



Office of the City Auditor

**Report to the City Council
City of San José**

**MUNICIPAL WATER BILLING
AND CUSTOMER SERVICE:
THE CITY CAN TAKE STEPS
TO ENHANCE CUSTOMER
SERVICE DURING AN
UNPRECEDENTED TIME**

**Report 21-05
October 2021**

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October 25, 2021

Honorable Mayor and Members
Of the City Council
200 East Santa Clara Street
San José, CA 95113

Municipal Water Billing and Customer Service: The City Can Take Steps to Enhance Customer Service During an Unprecedented Time

The San José Municipal Water System (Muni Water), owned and operated by the City of San José since 1961, is one of three water retailers in San José. It serves 26,000 customers across North San José, Alviso, Evergreen, Edenvale, and Coyote Valley. Most of Muni Water’s customers are single-family residential accounts (23,400 or 90 percent), and the remaining 10 percent (2,600) of customers are comprised of multi-family, commercial, industrial, and government accounts. Muni Water and its customers have been challenged recently by both the financial impacts from the COVID-19 pandemic and the region’s current drought conditions.

City staff from three primary departments—the Environmental Services Department (ESD), the Finance Department (Finance), and the Information Technology Department (ITD)—work together to deliver water, generate billing statements, and respond to customer needs. The objective of this audit was to assess the accuracy of billings and customer service for Muni Water.

Finding 1: The Billing Process Ensures Accurate Billing Statements to Customers. The City prepares bills for each Muni Water customer on a bi-monthly basis. The billing process involves several steps to ensure that meters are working properly and that bills are accurately calculated. Based on our review we found:

- Bills in our sample were accurate and key inputs—such as customer information, rates, and meters—aligned with customer information in CIS, the City’s utility billing system.
- Formulas were calculated correctly and were based on Council-approved water rates and charges.

Finding 2: Muni Water Can Take Steps to Better Notify Customers and Respond to Leaks. ESD receives alerts of potential water leaks through its regular meter reading process. However, most customers are not notified of these potential leaks, in part because staff uses a manual process to notify customers. In addition, ESD can improve its processes surrounding meter investigations and service orders. We found:

- From March to May 2021, the City notified Muni Water customers of potential leaks for just 29 percent of CIS-generated leak alerts (1,107 out of 3,822 instances).
- The City may be able to expand leak notices with currently available tools by collecting additional contact information from customers and automating the leak notification process.
- The criteria used to initiate meter investigations have not changed since 2016, and there is not an established review process to ensure that criteria for investigations continue to reflect the greatest risks.
- The current process for completing service orders in the field is paper-based and managed by two separate teams. Enabling the teams to coordinate service orders electronically could improve operational efficiency.

RECOMMENDATIONS:

To better notify customers about potential leaks and increase operational efficiency, the City should:

- Collect additional contact information from customers and automate the leak notification process
- Periodically evaluate the criteria used for meter investigations
- Streamline the service order process
- Update the methodology used to assess performance

Finding 3: Muni Water Can Enhance Customer Service by Making Information More Accessible. The City provides information to Muni Water customers in several ways, including through its bi-monthly bills, mailed notices, social media, and website. Through these channels, customers are notified about important information about their water service, including service charges they owe, potential water shutoffs, and water conservation practices. We found:

- Information on the Muni Water website can be expanded to address the most common customer service requests.
- The City has translated notices and policies as required by the state’s Water Shutoff Protection Act. However, other customer-facing materials and platforms are not available in both Spanish and Vietnamese.
- The City has established service options for low-income and medically vulnerable customers, as required by the Water Shutoff Protection Act, but it has not registered any customers under these designations.
- ESD and Finance can take additional steps to enhance communications, such as offering additional billing detail online, using plain language in some of its notices, and standardizing messaging across different platforms or materials.

RECOMMENDATIONS:

To increase accessibility of information to customers, the City should:

- Expand Muni Water’s website content to address additional common requests
- Improve language accessibility
- Make it easier for low-income and medically vulnerable customers to apply for assistance programs
- Make detailed billing statements available online and standardize information across different platforms and materials

Finding 4: Customers Are Facing Financial Burdens Due to the Pandemic. The COVID-19 pandemic has had a significant financial impact on Muni Water customers. In response to financial burdens felt statewide, California instituted a moratorium on water disconnections in March 2020, which has been extended through December 31, 2021. We found:

- As of June 2021, more than 1,160 Muni Water customers owed a combined total of \$1.1 million in overdue balances. This is more than 18 times what was owed in December 2019, before the pandemic.
- The City billed \$1 million in late payment charges in FY 2020-21.
- A substantial number of Muni Water customers potentially face water shut offs.
- Financial assistance may be available to customers through both existing and new federal and state programs, including the Low Income Household Water Assistance Program, the California Water and Wastewater Arrearages Payment Program, and California’s Rental Relief Program.

