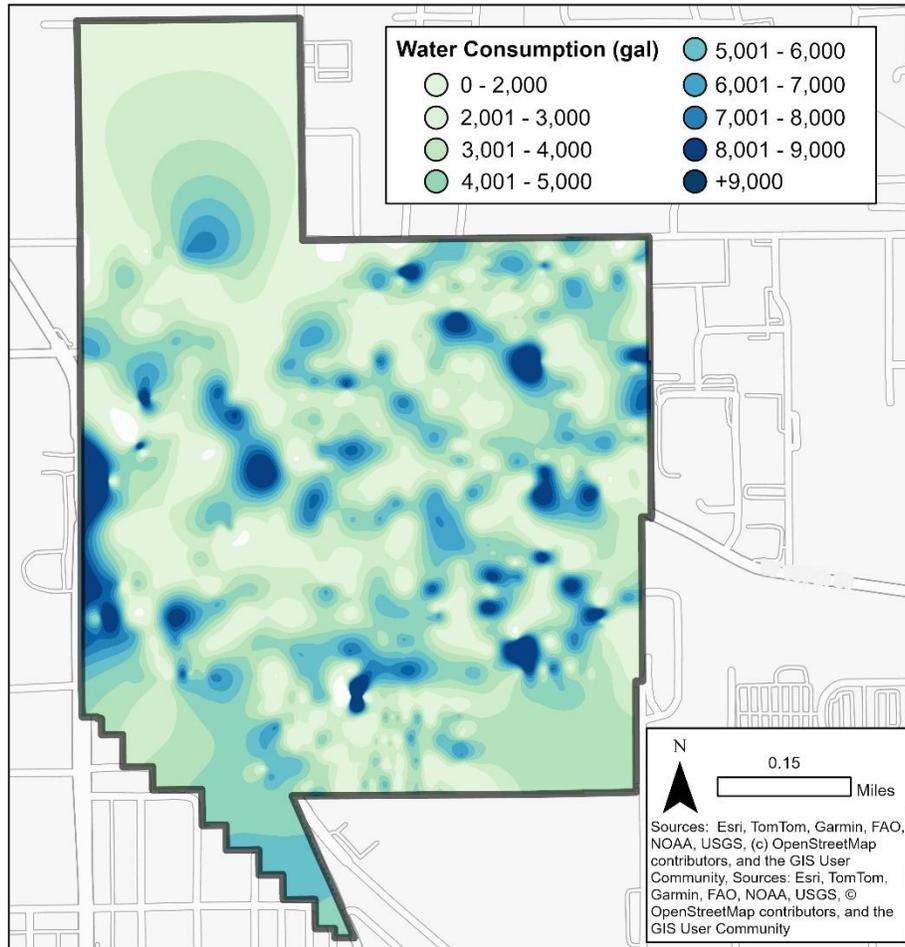


Figure 4. Heatmap of Phoenix, IL displaying the consumption of water of active residential accounts for the August – September 2025 billing cycle. Consumption ranges are between 0 and 9,000+ gallons. Areas with no color do not have data associated with them.

The takeaway from these analyses is that water consumption for most community members is low, with 50% of account holders consuming less than 3,000 gallons of water and 75% of account holders consuming less than 5,000 gallons of water during the August – September billing period (Table 4). For 25% of account holders, water consumption is elevated, but it is not centralized in one area of the community. The distribution of elevated and extreme (+9,000 gallons) water consumption throughout the Village of Phoenix suggests that purposeful and/or unintended high consumption is a challenge faced throughout the entire community.

Water Cost Balance

The water cost balance for all accounts on September 25, 2025 was evaluated for active and inactive accounts. The balance corresponded to the September 8, 2025 water utility

bill, and only represents the cost of water. The date at which balances were evaluated was 17 days after the rendering of the current bill. As a result, for any outstanding payments were considered late, a 10% penalty may be added to the balance. This value was not represented in the water costs analyzed. Accounts with outstanding balances are not considered delinquent yet. After 30 days if the outstanding balances are not paid the account holder is at risk of a shut off (Village of Phoenix, 2024). The HBI for active residential accounts was 4%.

Active Business & Residential Accounts

Both business and residential account groups had a combination of overpaid (balance < \$0), paid (balance = \$0), and outstanding (balance > \$0) accounts. Of the business accounts, 1 account overpaid, 4 accounts paid, and 12 accounts were outstanding. Of the residential accounts, 57 overpaid, 254 paid, and 274 were outstanding. Table 5 details the average, median, 75-percentile (75%) and 25-percentile (25%) values of water cost balances for all active accounts as of September 25. The total outstanding balance for business accounts was \$7,863 and the total outstanding balance for residential accounts was \$130,792.

Table 5. The average, median, 75-percentile (75%) and 25-percentile (25%) water cost balance for active business and residential accounts for the August – September billing period. Values are rounded to the dollar.

Active Accounts	Business	Residential
Number of Accounts	17	585
Average (\$)	\$463	\$217
Median (\$)	\$53	\$0
75% (\$)	\$104	\$179
25% (\$)	\$0	\$0

The takeaway from this analysis is that although the average and median balances of business accounts were greater than residential accounts, the total value owed was greater for residential accounts. This is because a greater number of accounts owe relatively smaller amounts.

Inactive Accounts

The total value owed from inactive accounts was \$14,130 as of September 25, 2025. Only three accounts overpaid a value of \$289. This outstanding balance accounts for 11% of total outstanding water cost balances for the Village of Phoenix as of September 25, 2025.

The takeaway is that the balance owed from inactive accounts was a small proportion but notable contribution to debt owed to the Village of Phoenix.

Active Residential Accounts

Active residential accounts were divided into overpaid, paid, and outstanding accounts to align with the water consumption analyses. For all active residential accounts in the Village of Phoenix, balances ranged from - \$815 (overpaid) to \$6,355 (outstanding). Table 6 shows the average, median, 75-percentile (75%), and 25-percentile (25%) water cost balance values for all active accounts, overpaid, paid, and outstanding active residential accounts. Of accounts with outstanding balances, 75% of account holders owed less than \$593. Considering the balance of all active accounts, 75% of account holders still owed less than \$179. However, this value of \$179 is artificially low due to the large number of accounts that had overpaid or paid the balance due, a total of 311 accounts.

Table 6. The average, median, 75-percentile (75%) and 25-percentile (25%) water cost balance for active residential accounts, overpaid (balance < \$0), paid (balance = \$0), and outstanding (balance > \$0) active accounts for the August – September billing period. Values are rounded to the dollar.

	All Active Accounts	Overpaid Accounts	Paid Accounts	Outstanding Accounts
Number of Accounts	585	57	254	274
Average (\$)	\$217	-\$71	\$0	\$477
Median (\$)	\$0	-\$11	\$0	\$214
75% (\$)	\$179	-\$2	\$0	\$593
25% (\$)	\$0	-\$69	\$0	\$135

Figure 5 supports Table 6 by illustrating the distribution of water cost balance for all active residential accounts, overpaid, paid, and outstanding active residential accounts. The distribution of water cost balance is directly related to the grouping of accounts based on overpaid, paid, and outstanding accounts.

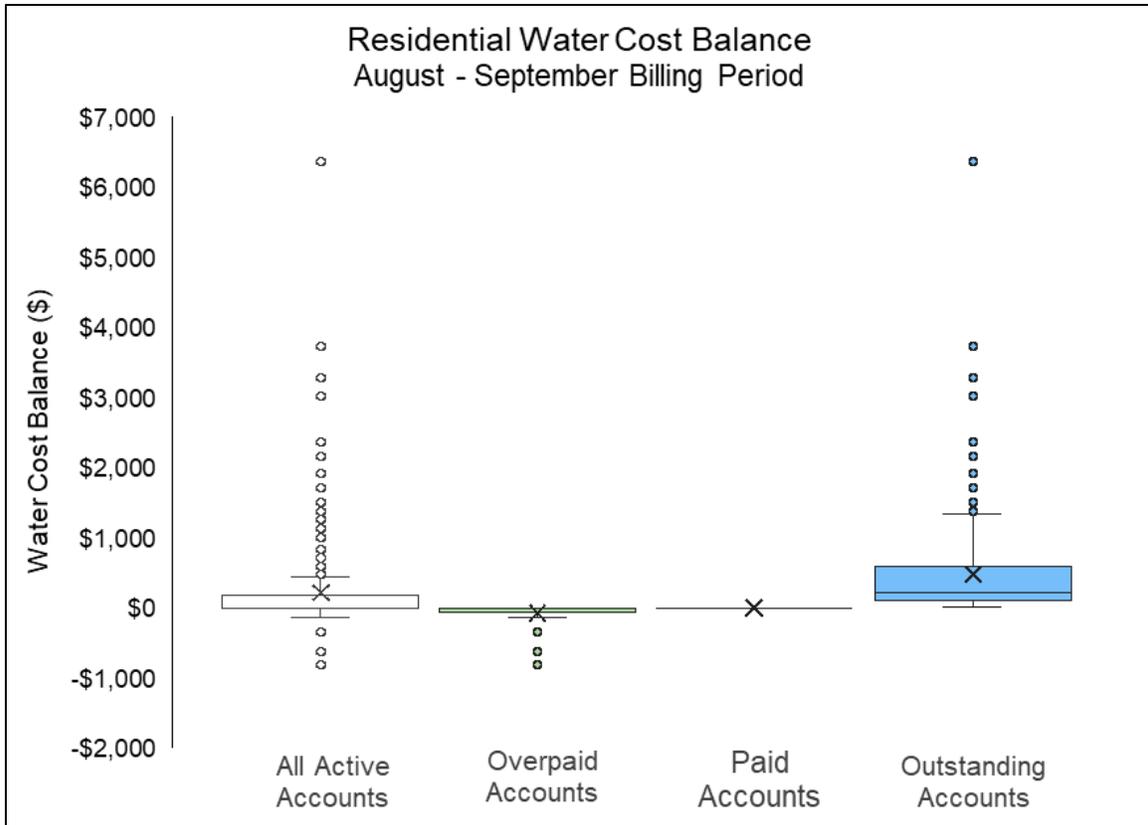


Figure 5. Boxplot showing Village of Phoenix residential monthly water cost balance (\$) for all active residential accounts, overpaid (balance < \$0), paid (balance = \$0), and outstanding (balance > \$0) active residential accounts. The x represents the average water consumption. The upper and lower limits of the box represent 25% and 75% of the account water cost balance for each group, with the line in the middle representing the median water cost balance. The whiskers reflect 1.5 times the interquartile range and the data points are outliers and can be considered extreme water cost balance for all outstanding balances.