RECOMMENDATIONS:

To address the financial burdens of the pandemic on Muni Water customers, the City should:

- Implement a combination of strategies to assist customers, potentially including automatic enrollment into payment plans, outreach about state or local assistance programs, or distributing financial assistance to customers

This report has 13 recommendations. We plan to present this report at the November 1, 2021 meeting of the Transportation and Environment Committee of the City Council. We would like to thank the Environmental Services Department, the Finance Department, the Information Technology Department, the City Attorney’s Office, and the Budget Office for their time, information, insight, and cooperation during the audit process. The Administration has reviewed the information in this report, and their response is shown on the yellow pages.

Respectfully submitted,



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This report is also available online at www.sanjoseca.gov/audits

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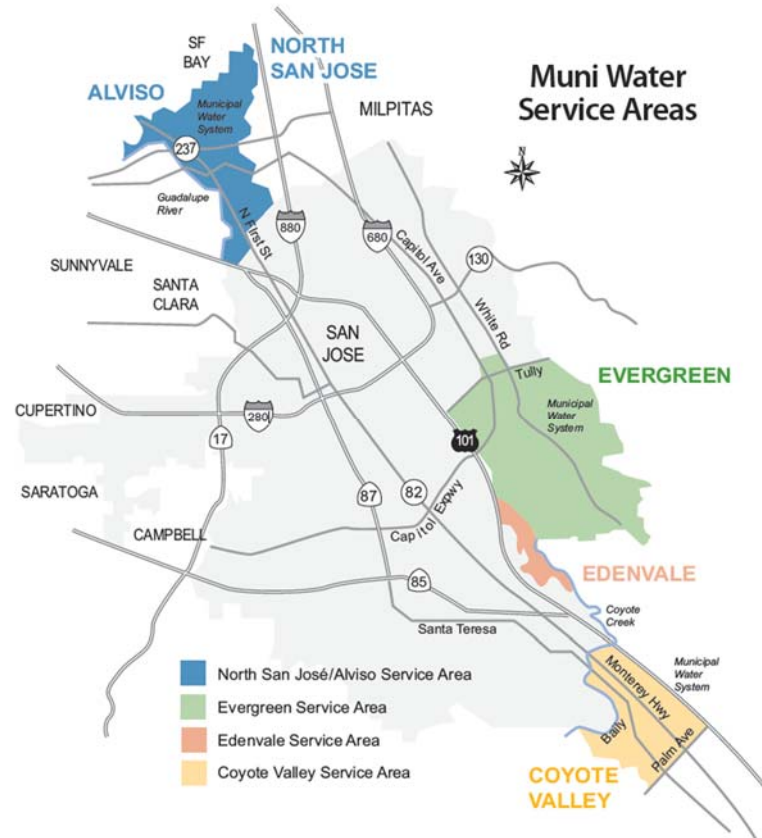
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Background

The San José Municipal Water System (Muni Water) is one of three water retailers in San José. Owned and operated by the City of San José since 1961, Muni Water serves customers in North San José, Alviso, Evergreen, Edenvale, and Coyote Valley.¹

Exhibit I: Muni Water Service Areas



Source: 2020 Water Quality Report, ESD.²

Muni Water serves 26,000 customers, including: single-family residential (23,400 or 90 percent), multi-family (1,220 or about 5 percent), and commercial, industrial, and government accounts (1,380 or about 5 percent).³

¹ The City of San José purchased the Evergreen Water Company in 1961 to establish the San José Municipal Water System. The Municipal Code §15.08 outlines the Municipal Water System and its services, service areas, fees and charges, as well as other details on running the service.

² <https://www.sanjoseca.gov/home/showpublisheddocument/74689/637594386152600000>

³ Muni Water customer data is as of June 2021. Muni Water serves approximately 12 percent of the City's population. San José's Water Company and Great Oaks Water Company, the City's other water retailers, serve approximately 80 and 8 percent, respectively.

Multiple departments are involved in Muni Water operations and customer service. There are 50 full-time equivalents (FTE) across various departments whose work is related to Muni Water, with most FTE in the Environmental Services Department. The following are the three departments involved:

- The **Environmental Services Department** (ESD) operates and maintains the water system and infrastructure to deliver water to customers.
- The **Finance Department** (Finance) manages customer billing, collections, and payment processing.
- The **Information Technology Department** (ITD) oversees the Customer Contact Center, which handles inquiries from Muni Water customers.

While each department has a role in serving Muni Water customers, coordination across the departments is essential to provide customer service. For example, when a customer calls into the call center reporting a high bill, a customer service representative (CSR) in ITD will communicate with ESD staff, who will investigate the meter. If ESD staff identify a leak in the portion of the meter that the City maintains, ESD will fix the leak and Finance will make adjustments to the customer's account.

Customers Have a Favorable Perception of Muni Water

Since 2014, ESD has conducted a survey every two years of its customers to understand their perceptions of Muni Water's reliability, ease of use, water quality, responsiveness, and customer service. The most recent survey was completed in February 2020, with 1,535 respondents in three languages providing answers online or over the phone.⁴

Overall, the results showed customers have a relatively favorable perception of Muni Water.⁵

- **Overall favorability:** 66 percent of respondents rated Muni Water as favorable (very or somewhat), compared to 21 percent who rated it as unfavorable (very or somewhat). The proportion of favorable respondents has decreased slightly since 2014.
- **Water service reliability:** 78 percent of respondents were satisfied with water service reliability, while 6 percent reported being dissatisfied. Customer satisfaction in this area has slightly decreased since 2014.

⁴ There were 23 respondents who completed the survey in Spanish and 17 who completed it in Vietnamese.

⁵ Some respondents responded "Don't Know" to certain questions, so percentages do not necessarily add up to 100 percent.

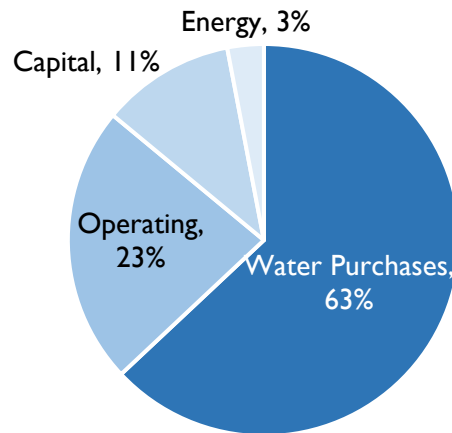
- **Responsiveness:** 56 percent of respondents were satisfied with Muni Water’s responsiveness, and 9 percent were dissatisfied. In 2014, 52 percent of respondents were satisfied in this area and 6 percent were dissatisfied.
- **Customer service:** Over half (55 percent) of respondents were satisfied with Muni Water’s customer service, while 10 percent were dissatisfied. These figures have remained about the same since 2014, when 53 percent reported being satisfied and 8 percent were dissatisfied.

Muni Water Rates and Charges

The City sets Muni Water rates with the expectation that it fully covers the costs of delivering potable water. The primary cost component is purchasing water from Valley Water (formerly known as the Santa Clara Valley Water District) and the San Francisco Public Utilities Commission. Valley Water serves as the primary wholesaler for water utilities in Santa Clara County.

Exhibit 2 shows that 63 percent of Muni Water’s costs are for purchasing water. Operations, including maintaining and managing Muni Water’s infrastructure, accounts for 23 percent of costs. Funding capital improvements and paying energy costs account for the remaining balance.

Exhibit 2: Muni Water’s Rates Are Primarily Driven by Water Purchases



Source: Auditor illustration based on data based on information provided by the Environmental Services Department.

Muni Water customers receive their bill every two months. The main components of a bill are a quantity charge and a meter service charge.

- **Quantity Charge:** This charge is based on how much water the customer consumes. The rate charged per water unit varies based on the location of the customer (see Appendix B for tables of rates and charges). Water is delivered to customers through a series of pipes that go through a meter box. As water flows through the meter box, a meter tracks water usage by hundreds of cubic feet (HCF).⁶ A transponder, which is a device attached to the meter, sends meter readings to devices carried by Muni Water staff in the field.
- **Meter Service Charge:** Each customer pays a bi-monthly meter service charge dependent upon the size of their meter. Meter sizes are typically determined when a property is first connected to water service. Projected water usage, the size of a house, and other factors may influence the size of a meter.

In addition, bills include a 5 percent utility tax and any supplementary charges, such as late fees. Exhibit 3 shows a sample bill of a residential customer.

⁶ One hundred cubic feet (HCF) equals 748 gallons.