Like water consumption, water cost balances were varied throughout Village of Phoenix. The heatmap displays this distribution of water cost balance owed (Figure 6). It is important to note that the distribution of water consumption in Figure 4 does not exactly align with the distribution of water cost balance in Figure 6. This lack of relationship between water consumption and outstanding account balance can be visualized by plotting these two on a single graph.

Village of Phoenix Residential Water Cost Balance
August - September Billing Period

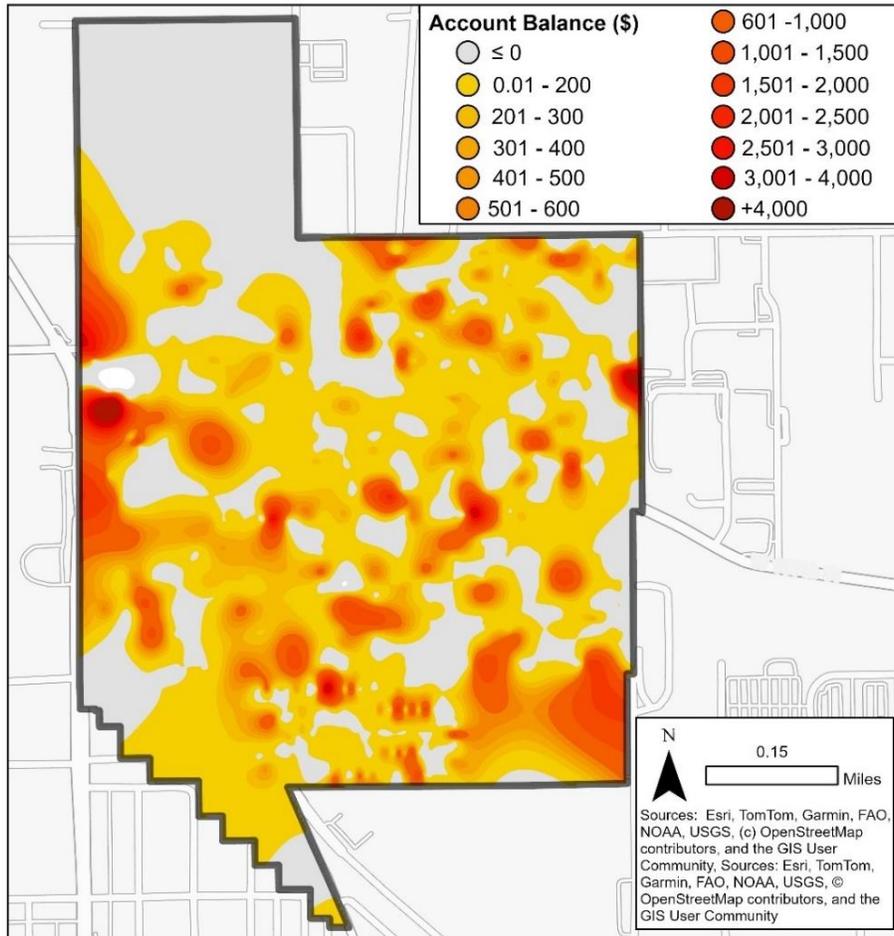


Figure 6. Heatmap of Phoenix, IL displaying the cost of water balance of active residential accounts for the August – September 2025 billing cycle. Cost of balance ranges are between $\leq \$0$ (paid and overpaid) and + \$4,000. Areas with no color do not have data associated with them.

Accounts with outstanding balances were not always the accounts with the greatest consumption. Figure 7 demonstrates the relationship between water consumption from the August – September billing cycle and the account balance as of September 25, 2025. The horizontal distribution of the data points, along the x-axis, represents the amount of water consumed in the previous billing period in association with the September 25 account balance. The accounts with the greatest consumption were accounts with outstanding balances (Figure 7).

Nevertheless, for most outstanding balance accounts, water consumption was similar to overpaid and paid accounts. This is supported by the metrics in Table 4. Paid accounts also had water consumption values greater 16,000 gallons, which was about 4.5x the average consumption of all residential accounts and about 5.8x the median water

consumption of all active residential accounts (Table 4). Conversely, all overpaid accounts had water consumption volumes of less than 7,000 gallons, with the exception if 1 account with approximately 12,000 gallons of consumption in the August – September billing period.

Across all active residential accounts, 35% of accounts had water consumption values less than 2,000 gallons. The 2,000 gallon threshold was evaluated based on the rate structure, where a fixed rate was applied for the first 2,000 gallons. A total of 3% of overpaid accounts, 13% of paid accounts and 19% of outstanding balanced accounts had consumption values <2,000 gallons. The outstanding balances for accounts with consumption values <2,000 gallons ranged from approximately \$39 to \$6,354. A low consumption value did not necessarily equate with a low cost of water balance on the account. The inconsistency in water consumption and corresponding balance suggests that debt was accrued on these accounts over time.

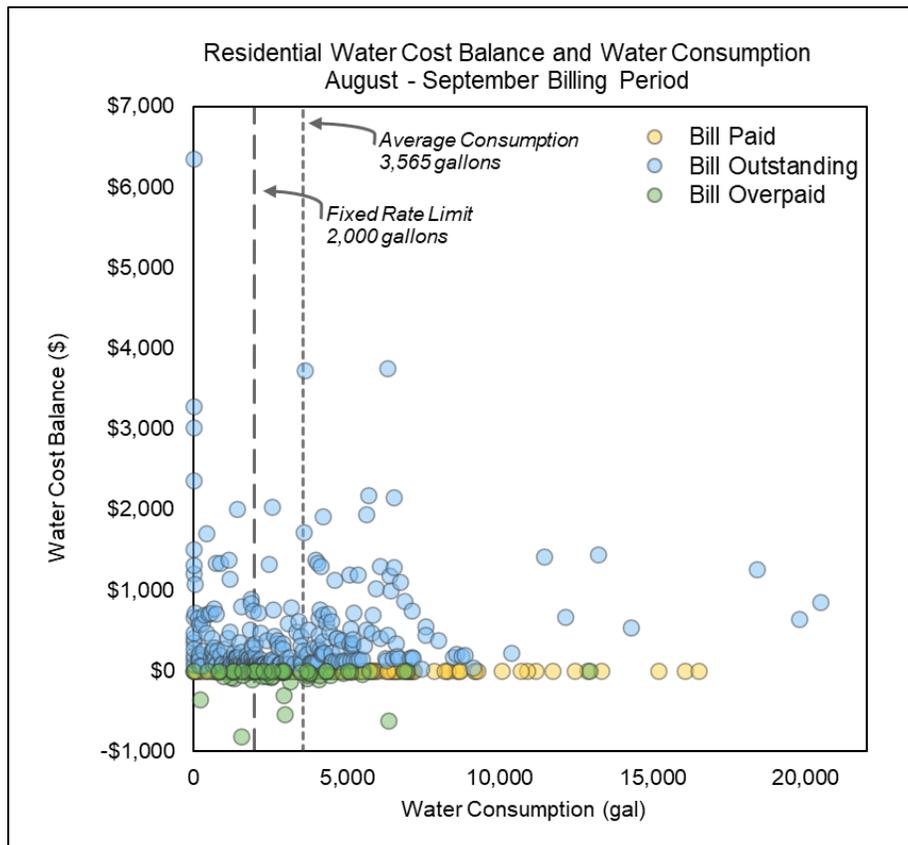


Figure 7. The water cost balance as of September 25, 2025 plotted with corresponding water consumption for the August – September billing period. Each data point represents the balance and corresponding consumption associated with a single active residential account. The accounts are divided into overpaid, paid, and outstanding account balances. The two vertical dashed lines represent the fixed rate limit and the average consumption for all residential accounts. The water consumption axis ends at 22,000 gallons, however the greatest amount consumed during the billing period was ~64,000 gallons. This is the only account with consumption over 22,000 gallons. It had an outstanding account balance and was not shown in this figure.

The takeaways from these analyses are that water cost balances are distributed throughout the community. Additionally, the consumption corresponding with outstanding balance accounts was typical for all active residential accounts, meaning that these accounts were not skewed to higher consumption volumes compared to overpaid and paid accounts (Figure 7, Table 4). The lower consumption values did not always align with the high account balances, indicating the likelihood of debt accrual on outstanding accounts. Still, outstanding balance accounts were the accounts with the greatest consumption. Those accounts with elevated water consumption and high outstanding balances suggest that account holders experienced an extreme and unintended consumption of water, likely a leak.

Delinquent Accounts

Delinquency of active outstanding business and residential accounts was determined by calculating the anticipated water cost balanced based on Ordinance 01092024C rates and comparing these values by account to the stated balance as of September 25, 2025 (Village of Phoenix, 2024). For business accounts, six accounts (35%) had water cost balances greater than calculated values. The difference in actual and calculated balances ranged from \$12.52 – \$59.37.

For the 274 outstanding active residential accounts, 268 accounts had an outstanding balance that were greater than the calculated cost for water consumed during the August – September billing period. When multiplying the calculated cost of water by 1.1 to account for an addition of a 10% penalty for a delayed payment, 267 accounts had outstanding balances greater than the calculated cost of water. While confirmation of debt for these outstanding accounts cannot be confirmed without additional billing period information, it is highly likely that the outstanding balances have been accrued from previous billing periods. This is especially evident for accounts where the account balance and calculated cost of water was 2x the calculated cost of water. Figure 8 shows the count and percentage of outstanding accounts with a balance 2x, 10, and 20x greater than the calculated cost of water.

Table 7. Count and percentage of outstanding active residential accounts with a balance greater than the calculated cost of water consumed during the August – September billing period based on Ordinance 01092024C (Village of Phoenix, 2024).