Exhibit 3: A Sample Bill for a Residential Water Customer

Rev. 10/10/2022



FOR CUSTOMER SERVICE
 City of San José
 200 East Santa Clara Street
 San José, CA 95113
 Phone (408) 535-3500

PLEASE SEND PAYMENT TO
 PO Box 398242
 San Francisco, CA 94139-8242
IN CASE OF WATER EMERGENCY:
 CALL (408) 363-4742

Invoice No: 19254808

Page 1 of 1

Customer No.	Account No.	Online/Phone Banking Number <small>Please use as account number for your online/phone banking.</small>	Bill Date	Amount Due*	Due Date
[REDACTED]	[REDACTED]	[REDACTED]	Oct 15, 2020	\$230.32	Nov 09, 2020

Service Address: [REDACTED] SAN JOSE

Service Type	Meter No.	Billing Period	Previous Reading	Current Reading	HCF <small>(Hundred Cubic Feet)</small>	Gallons <small>(748 gallons/HCF)</small>
Water Residential	[REDACTED]	8/4/2020 to 10/6/2020	274	284	10	7,480

Water Rec

8/2020 8/2021

For Your Information
 Do you need affordable internet at home? If you use CalFresh, SNAP, Medi-Cal, SSDI, or have a child on the School Lunch Program, you may be eligible for a free device and internet service at \$10-\$20 per month. Call 408.716.3811 for info.

ACCOUNT SUMMARY

Previous Bill		\$226.13
Payment		(\$124.58)
Balance Forward		\$101.66
	Usage	Rate
Water Residential Zone 2	10.00	\$4.390
Water Meter Charge (63 days)		\$57.20
Utility Tax		\$5.06
Water Residential #16008607	10.00	\$106.16
Late Payment Charge		\$22.61
		\$22.61
TOTAL AMOUNT DUE		\$230.32



City of San José
 200 East Santa Clara Street
 San José, CA 95113

Please return this portion with your payment

* Payment must be received by due date to avoid late fee.

Customer/Account No.	Due Date	Amount Due*	Amount Enclosed
[REDACTED]	Nov 09, 2020	\$230.32	\$

[REDACTED]
 SAN JOSE CA [REDACTED]

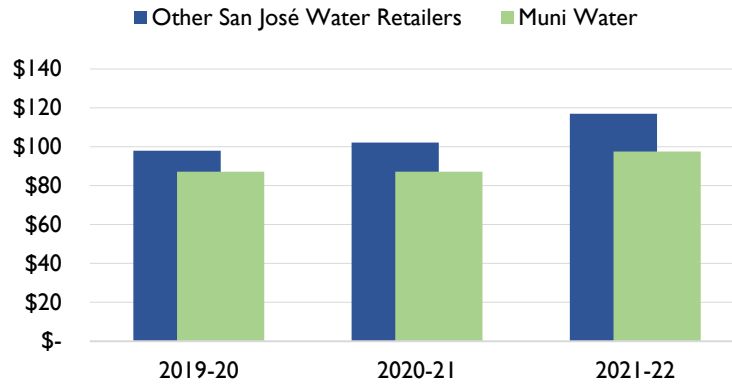
Make payments to:

City of San José
 PO Box 398242
 San Francisco, CA 94139-8242

Source: Bill sample provided by the Finance Department, redacted to protect sensitive information.

As shown in Exhibit 4, Muni Water residential customers generally pay less for water than most other San José residents.⁷ However, water costs are projected to increase for all San José residents in FY 2021-22.

Exhibit 4: Comparison of Projected Monthly Residential Water Costs



Note: For illustrative purposes only; amounts are based on water usage of 13 hundred cubic feet (HCF) with a 3/4-inch meter and the actual and projected rates paid by San José residential customers.

Source: Auditor analysis based on San José residential water rates.

In May 2021, Valley Water, the region’s wholesale water provider, approved an increase to wholesale water rates for FY 2021-22, which took effect in July. To offset the rising cost of water from the worsening drought and to maintain and upgrade the water district’s aging infrastructure, Valley Water also projected a 10 percent increase for each of the next seven years after FY 2021-22. As shown in Exhibit 2, wholesale water purchases account for approximately 63 percent of Muni Water’s operating costs.

The City Uses Various Systems and Platforms to Provide Customer Service

The City uses various technological applications for billing and customer service.

- 1) Customer Information System (CIS):** CIS serves as the City’s utility billing system. It contains information on customer accounts, water usage, and bill history, and helps staff track service orders and tasks. ESD, Finance, and ITD are responsible for different areas of CIS and coordinate with each other to help manage the system, as shown in Appendix C.

⁷ San Jose Water Company residential customers pay the highest rates for water within the city, followed by Muni Water and Great Oaks Company residential customers. As noted previously, most San José residents are serviced by San Jose Water.

- 2) **E-Bill Express:** This platform is used by customers paying their City utility bills online. Customers can create an account to pay their utility bills, including setting up automatic payments.
- 3) **WaterSmart:** This is a third-party platform that allows water consumers to view and monitor their usage.⁸ The platform offers conservation tips and notifies customers when they have potential leaks.

Advanced Metering Infrastructure (AMI) Pilot

The City meters consist of a meter body that measures water usage and an electronic transponder that sends meter readings over short distances. According to ESD, most of the meters were installed in 2017 and have an average useful life of 20 years.

ESD has been piloting Advanced Metering Infrastructure (AMI), commonly referred to as 'Smart Meters'.⁹ This pilot consists of three vendors that each serve 100 residential customer meters across the North San José/Aviso, and Evergreen areas. AMI automatically uploads water usage data to the cloud on a regular basis, eliminating the need for staff to drive through Muni Water's service areas. The technology can allow customers to track water usage on a more frequent basis through an online portal or smartphone app and helps customers detect potential water leaks.

ESD is planning to fully implement AMI in future years and considers AMI a key component in helping Muni Water meet upcoming state conservation requirements. However, it is uncertain when the City will be able to fully implement AMI, as ESD is still evaluating funding options and the project is not yet included in ESD's five-year capital project plan.

Drought Declaration and State Conservation Requirements

Santa Clara County declared a local drought emergency in June 2021 because of the region's extreme drought conditions. Over the past year, San José received its lowest amount of rain in 128 years while the County's largest reservoir, Anderson Reservoir near Morgan Hill, was ordered to be drained by the federal government to make improvements for earthquake safety.

In declaring the drought emergency, the County also expressed its support for mandatory water reductions announced by Valley Water. The reductions call on residents to reduce their water usage by 15 percent compared to 2019 levels.

⁸ WaterSmart is administered by the Bay Area Water Supply and Conservation Agency (BAWSCA).

⁹ The pilot involves a 12-month trial period with each vendor providing a final report for evaluation. With the final data collection period set to end January 2022, ESD has released a request for proposal for a consultant to assess the pilot program results, assist in selecting the vendor, and help plan for the implementation of AMI.

Valley Water reported in August that most of the region's water retailers, including Muni Water, had so far not been able to meet the target.

The State of California has also enacted conservation requirements that take effect beginning in 2022. California Senate Bill 606 and Assembly Bill 1668, enacted in 2018, set efficiency standards for indoor and outdoor use, as well as water lost to leaks. Starting in 2022, the indoor use standard will be 55 gallons per person per day, dropping to 50 gallons by 2030. Enforcement is set to begin in 2024.¹⁰

¹⁰ The laws do not impose individual mandates for homeowners or businesses but rather on water suppliers. Outdoor use standards will be available in 2022. Enforcement includes informational orders starting in 2024, written notices starting in 2025, and conservation orders starting in 2026.

Finding I **The Billing Process Ensures Accurate Billing Statements to Customers**

Summary

Bills are distributed to Muni Water customers on a bi-monthly basis. These bills go through a series of reviews to ensure that the billed amounts are correct before being sent to the customer. Accounts which appear to have abnormal bills or water usage are flagged by the system for City staff to review meter readings and bills for accuracy. Before being billed, all flags must be cleared by staff review or field investigations. We sampled 510 bills to test whether they were generated appropriately, aligned with Council-approved rates, and matched customer information in the City's utility billing system. In our sample, we found that bills and inputs were accurate.

Multiple Steps in the Billing Process Help Ensure Accurate Bills

Muni Water customers receive bills every two months. The process to prepare bills includes multiple checkpoints to ensure customers are being charged accurately and that meters are working properly. Staff from both ESD and Finance review the customer accounts and as necessary, dispatch ESD Water Systems Operators to verify meters are working properly in the field.

Exception Processes Identify Abnormalities Before a Customer Is Billed

Bills are generated from meter readings that are collected by ESD Water Systems Operators in the field. Staff use handheld devices which receive meter readings sent from transponders attached to each meter. Meter readings are then uploaded into the City's Information System (CIS) and used to determine water usage and calculate a customer's bill.