Number of Outstanding Accounts	Count		Percent
		274	
Balance Greater than Calculated Cost of Water	268	98%	<i>of all outstanding accounts</i>
Balance 2x Greater than Calculated Cost of Water	173	65%	<i>of all outstanding accounts with a balance greater than the calculated cost of water</i>
Balance 10x Greater than Calculated Cost of Water	59	22%	<i>of all outstanding accounts with a balance greater than the calculated cost of water</i>
Balance 20x Greater than Calculated Cost of Water	24	9%	<i>of all outstanding accounts with a balance greater than the calculated cost of water</i>

A majority of customers (65%) have an outstanding balance that was 2x greater than the calculated cost of water, suggesting that the balance has been accrued from previous bills. For 33% of account holders, the balance was 10x greater than the cost of water. (Table 7). Further looking into these data, it is apparent that 40 – 70% these customers used less than the fixed cost threshold of 2,000 gallons during the August – September billing period (Figure 8). Low water users, paying the minimum water cost charge have large outstanding account balances. The large difference in account balance and calculated cost of water suggests that water costs may be a long-term financial hardship for this group of customers.

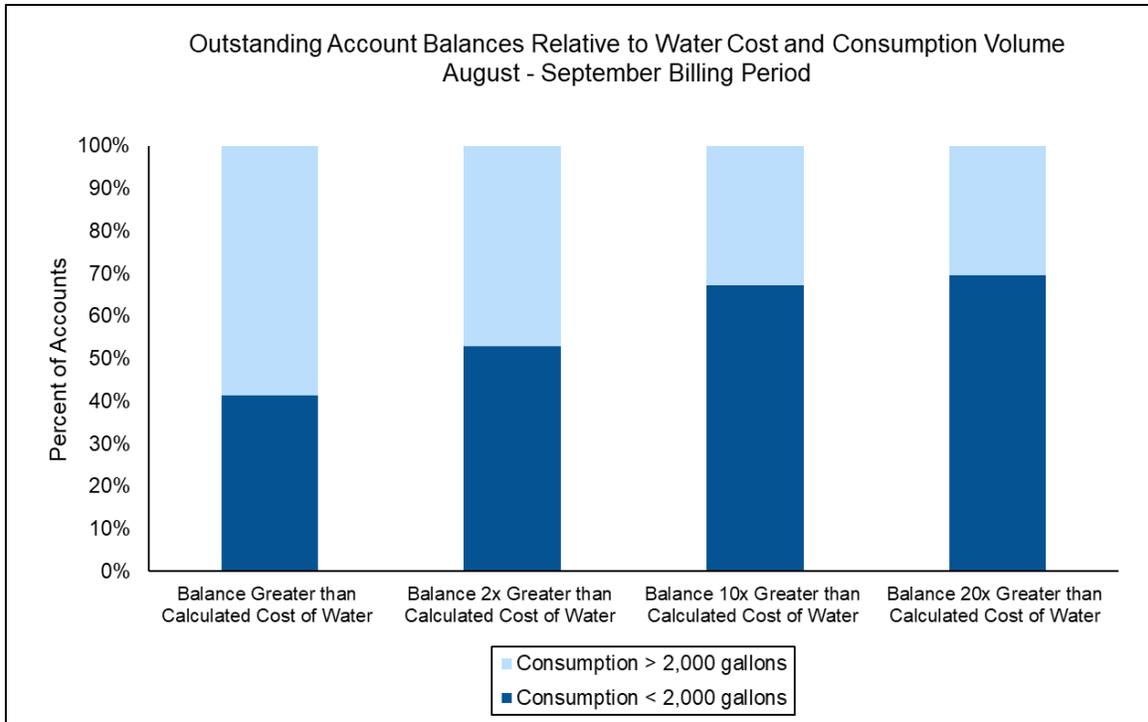


Figure 8. The difference between the account balance as of September 25, 2025 and the calculated cost of water based on February 2024 rates for outstanding active residential accounts (Village of Phoenix, 2024). The proportion accounts in each category are represented as a percentage of accounts with consumption values greater or less than 2,000 gallons during the August – September billing period.

The takeaway from this debt accrual analysis is that the majority of the outstanding accounts have a balance greater than the cost of water from the August – September billing period, which signifies the outstanding account balances include debt accrued from previous bills. Unexpected, elevated water consumption, likely in the form of a leak, may have contributed to the accrual of debt. Nevertheless, the high account balances accompanied by low consumption suggests long-term water bill payment challenges.

4. Phoenix Community and Municipal Perspectives

Overview

This section summarizes the approach and outcomes from engagement conducted with municipality staff and residents as part of this study.

The purpose of engagement was to gather qualitative information and perspectives on water affordability offerings, opportunities, and challenges to supplement findings from the quantitative analysis and to inform recommendations provided to the Village.

Goals and objectives for conducting engagement with municipal staff and residents were as follows:

1. Gather information on how Phoenix residents engage with water use and their bills.
2. Capture Village staff experiences and perspectives working with residents on water management and billing.
3. Document Phoenix residents' perspectives, challenges, and opportunities relating to water affordability.
4. Incorporate community and staff input and perspectives in the analysis and action plan.

Engagement Strategies

Village Staff Interviews

The project team worked alongside Village staff throughout the course of the study to inform the research and project approach. The project team held meetings with staff to gather information on the Village's programs, policies, and processes; understand the Village's priorities and challenges relating to water affordability; understand the Village's relationship with residents; and to identify and build buy-in for recommended solutions.

Water Affordability Resident Survey

The Water Affordability Resident Survey (Survey) was conducted to gather perspectives on what water affordability challenges residents are facing; understand barriers and opportunities for residents seeking assistance and relief; and to identify potential water affordability intervention strategies for the Village's consideration.

The survey was available online, via JotForm, from October 6, 2025, through October 15, 2025.

The survey was distributed via the Village’s TextByChoice communications platform, where residents may opt in to receive text information on upcoming events, important municipal notices, or engagement opportunities.

There were 72 total respondents to the survey. Of all survey respondents:

- 64% live in a household with 1-3 individuals ages 65 or older.
- 19% earn a household income of up to \$24,999 and 21% earn between \$25,000 - \$49,000 and (before taxes).
- 39% live in a household with at least one retired individual. 27% live in a household with at least one individual with full-time employment. 7% live in a household with at least one unemployed individual.
- 44% have been unable to pay their water bill once or more in the last year.

Residents were encouraged to complete the survey by entering a raffle to win a \$50 Jewel Osco gift card.

Key Themes Emerging from Outreach and Engagement

Below is a summary of key themes gleaned from the community engagement activities detailed above, including municipal interviews and the resident survey. It is important to note that themes are based on first-hand accounts and therefore may not capture the full range of perspectives across Phoenix. However, they provide insights into the unique lived experiences, challenges, and opportunities that were identified by community participants and provide a general sense of what is top of mind for residents and municipal staff relating to water affordability

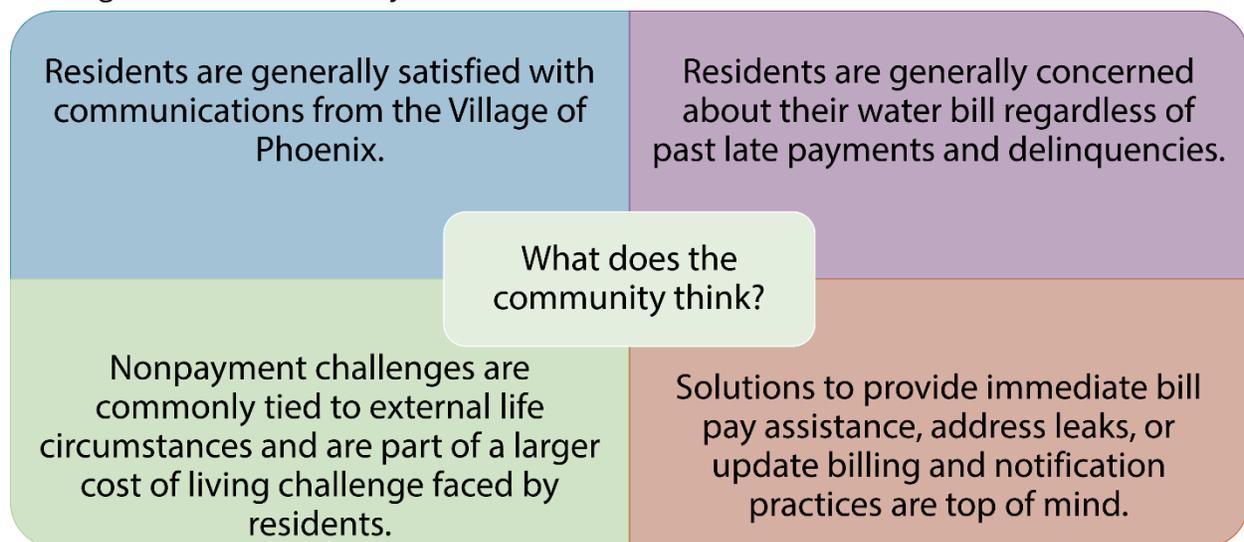


Figure 9. Summary of key themes emerging from engagement.

First, residents are generally satisfied with communications from the Village of Phoenix.²

According to survey responses, 79% of residents find their water bill “clear and easy to understand” (Figure 10) and 68% shared that “communications are clear and helpful” regarding information on late payments, water shut offs, or other information relating to water use and bills (Figure 11). Additionally, a response rate of 72 residents and potential account holders (12% of total Village accounts) in a one week period is indicative that that residents are not only open to receiving communications but are also responsive and willing to engage with Village staff. Resident feedback, including comments from households earning less than \$25,000, further support this perspective, stating “*The Village has done a great job in communicating with residents,*” and “*My experience with the Village and the Water Department has always been a pleasant one.*”

In conversations with the Village, staff also emphasized that clear communications and access to information are municipal priorities and they expressed interest in providing self-help and educational resources to customers. However, they noted that a lack of access to updated communications systems and staff capacity are barriers to streamlining these efforts.