Before a bill is sent to customers, it goes through two rounds of review.

- 1. Pre-Exception Process:** After water usage is calculated from a meter reading, staff in ESD generates a report through CIS, which flags customer accounts if the meters or water usage appears abnormal. Examples of flags in the system are: *zero consumption*, *consumption too low*, *consumption too high*, *estimated read*, and *meter turnover*.¹¹

¹¹ High consumption and low consumption are where a meter reading appears too high or low based on prior usage. Zero consumption occurs when the meter reading does not show any usage. Estimated reads are calculated when there is no meter reading recorded and the system estimates a read based on past usage. Finally, meter turnover occurs when a meter reaches its numerical limit and starts from zero again, or if a read comes in lower than the prior recorded read. Pre-exception parameters are discussed more in Finding 2.

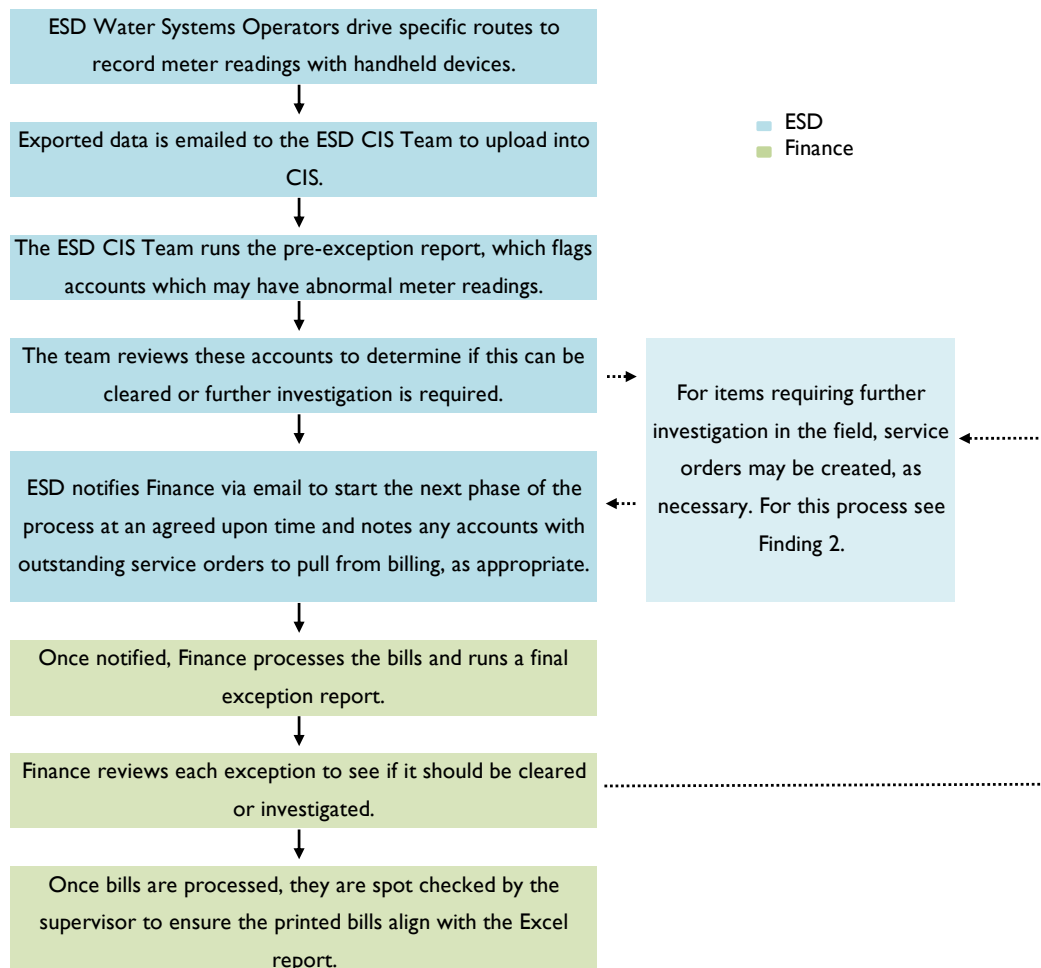
If an account is flagged, staff in ESD review the customer's data to see if they are able to account for why it was flagged, or if needed, staff create a service order for a Water Systems Operator to investigate in the field (see Finding 2 for more details on the meter investigation process).