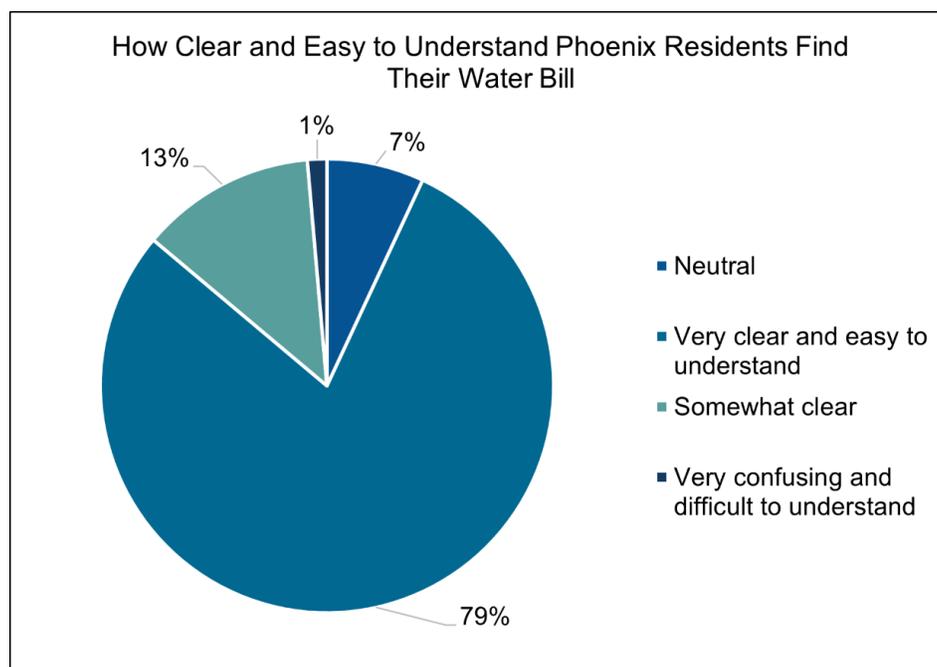


Figure 10. How clear and easy to understand Phoenix residents find their water bill according to survey.

² This section reflects feedback from a subset of residents who have opted in to receive Village text notifications. As such, this takeaway may reflect the perspectives of a more engaged subset of the population and thus a more favorable view of communications overall.

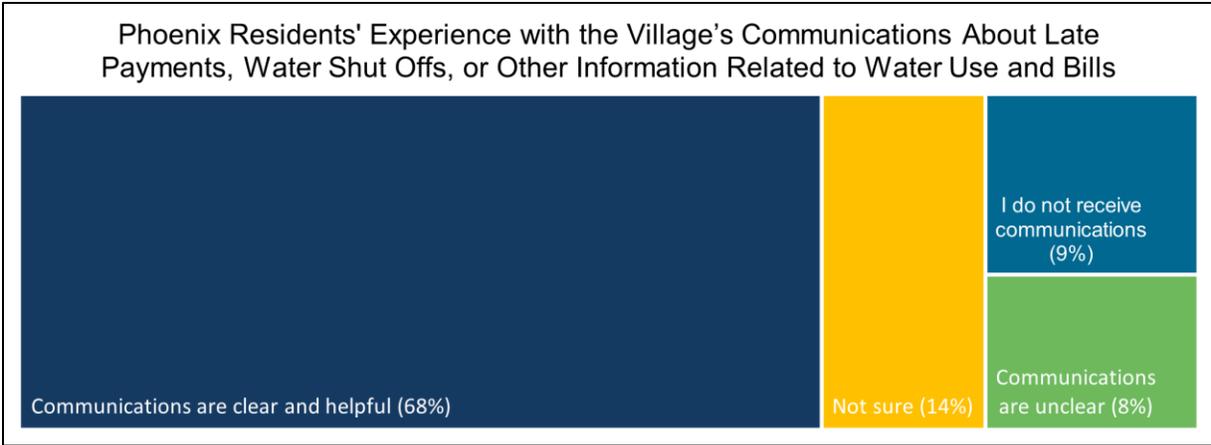


Figure 11. Phoenix residents' experience with the village's communications about late payments, water shut offs, or other information related to water use and bills.

Additionally, residents are generally concerned about their water bills regardless of past late payments and delinquencies.

Most residents who completed the survey are at least slightly concerned (31%) or extremely-to-moderately concerned (48%) about their ability to pay water utility bills (Figure 12).

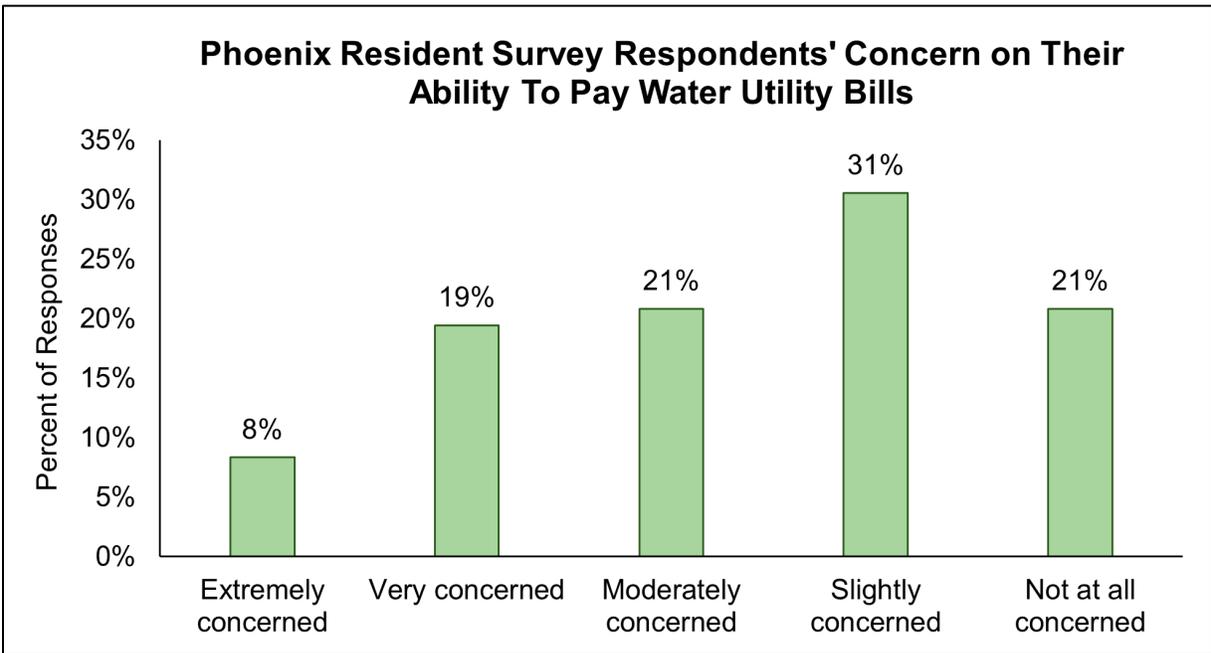


Figure 12. Phoenix resident survey respondents' concern on their ability to pay water utility bills.

Furthermore, survey results show that concern about water bills is common across residents, regardless of payment history. Among residents with a history of nonpayment, concern about water bills depends on the frequency of missed payments. As shown by the

red boxes in Figure 13, 29% of residents who have been unable to pay their bill more than once in the last year are also concerned about being able to pay in the future, ranging from “moderately concerned” to “extremely concerned”, compared to only 10% of those who have missed only one payment, as shown by the high number of blue boxes. This suggests that once someone begins to fall behind or accumulate debt, it may become increasingly difficult to catch up, creating a snowball effect over time and potentially leading to service shut off.

However, even residents who have consistently paid their bills on time share similar worries. Figure 13 also shows that most residents who reported no missed or late payments last year are still range from being “moderately concerned” to “very concerned” about being able to pay their bill in the future. Taken together, these findings point to widespread concern about water affordability in Phoenix, not only among those who have struggled to pay in the past.

		How concerned is your household about being able to pay the water utility bill in the future?				
		Extremely concerned	Very concerned	Slightly concerned	Moderately concerned	Not at all concerned
Has your household been unable to pay a water bill on time and in full over the last year?	Yes, more than once in the last year	4%	8%	7%	10%	3%
	Yes, once in the last year	1%	1%	7%	1%	1%
	No	3%	7%	14%	7%	15%
	Not in the last year, but yes within the last five years	0%	3%	3%	3%	1%

Figure 13. Phoenix survey respondents concern for being able to pay water utility bills based on past missed payments. The percentage value in the box indicates the percentage of responses to each question cross-section.

For residents who participated in the survey, nonpayment challenges were tied to external life circumstances, indicating water affordability is part of a larger cost of living challenge faced by residents.

As shown in Figure 14 from the survey, most respondents cited issues such as needing to pay other non-utility or utility bills, having an extraordinarily high bill, changes to employment status or income, or medical hardships as primary reasons for missing a

water bill payment. One survey respondent shared, “...sometimes people hit hard times that causes customers to fall behind....”

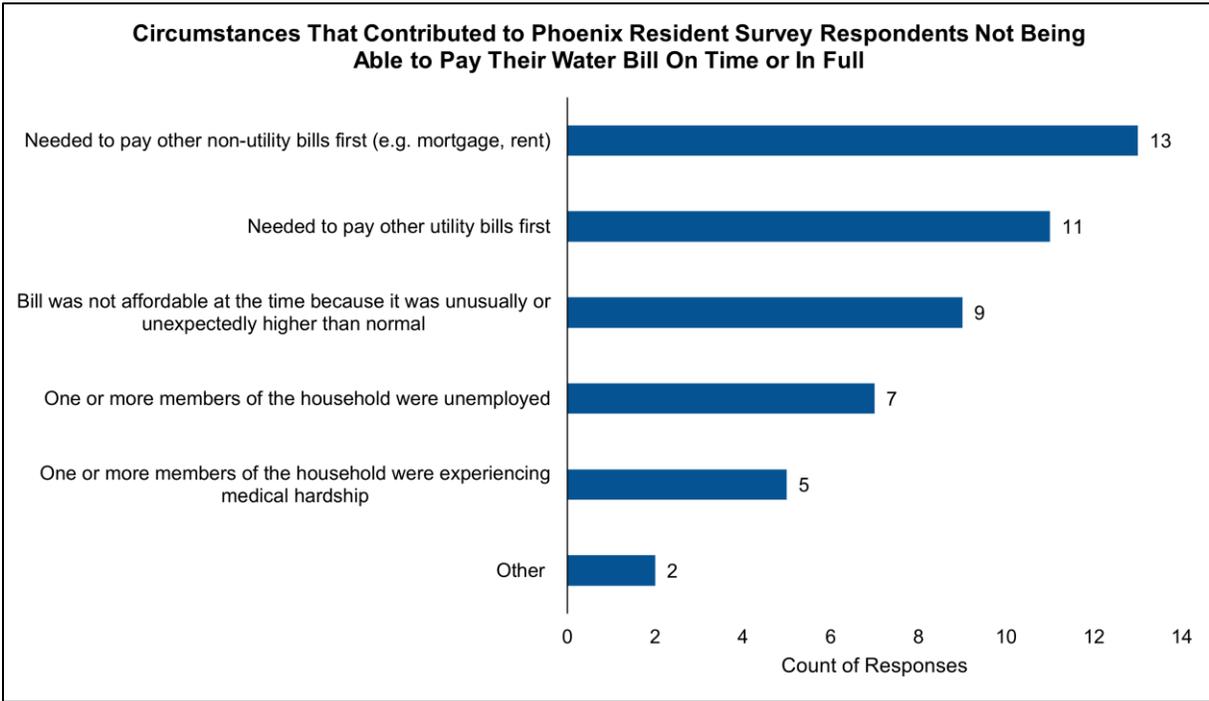


Figure 14. Circumstances that contributed to Phoenix resident survey respondents not being able to pay their water bill on time or in full.

This is further reflected in Figure 15 below, which shows that 22% of respondents would pay their water utility bill last when facing multiple expenses. While water costs affect everyone, they are balanced against other essential needs like rent, groceries, childcare, and other utilities. This underscores the situational nature of payment difficulties and that water affordability is not as a stand-alone issue, but a part of broader cost-of-living challenges for Phoenix residents.

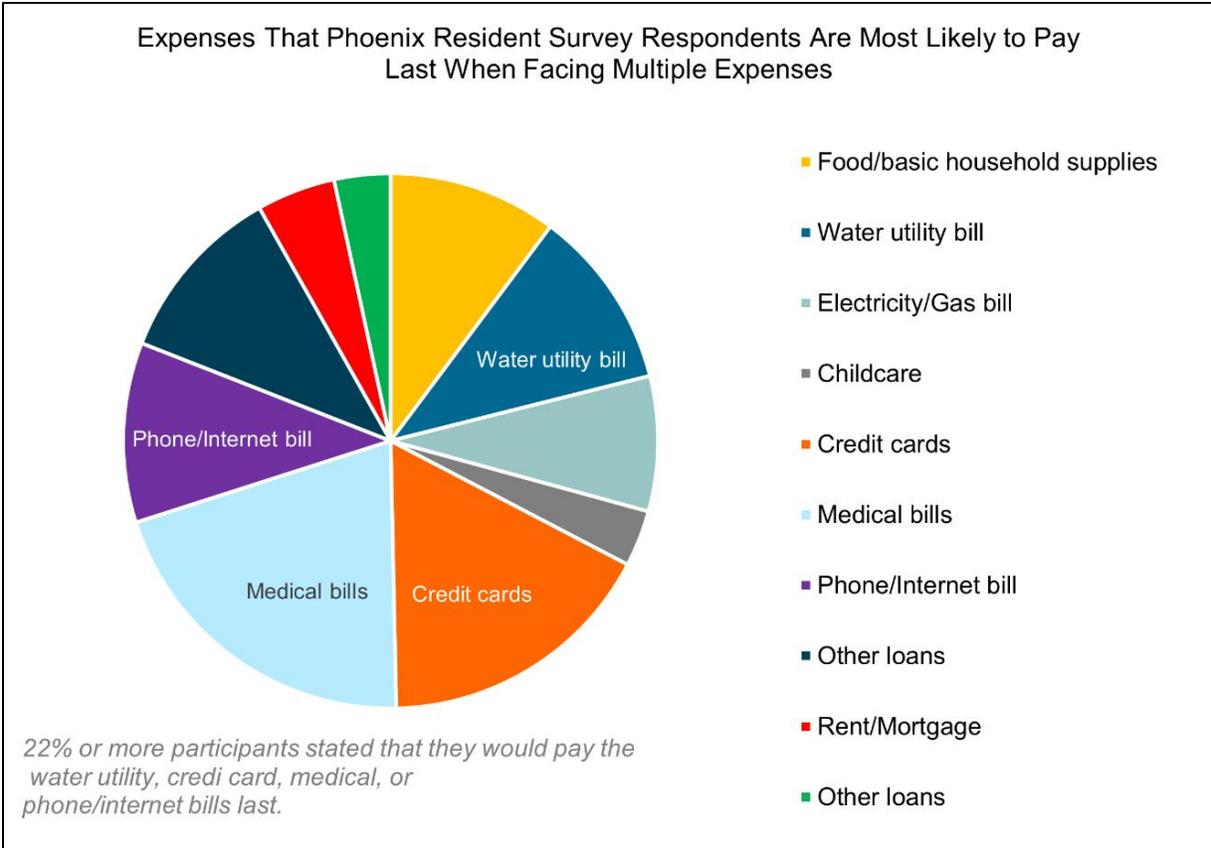


Figure 15. Expenses that phoenix resident survey respondents are most likely to pay last when facing multiple expenses.

This theme is consistent among customers who have a history of nonpayment. For survey respondents who reported being unable to pay their water bill in the past, delinquencies were due to needing to pay other non-utility bills (26%), needing to pay other utility bills (26%), an extraordinarily high bill (20%), or changes in employment status (12%) (Figure 16).

Has your household been unable to pay a water bill on time and in full over the last year?		
What circumstances contributed to the water bill not being paid on time and in full?	Yes, more than once in the last year	Yes, once in the last year
	Needed to pay other utility bills first	20%
Needed to pay other non-utility bills first (e.g. mortgage, rent)	18%	8%
Bill was not affordable at the time because it was unusually or unexpectedly higher than normal	16%	4%
One or more members of the household were unemployed	8%	4%
One or more members of the household were experiencing medical hardship	8%	2%
Forgot to pay	4%	0%
Other	2%	2%

Figure 16. Phoenix residents who have been unable to pay a water bill on time or in full over the last year share what circumstances led to the late or nonpayment.

Lastly, solutions to provide immediate bill pay assistance, address leaks, or update billing and notification practices are top of mind.

Among survey respondents, payment plan options, education on how to save water or address leaks, and information on assistance programs were the most common strategies selected to help residents better manage water bills and use, respectively (Figure 17). One resident noted, “...I believe the Village should implement an early-warning system for abnormal water usage and offer immediate support options or payment adjustments for customers facing sudden, unexpected spikes due to leaks or other issues beyond their control.”

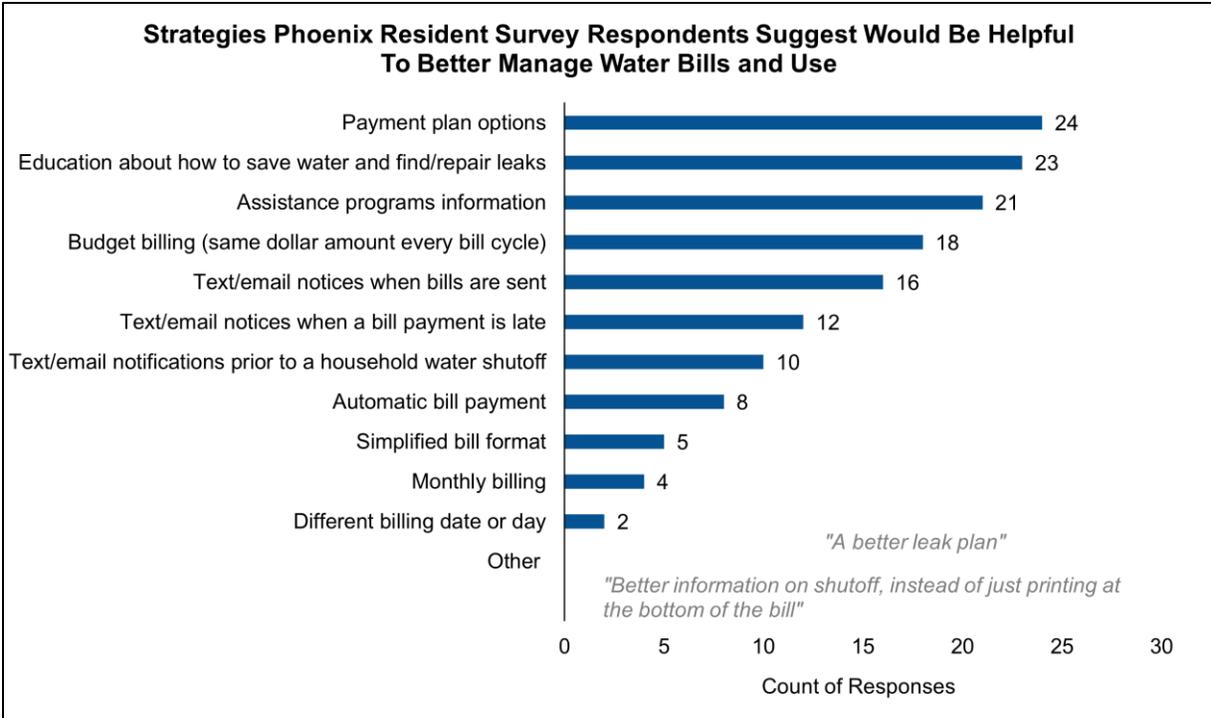


Figure 17. Strategies Phoenix resident survey respondents suggest would be helpful to better manage water bills and use.

Changes relating to billing and late payment penalties were also cited as helpful interventions. One resident noted that the late charges are “extremely high.” Another shared that “they [the Village] should charge...for the amount of water you uses and not a standard rate.” One resident shared that their water bill only arrives 7-10 days before it is due, making it difficult to pay on time due to the timing of household income payments.

Despite this interest, only 32% of survey respondents reported having participated in a utility-sponsored program. A breakdown of program participation is shown in Figure 18 below. This suggests a gap between customer needs and demands and the support currently available, which may stem from limited awareness or barriers to accessing available assistance. By understanding and addressing these current gaps, the Village can improve the reach and effectiveness of current and future assistance opportunities.