2. **Exception Process:** After a billing amount is calculated, City staff use CIS to run a second report based on the billed data to ensure it is generated accurately. Besides similar flags tagged in pre-exception review, Finance receives flags such bill amount is greater than \$1,000 for residential customers, and bill amount is greater than \$10,000 for non-residential customers.

If an account is flagged during this stage, staff in Finance will determine if the issue can be resolved, or they will notify ESD and a Water Systems Operator may be sent out into the field to investigate. An example in which Finance staff may be able to resolve an issue without a field investigation is if a commercial customer's bill is more than \$10,000. If the customer's bill history is routinely above \$10,000, staff may resolve this item, because it is usual activity for that account.

All exceptions and pre-exceptions must be resolved before a bill is sent to a customer. Exhibit 5 diagrams the meter reading collection and review process.

Exhibit 5: Meter Reading and Review Process



Source: Auditor analysis of correspondence with staff, interviews, and procedures.

The Sample Tested Showed Accurate Billing Statements

We reviewed 510 billing statements from two of the eight billing cycles for April and May 2021. In each of the bills, we tested to ensure that customer information was accurate; that the quantity usage and meter charge were calculated correctly based on the meter readings, location, and meter size; that all meters under each account were appropriately accounted for; and that additional charges on the account (e.g., late payment charges) were charged in accordance with policy.

Overall, the bills reviewed in the audit sample were accurate and aligned with the meter readings and water usage documented in CIS.¹²

Additionally, we reviewed the key inputs into CIS, including charges, customer accounts, and Council-approved water rates for both FY 2019-20 and FY 2020-21 (which can be found in Appendix B of the report). These inputs appeared to be accurate for the last two fiscal years.

¹² While the bills were accurate, there were a few anomalies noted when reviewing a larger proportion of billing data. In 5,083 bills, about 2 percent or 82 bills, had due dates three days before the bill should have been due. We verified that these customers did not receive a subsequent late payment charge as a result. Additionally, when testing late fee waivers over the last 3.5 years for appropriateness, we observed 6 out of 1,929 customers received additional late payment charge waivers that they should not have, of which five of the six instances were due to different staff completing the task simultaneously.

Finding 2 Muni Water Can Take Steps to Better Notify Customers and Respond to Leaks

Summary

ESD receives potential water leak alerts through its regular meter reading process. However, most customers are not notified of these potential leaks, in part because the process is manual. From March 2021 through May 2021, ESD notified less than one-third of customers with a potential leak. While leaks are generally the responsibility of customers to fix, informing customers can help them find and address water leaks before they escalate, which is especially important as the region faces a worsening drought. ESD can also improve its processes for meter investigations. The criteria used to generate service orders for meter investigations have not been updated since 2016, and most investigations performed by ESD staff find meters and equipment were working correctly. Finally, ESD can realize operational efficiencies by streamlining its service order process. The current process is paper-based and managed by two separate teams, requiring the teams to manage service orders by physically exchanging handwritten paper files at ESD's facility.

Muni Water Can Improve the Process to Alert Customers of Potential Water Leaks

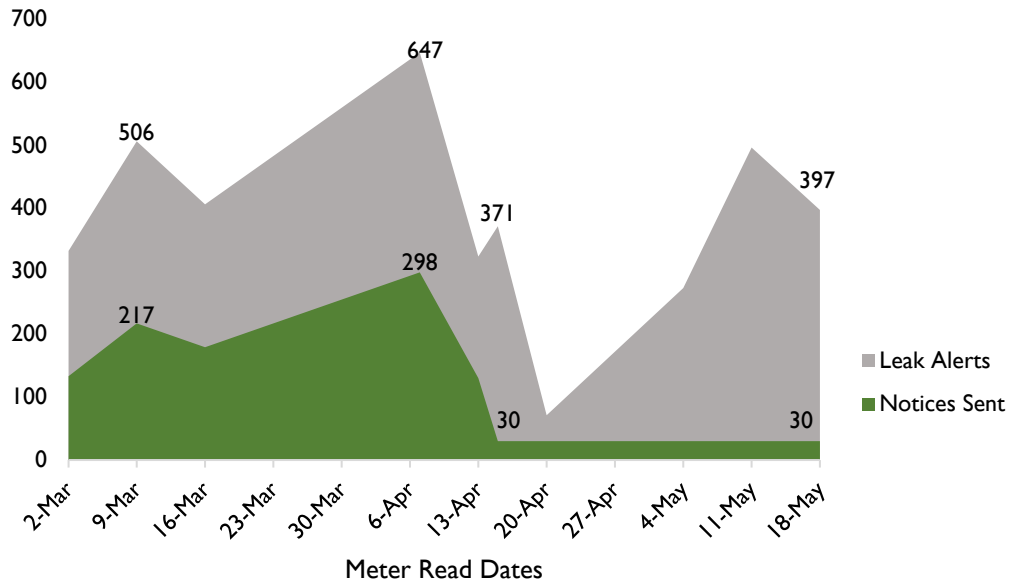
Muni Water's quality control process alerts City staff to potential water leaks. Based on pre-defined settings, if water passes through a meter during each 15-minute interval for 24 straight hours, the CIS system produces a leak alert, regardless of the quantity of water that may be passing through the meter.¹³ From January through June 2021, this process triggered over 8,900 water leak alerts, or about 1,500 a month.