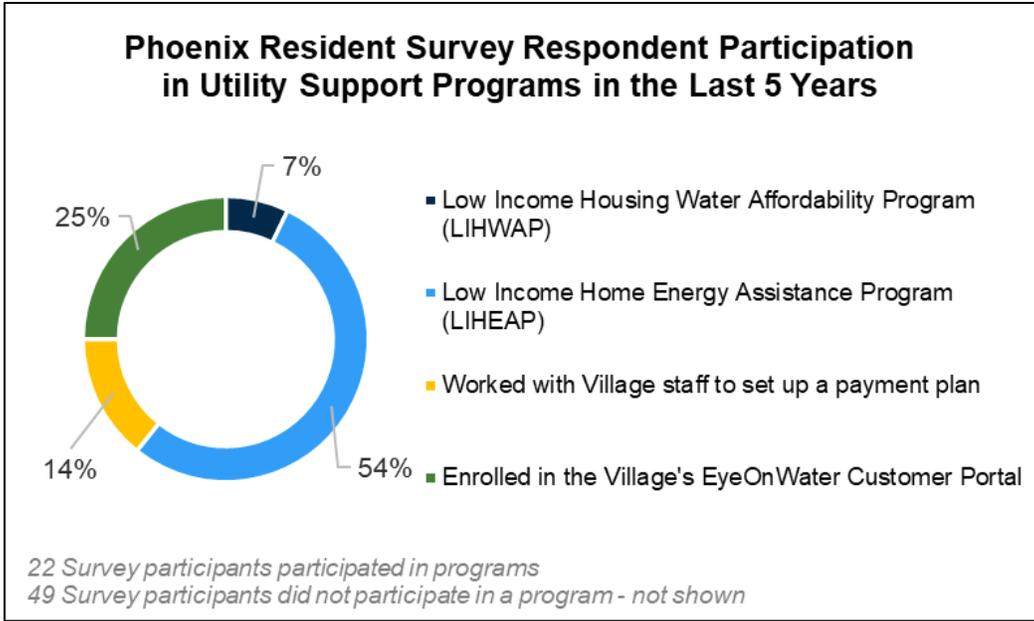


Figure 18. Phoenix resident survey respondent participation in utility support programs in the last 5 years.

5. Recommendations and Action Plan

Section Overview

Based on the findings from the quantitative water affordability analysis and community engagement, the project team developed a list of recommendations to be considered for implementation by the Village of Phoenix. Recommendations are categorized according to five general intervention strategies, namely: (1) Customer Service, Outreach, and Engagement; (2) Operations and Data Management; (3) Water Conservation and Residential Leakage; (4) Water Rates and Billing Practices; (5) Water Bill Burden and Debt. Furthermore, recommendations include solutions that fall under short-term (ST), medium-term (MT), and long-term (LT) implementation timeframes. Recommendation categories were selected to align with Elevate Energy's *City of Chicago Water Affordability Analysis* to encourage a unified approach to water affordability strategies across the region (Shimabuku et al. 2025).

The following sections describe all recommendations based on the intervention category and implementation timeframe. Each recommendation also includes supporting rationale based on the study's quantitative and qualitative analysis as well as industry best practices, and details relevant implementation considerations. A summary of all recommendations is provided in [Appendix A](#).

Intervention Strategy 1: Customer Service, Outreach, and Engagement

Utility customer assistance programs are typically under-subscribed despite water affordability challenges growing significantly since 2000 (Vedachalam and Dobkin 2021). Part of this is due to the challenge for utilities to effectively increase awareness to available water affordability and assistance programs among eligible customers. For this reason, communications and outreach are key strategies for increasing participation in water affordability programs and ultimately addressing community-wide affordability challenges (Shimabuku et al. 2025).

Recommendations

1.1 Develop a dedicated water affordability webpage on the Village website to provide residents with access to education and resources relating to water bills, water use management, and assistance opportunities.

During project interviews, Village staff expressed interest in leveraging its website to build online self-help and education tools that empower residents to better understand and manage their water use while also reducing staff time spent responding to individual inquiries. Establishing this webpage represents an important first step toward building a

more comprehensive and effective water affordability strategy, as water utilities rely on their websites as a primary way of communicating with customers, presenting a large opportunity to increase awareness and education on water affordability.

Currently, the Village’s “Water and Sewer” webpage links to the online payment portal and the new “EyeOnWater Leak Alerts” provides residents with information on how to sign up for the Village’s customer portal and set up leak alerts. Expanding these pages to include educational and self-help content, such as how to read a bill, check for leaks, and access assistance programs, would create a more comprehensive, user-friendly hub for billing, conservation, and affordability support.

Implementation Considerations:

- **Content Development and Maintenance:** Identify key topics (e.g., how to read a water bill, detect leaks, conserve water indoors and outdoors, and access financial assistance programs). Establish a process for regularly reviewing and updating materials to ensure accuracy and relevance.
- **User Accessibility and Navigation:** Ensure the webpage is easy to find from the Village homepage and designed for readability on both desktop and mobile devices. Include clear headings, concise text, and translated content or accessibility tools (e.g., screen reader compatibility) as needed.
- **Community Outreach and Awareness:** Promote the new webpage through existing communication channels such as utility bill inserts, social media, newsletters, and community meetings to raise awareness and encourage residents to use the resources.
- **Partnership and Resource Sharing:** Coordinate with community groups and local partners to share existing educational materials and assistance program information.
- **Performance Tracking:** Establish simple metrics—such as webpage traffic, click-throughs to assistance resources, or resident feedback—to assess effectiveness and guide future improvements.

Priority: High

Phasing: Short-term

Resources Needed:

- The Village of Phoenix staff time to develop and regularly maintain website and resources
- Development of educational materials

Who Leads: The Village of Phoenix

1.2 Develop and implement a resident outreach campaign to promote the Village's new EyeOnWater.

The Village recently launched EyeOnWater, a new customer portal that allows residents to view their water use in real time, receive leak alerts, and track consumption trends. Village staff noted that initial outreach has been conducted to introduce the new system and get residents enrolled, however they expressed that they are seeking ways to increase resident sign-ups to the system to maximize its benefits. Expanding participation in EyeOnWater would help residents identify leaks early, reduce high water bills, and strengthen overall water efficiency across the community. Strategies to address high water use and bills due to leaks and improved notification systems were also identified as a need by residents who participated in the project survey, as discussed in [Section 4](#).

Implementation Considerations:

- **Outreach and Communication:** Use multiple communication channels—such as bill inserts, email notices, the Village website, social media, and community events—to raise awareness of EyeOnWater and its benefits.
- **Targeted Outreach:** Consider targeting residents with previous or known leaks or reaching out to residents with extraordinarily high bills from the previous billing cycles.
- **User Support and Education:** Provide clear step-by-step instructions on how to register, access, and use EyeOnWater features. Consider offering in-person workshops, pamphlets, or flyers to help residents navigate the system.
- **Communicate Added Value:** Emphasize that EyeOnWater empowers residents to track daily water use, set leak alerts, and better manage their household water bills, supporting both cost savings and conservation.
- **Leverage Community Partnerships:** Work with local partners or groups to share information about EyeOnWater and demonstrate its value. Partnering with these organizations can expand the Village’s outreach network, build trust, and help reach residents who may have limited internet access or familiarity with online tools.

Priority: High

Phasing: Medium-term

Resources Needed:

- The Village of Phoenix staff time
- Promotional and marketing materials or resources (flyers, pamphlets, workshops, mail inserts, etc.)
- Funding for development and distribution of materials

Who Leads: The Village of Phoenix

1.3 Implement a water affordability outreach campaign to educate residents on water bill and use management, including one-on-one communications, a series of workshops, and investing in community partnerships focused on water affordability.

The Village has built momentum on addressing water affordability through the recent resident survey conducted for this study and the rollout of the EyeOnWater customer portal and leak alert program. Continued engagement and communication on water affordability can help the Village sustain trust and collaboration with the community in advancing to the next phases of the Cook County Water Affordability Program.

The Village may consider sharing the results of this study, communicating any planned actions based on the study’s findings, and working with residents to better refine and tailor solutions. Future activities may include a round of community meetings, workshops or focus groups diving into recommended water affordability strategies, or a survey that dives into specific actions that the Village is interested in implementing, such as adjustments to the rate structure, billing practices, or the development of a new bill pay assistance or payment plan program.

Implementation Considerations

- **Leverage Existing Assets:** Share engagement opportunities through existing channels, such as the Village’s newsletter, TextByChoice, robocall, or customer portal.
- **Targeted Messaging:** Develop clear, accessible materials that explain how to read and understand water bills, the factors that influence costs, and practical steps residents can take to manage water use and reduce expenses.
- **Multi-Channel Outreach:** Use diverse methods, such as community workshops, social media, flyers, bill inserts, and local events, to reach residents with varying levels of digital access and engagement.

- **Community Partnerships:** Collaborate with trusted local organizations, schools, and faith-based groups to expand outreach and ensure materials reach residents who may be most impacted by water affordability challenges.
- **Interactive Education:** Incorporate hands-on elements such as bill review sessions, leak detection demonstrations, or resource fairs to make information more engaging and actionable.
- **Monitoring and Feedback:** Track participation rates and gather resident feedback to assess effectiveness and identify where additional education or support may be needed.

Priority: Medium

Phasing: Medium-term

Resources Needed:

- The Village of Phoenix staff time
- Community partners, local organizations
- Local media and communication platforms
- Educational materials
- Funding for campaign

Who Leads: The Village of Phoenix in partnership with consultant and/or local partners

Intervention Strategy 2: Operations and Data Management

Effective data collection, management, and reporting are essential for understanding the nature of a community’s water affordability challenges. Yet, many utilities lack reliable customer data, often due to limited staff capacity to compile and maintain this information. Without accurate and accessible data, utilities face difficulties in identifying customer needs, delivering effective services, and assessing the impacts of decisions on low-income and vulnerable households. Additionally, streamlining administrative processes, data collection, and operations not only helps advance water affordability goals, but it also reduces staff workload and time spent gathering this kind of information. The NRDC’s Water Affordability Toolkit provides best practices for data collection to effectively deliver a water affordability program (Natural Resources Defense Council and National Consumer Law Center 2022b).

Recommendations

2.1 Streamline the Village's internal data management and record keeping systems to align with AMI and EyeOnWater consumption metrics and leak notifications.

High resolution, automatic meter reading capabilities partnered with a reliable customer communication platform can provide utilities with the necessary tools to address customer needs and streamline processes for staff. The recent installment of AMI meters throughout the Village of Phoenix and adoption of the EyeOnWater platform offers an opportunity for the Village of Phoenix to integrate consumption metrics and leak notifications into billing management and record keeping systems. While EyeOnWater is primarily a platform to notify and engage customers in water use management, it can also be a useful tool to track leaks and customer awareness of high water use. The adoption of the EyeOnWater platform throughout the Phoenix community serves as an opening for the Village to track leak notifications and other high consumption notifications sent by EyeOnWater to customers. The Village may benefit from tracking these alert notifications along with water cost and consumption data. This additional customer information could help inform payment assistance programs, track reoccurring issues, and identify opportunities for target community education. These types of programs could assist residents with extreme water consumption accrued debt, as both of these circumstances were apparent issues during the August – September billing period (Figure 3, Table 7).

Implementation Considerations:

- **Coordination with EyeOnWater:** Work with experts at EyeOnWater to determine what information is useful to address customer concerns and how it may be integrated into the Village’s billing and record keeping systems.
- **Customer Participation:** An increased number of Village of Phoenix account holders need to sign up for EyeOnWater for the integration of EyeOnWater information to be effective and a good use of Village staffs’ time. The first step in this process is encouraging EyeOnWater customer participation (see Recommendation 1.2).
- **System Longevity:** The integration of AMI data and EyeOnWater leak notification data into Village’s billing system allows for the opportunity to assess the current billing system and modify processes or information records. Conducting a review when first integrating information from EyeOnWater will improve system efficiency and longevity.
- **Implementation Phase-In:** The process of incorporating new data into a system takes a lot of effort and time. First focus on incorporating a single piece of information from EyeOnWater, for example leak notifications, prior to incorporating other metrics like elevated consumption due to an alternative circumstance. This will allow for sustainable implementation.

Priority: Medium

Phasing: Medium-Term, Long-Term

Resources Needed:

- The Village of Phoenix staff time
- Collaboration with EyeOnWater technicians
- Experience in the Village’s billing system

Who Leads: The Village of Phoenix with assistance from EyeOnWater technicians.

Intervention Strategy 3: Water Conservation and Resident Leakage

While water bill payment assistance programs provide short-term financial relief to households in need, they often do not address the long-term or underlying causes of high-water use and unaffordable costs. These root issues are frequently linked to leaks and inefficient fixtures or appliances and are particularly persistent in older homes and among low-income households, many of which may lack the resources to make necessary repairs or upgrades (Alliance for Water Efficiency 2024; U.S. Environmental Protection Agency 2024). Providing customers with resources and programs to address leaks, improving water use efficiency, and upgrading household appliances help residents save water and, in turn, provide large potential in bill reductions to improve water affordability in the long run (Natural Resources Defense Council and National Consumer Law Center 2022c).

Recommendations

3.1 Continue to partner with Elevate to advertise and enroll qualifying residents in the Cook County Leak Repair Program and consider pursuing funds to supplement repairs based on customer demand and need.

The Water Use & Affordability Analysis in [Section 3](#) demonstrated the prevalence of extreme water use among Phoenix customers that may be attributed to leaks. This theme also arose through community engagement, as detailed in [Section 4](#), where survey respondents shared experiences managing high bills due to leaks.

The program is offered at no cost to the Village, with the administrative and programmatic infrastructure already in place by Elevate and Cook County, meaning the main need is support for outreach and marketing. Providing clear information to residents about when the program will reopen would help ensure broader participation and allow more households to benefit from timely leak detection and repair. The Village may consider prioritizing outreach to customers who are eligible to participate in the program, have known leaks, and/or who are experiencing extraordinarily high-water bills due to leaks.

Implementation Considerations:

- **Sustained Coordination with Elevate:** Maintain regular communication with Elevate staff to align outreach timelines, share enrollment updates, and coordinate follow-up with referred residents as needed.
- **Targeted Resident Outreach:** Use Village communication channels to raise awareness of the Leak Repair Program among income-eligible households most likely to benefit.
- **Alternative Support Options:** For residents who are not eligible or unable to participate in the Leak Repair Program, provide other forms of support, such as do-it-yourself repair guides, connections to local plumbers, or offering other assistance or relief to manage high water bills due to leaks.
- **Tracking and Evaluation:** Work with Elevate to track participation rates, completed repairs, and overall water savings to measure program impact and identify areas for improvement.

Priority: Medium

Phasing: Short-term

Resources Needed:

- The Village of Phoenix staff time
- Media and communication platforms
- Funding provided by Cook County
- Implementation and administration managed by Elevate

Who Leads: Elevate with support from Village of Phoenix

3.2 Leverage AMI data and EyeOnWater information to evaluate community water-related challenges and needs to create programs that address issues and concerns.

High resolution water consumption measurements through AMI provide utilities with a wealth of information to address water-related concerns within a community. This information can be leveraged to quantify and better understand the water issues that customers face. Building upon recommendation 2.1, the combination of EyeOnWater leak and consumption notifications partnered with hourly AMI data analysis would provide insight into water consumption patterns that cannot be identified on a monthly billing cycle. Examples of insights that may be gained from high resolution data could be what time of year leaks are most common, what type of leak is most common, outdoor water use metrics, and if average community water consumption is increasing.

Data analysis of consumption issues can further assist the Village in implementing new programs or providing resources to address education gaps. Village of Phoenix residents are interested in education programs about how to save water and find/repair leaks (Figure 17). The need for these education resources is supported by extreme water consumption values during the August – September billing period, suggesting that customers may have experienced a leak (Figure 3). Data that supports residents’ requests can support the Village staff in directly address community needs.

Implementation Considerations:

- **Customer Engagement:** This recommendation will be most effective if customers engage with the EyeOnWater portal and share needs with the village. Processes to encourage customer engagement are to develop outreach campaigns to encourage EyeOnWater participation (Recommendation 1.2) and conduct surveys or community meetings to provide residents with a platform to share their experiences.
- **Defining Scope:** AMI data and the EyeOnWater platform provide a large amount of data that can be leveraged to learn more about the Village of Phoenix residents’ water-related needs. Prior to digging into the data and information, the questions and scope of work should be defined to facilitate an efficient process that may be replicated in future years.
- **Standardizing Analyses:** Leveraging AMI data and EyeOnWater notifications offers the Village the opportunity to routinely assess the community’s challenges and needs. Establishing a standardized set of questions and analyses to conduct every 2 – 5 years will allow the Village to benchmark progress in addressing water-related issues.
- **Translating Data to Action:** Develop a plan to take the knowledge gained from data analysis and translate it into actional insights that inform programs and community support. This may take the form of small committee to oversee this task or meetings with consultants to support the work.

Priority: Low

Phasing: Long-Term

Resources Needed:

- The Village of Phoenix staff time
- Collaboration with EyeOnWater technician and consultants
- Access to AMI data and EyeOnWater information

Who Leads: Village of Phoenix in partnership with EyeOnWater technician and consultants to conduct analyses

Intervention Strategy 4: Water Rates and Billing Practices

Among the many strategies used to address water affordability challenges within a community, modifying billing frequency and water rate structures can have a significant positive impact (Natural Resources Defense Council and National Consumer Law Center 2022c). Increasing the frequency of billing allows customers to pay lower bills on a regular basis and catch high water use caused by leaks or inefficient appliances sooner. In addition, altering the rate structure to support low water users through conservation-oriented rates can make bills more equitable by ensuring that customers who use less water pay a proportionally smaller amount compared to higher or discretionary water users. Overall, modified billing practices and rate structures can make bills more affordable for those who experience the highest financial burden.

Recommendations

4.1 Monitor rate structure implementation, conduct a financial review, and seek community feedback to determine if the revised rate structure successfully addressed the Village's water cost needs in an equitable fashion.

Starting in with the 2025 September – October billing cycle, Village of Phoenix will be implementing new rates that are 5% higher than previous rates established in 2024. The rate structure is currently a fixed rate for the first 2,000 gallons followed by a uniform rate for every 1,000 gallons. A fixed rate charge for all customers is a disproportionately large percentage of total water cost for those who use smaller amounts of water compared to large water users (Village of Phoenix 2025b). During the August – September billing cycle, 35% of active residential account holders consumed less than 2,000 gallons. There may be an opportunity to more equitably charge for water while still meeting the cost of services and financial need for capital improvements.

This recommendation suggests an evaluation of the new rate structure process over the course of the first year of implementation. Where, in spring 2026 begin a financial review

and community survey be conducted to determine if the revised rates address cost of service and additional financial needs through a process that maximized equity and water conservation throughout the community. Key variables which need to be identified in the financial include **(1)** the Village of Phoenix’s cost of services, maintenance, and capital investment, **(2)** assessment of current infrastructure maintenance needs **(3)** costs allocation among customer groups (i.e. business and residential), **(4)** financial reserves and goals, **(5)** the community characteristics and needs, **(6)** water conservation implications of rate changes. These will support the investigation and adoption of a revised rate structure (Carroll et al. 2024).

Beyond a financial analysis, additional rate structures that promote equitable water access should be considered along with community concerns (Natural Resources Defense Council and National Consumer Law Center 2022c). The combination of a financial analysis with community perspectives will allow for an intentional decision to keep or change the current rate structure.

Implementation Considerations:

- **Data Collection & Analysis:** Current and historical data on current service costs, revenue, and water consumption should be gathered assessed to support the study. AMI data may be used in this for this analysis. The process of collecting and organizing data for financial review will take time, and it provides an opportunity to modify management financial records if it would be beneficial for the Village of Phoenix.
- **Financial & Infrastructure Planning:** Conducting a cost-of-service analysis and investigating a new rate structure provides an opportunity to invest time in financial and infrastructure planning to prepare the community for future water needs.
- **Resident Perspectives:** Consider community surveys and meetings to discuss the rate evaluation with residents throughout the process. This transparency will foster community trust and support in the rate evaluation and generate support for future decisions.
- **Utilize Resources:** Take advantage of previous studies and resources on rate structures which may inform the cost-of-services study and rate structure consideration.

Priority: High

Phasing: Short-Term

Resources Needed:

- The Village of Phoenix staff time
- Consultant to support financial analysis/cost of service study
- Current and historical financial records
- Historical consumption records

Who Leads: Village of Phoenix in partnership of a consultant to conduct the evaluation

Intervention Strategy 5: Water Bill Burden and Debt

Water debt is growing across the country, and low-income households are spending an increasing share of their income on water utility bills (Environmental Protection Agency, 2024). Additionally, unpaid bills lead to late fees and potentially water shut offs, which negatively impact quality of life and exacerbate cost-of-living challenges faced by low-income households. Water utilities must therefore identify strategies that provide immediate financial relief to customers in need, while also addressing the long-term unaffordability of water bills that lead to non-payments. Water debt relief and bill pay assistance programs are therefore key pieces to an effective water affordability strategy. These strategies are most effective when they help keep households from accruing debt over time while also preventing late payments in the future (Natural Resources Defense Council and National Consumer Law Center 2021).

Recommendations

5.1 Review and update notification processes for late payments penalties and delinquent account shut off warning notices.

Active water accounts are at risk of shutoff if the cost of water has not been paid 30 days after bill rendering. Based on delinquent analyses, a majority of outstanding accounts from the August – September billing periods were at risk of a shut-off due to accrued water balance charges (Table 7). The Village of Phoenix staff reflected that it can be a challenge to get notices and bills to customers in a timely manner due to limited staffing and budget resources. The Village of Phoenix staff seek to update the process of billing through staff training and structural improvements.

One structural improvement is to evaluate the current delinquent payment and shut off warning process to better support account holders struggling to pay their water bill. Through the community survey, Phoenix residents reflected that more detailed information about shut offs would assist with water bill and use management (Figure 17). Reducing late

penalty fees to a value lower than 10% or extending the period of on-time payment after bill rendering may provide needed support to residents. Another option is to adopt a penalty that accrues with the length of nonpayment. The City of Chicago is a local example of this policy in action. In the City of Chicago, a water bill is due after 21 days of rendition and late fees accrue at a rate of 1.25% per billing cycle on late balances (City of Chicago 2025). This accrued style of penalty may improve speed of payment among customers and provide a long, more equitable timeframe for customers to pay their water bill.

Implementation Considerations:

- **Advanced Notifications:** Review and update the timing, content, and delivery method of notifications to ensure residents receive adequate advance notice before late fees or shut offs occur. Use multiple channels (email, text, EyeOnWater) to reach at risk residents.
- **Tiered Notifications:** Consider a tiered notification system, where the first notification is sent as a friendly reminder and subsequent notifications escalate to more urgent messages as the due date approaches.
- **Utilize EyeOnWater:** If notifications can be sent through the EyeOnWater, take advantage of this additional platform to communicate with residents.
- **Provide information and resources:** Include clear instructions on next steps, payment plan options, and available assistance programs for customers in notification processes.
- **Pilot testing:** Test revised notifications with a small group of residents to gather feedback on clarity, timing, and delivery method before full implementation.
- **Track effectiveness:** Collect information and feedback on whether new notification processes prevent late payments and shut offs. This may be done through a survey or data analysis on time payments to evaluate the effectiveness of communication over time.
- **Connect with renters:** Consider ways to share notices with renters when their landlord or property manager has not paid their water bill.

Priority: High

Phasing: Medium and Long-term

Resources Needed:

- The Village of Phoenix staff time
- Updated notification language and process documentation
- Collaboration with EyeOnWater technicians
- Funding to support development and implementation of new delinquent payment policies and processes

Who Leads: Village of Phoenix in partnership with EyeOnWater technicians to implement notification and process changes

5.2 Evaluate community needs to develop tailored assistance and affordability programs.

Through the resident survey, payment plans emerged as a key strategy for addressing water affordability challenges and providing residents will immediate financial relief, as previously discussed in [Section 4](#). Engagement findings further indicate that late or missed payments for participating residents stem from external life circumstances, such as unexpected expenses, job loss, or medical costs, rather than unwillingness to pay.

Currently, the Village does not offer formal bill pay assistance programs to residents, although assistance may be provided to residents on an ad-hoc, customer-by-customer basis. When paired with debt relief, leak repair and assistance, and equitable rate structures, establishing a formal assistance or affordability program would provide residents with critical short-term relief while supporting a long-term affordability strategy that helps prevent households from falling behind and accumulating debt (Natural Resources Defense Council and National Consumer Law Center 2022a). By ensuring that more people can pay consistently and on time, these programs also benefit the Village's financial stability and reduces staff time spent on collecting unpaid bills and disconnecting and reconnecting households unable to pay.

However, designing an effective assistance program is dependent on both municipal and community constraints, needs, and existing assets (e.g., customer demographics and income trends, Village leadership priorities, municipal revenue and financial considerations, administrative capacity, etc.). It is important to consider a range of assistance tools, such as payment plans, temporary bill credits or discounts, eligibility-based programs, or partnerships with existing state level programs to strengthen this

approach and align the Village’s efforts with broader affordability and customer service goals.

Implementation Considerations:

- **Data Collection and Analysis:** Collect information on how many residents may be eligible for a payment plan, discount program, or other bill pay assistance, and potential impacts to Village revenues. This can be done in conjunction with [Recommendation 3.2](#).
- **Benchmarking and Best Practices:** Gather information on programs offered by nearby municipalities to identify effective strategies and potential enhancements.
- **Resident Feedback:** Conduct short surveys or focus groups with participants to understand their experiences, barriers, and needs to inform the development of an assistance program.
- **Staff Input:** Engage Village staff to identify administrative challenges, workload impacts, and areas where clearer procedures or communication could improve assistance to residents.
- **Equity and Eligibility:** Assess whether proposed assistance solutions adequately serve low-income or vulnerable residents and consider adjustments. For instance, consider a percentage-of-income payment plan (PIPP), which “caps a monthly bill at a pre-determined percentage of a household’s income deemed to be affordable” instead of a flat dollar or percentage discount (Natural Resources Defense Council and National Consumer Law Center 2022a).
- **Provide Multiple Benefits:** Where possible, align and combine eligibility or enrollment processes with other municipal, regional, or state assistance and relief services for qualifying individuals, such as SNAP, energy efficiency rebates, or other social services. This maximizes benefits, reduces administrative barriers for residents, and increases reach of Village offerings to those that may need it most.
- **Participant Tracking:** Identify ways to track and analyze data on participants to distinguish between residents facing one-time financial hardship and those experiencing ongoing affordability challenges, helping tailor future assistance or outreach efforts.
- **Update Policies and Procedures:** Review and update the Village’s Ordinance to ensure that processes are up to date and reflect any changes made to the program.

Priority: High

Phasing: Medium-Term, Long-Term

Resources Needed:

- The Village of Phoenix staff time
- Funding to support assistance program evaluation, development, launch
- Potential payment to consultants

Who Leads: Village of Phoenix in partnership with consultant to conduct assistance program evaluation, development, and launch

5.3 Provide partial relief to customers that experience extraordinary water charges due to hidden leaks, line breaks, or circumstances outside of the reasonable control of the account holder.

Residents in the Village of Phoenix may struggle to pay an extraordinary water bill due to extreme water consumption caused by a leak or another unintended use of water. Evidence of this was observed in the data analysis, where a small number of residential account holders experienced extreme water consumption during the August – September billing period Figure 3. This was also evident for account holders who were unable to pay their bill on time and in full multiple times within the previous year, as 16% stated the bill was unaffordable due to unexpectedly higher than normal bill corresponding to water consumption (Figure 14).

The Village of Phoenix has an opportunity to address extreme water consumption that is beyond the control of the account holder and is not due to negligence in the form of partial relief. In this situation, the customer would have to provide evidence that the occurrence was extraordinary, and steps were taken to resolve the issue (e.g. repair the leak). If these conditions were met, partial relief could be provided. Penalty payments may be dropped or a discount on the total bill may be provided to ease the financial burden on the customer if all other conditions are met. The Village may consider setting a threshold and standards for partial relief. EyeOnWater notifications and AMI data could be used to confirm the extraordinary circumstances and confirm that the issue was resolved by the customer seeking financial relief.

Implementation Considerations:

- **Financial Analysis:** A financial analysis should be conducted to determine the total value, percentage of the extraordinary bill, or penalty fees are feasible for the Village to forgive.

- **Funding:** To allow partial financial relief for Village of Phoenix residents in extraordinary circumstances, a support fund must be allocated to cover the cost of water.
- **Standard Operating Procedure (SOP):** System process and guidelines must be established and recorded to facilitate this program for residents. This includes record keeping to align with payment plans and delinquent accounts.
- **Confirmation Processes:** Develop a system to confirm if the extraordinary use was beyond control of the account holder. EyeOnWater may be leveraged for this task.
- **Require EyeOnWater Enrollment:** The Village may consider requiring residents to enroll in EyeOnWater to receive partial relief and to prevent an extraordinarily high water bill in the future.
- **Application Development:** Develop an application for account holders to complete for relief eligibility.

Priority: Medium

Phasing: Long-term

Resources Needed:

- The Village of Phoenix staff time
- Reallocation of funds or additional funds to support water costs
- Communications development to share program details
- Development of program SOP to ensure viability

Who Leads: Village of Phoenix

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Appendix A: Full Village of Phoenix Water Affordability Recommendations List



Intervention Strategy 1: Customer Service, Outreach and Engagement

1.1 Develop a dedicated water affordability webpage on the Village website to provide residents with access to education and resources relating to water bills, water use management, and assistance opportunities.

1.2 Develop and implement a resident outreach campaign to promote the Village's new EyeOnWater.

1.3 Implement a water affordability outreach campaign to educate residents on water bill and use management, including one-on-one communications, a series of workshops, and investing in community partnerships focused on water affordability.



Intervention Strategy 2: Operations and Data Management

2.1 Streamline the Village's internal data management and record keeping systems to align with AMI and EyeOnWater consumption metrics and leak notifications.



Intervention Strategy 3: Water Conservation and Resident Leakage

3.1 Continue partnering with Elevate to advertise and enroll qualifying residents in the Cook County Leak Repair Program.

3.2 Leverage EyeOnWater information and AMI data to evaluate community water-related challenges and needs to create programs that address issues and concerns.



Intervention Strategy 4: Water Rates and Billing Practices

4.1 Monitor rate structure implementation, conduct a financial review, and seek community feedback to determine if the revised rate structure successfully addressed the Village's water cost needs in an equitable fashion.



Intervention 5: Water Bill Burden and Debt

5.1 Review and update notification processes for late payments penalties and delinquent account shut off warning notices.

5.2 Evaluate community needs to develop tailored assistance and affordability programs.

5.3 Provide partial relief to customers that experience extraordinary water charges due to hidden leaks, line breaks, or circumstances outside of the reasonable control of the account holder.