Although staff review available data on potential leak alerts, most alerts are not communicated to customers. As seen in Exhibit 6, of the 3,822 leak alerts generated from March 2, 2021 through May 18, 2021, only 29 percent, or 1,107, of the alerts were passed along to customers, leaving many customers at risk of higher bills and water loss.

From March 2nd to May 18th, **only 29 percent** of the potential leak alerts were passed along to customers.

¹³ These settings are pre-defined by the meter's manufacturer and cannot be adjusted.

Exhibit 6: Not All Leaks Resulted in Leak Notices Sent to Customers



Source: Auditor analysis of leak alert data from CIS.

Note: The drop in notifications starting on April 13 through May 18 was due to ESD not providing email notifications.

The Leak Notification Process Is Manual and Excludes Most Customers

ESD staff provide leak notifications via email, letters, and phone calls. Customers who have provided the City with an email address receive email notices. However, only 9,000 out of 23,400 single-family residential customers have registered emails with the City, which leaves most customers unable to receive these notices.

Letters and phone call notifications are provided to the 30 residential customers with the highest water consumption during a cycle.¹⁴ Staff report that restricting notifications to the top 30 residential customers is intended to maximize the efficiency of existing staff resources as the process is manual. However, this approach also leaves most customers at risk of not receiving any leak notifications from Muni Water.

¹⁴ The number of customers that ESD selects to receive call or letter notifications may be adjusted, however this has typically been the top 30 customers.

From November 2019 to February 2021, the City sent **zero** water leak notices due to turnover in staff.

Because the leak notification process relies on availability of one staff position in ESD, it can also be impacted by turnover and vacancies. From November 2019 to February 2021, Muni Water was not sending water leak notices because the staff member who had been responsible for sending notices had left the City, and the position could not immediately be backfilled.

Providing Leak Notices Can Help Customers Identify Water Leaks Earlier and Avoid Costly Bills

Although water leaks are generally the responsibility of customers to fix, providing notices can help Muni Water work with its customers to identify leaks earlier and help avoid wasting water and to be receiving costly bills. From January through June 2021, 20 customers reached out to Muni Water to report water leaks or a high bill. In nearly all these cases, Muni Water had been receiving potential leak alerts on the customers' accounts—sometimes for months or even years—but had either been delayed in providing notice, or had not notified the customers at all.¹⁵

Several of the customers that were not notified do not have a registered email address or do not appear to consume enough water to reach the top 30. Had these customers not initiated an investigation, they may have continued to pay higher water bills with greater water waste as a result of the leaks.

Muni Water May Be Able to Use Current Tools to Automate and Expand Leak Notices

The City currently uses WaterSmart, a third-party platform, to provide customers mailed water use reports. WaterSmart also allows the City to provide customers automated email notices for water leaks and high-water use. To use this feature ESD must have the customer's email address, but as noted earlier, it does not have email addresses for most Muni Water customers.

WaterSmart can also provide automated notices through mail, text, and voice messaging; however, these additional communication channels must first be enabled. In doing so, Muni Water may be able to improve the number of customers viewing the notifications. Of the nearly 2,000 leak email notices in 2021, a little over half were opened by customers.

The City should also consider automatically enrolling customers to receive automated alerts through WaterSmart, with the option of opting out, while making

¹⁵ In one instance, ESD had been receiving leak alerts for two and half years. During this time the customer's bill increased by more than threefold, from \$106 to \$336. It was not until this customer called into the call center complaining about a high bill did ESD send a technician to investigate. The investigation found that the leak was from a portion of the meter that is the City's responsibility to maintain. Once fixed, the City credited the customer's account for the increased water use.

sure to follow the City's Digital Privacy Policy.¹⁶ The City takes a similar approach with mailed water usage reports, which are automatically sent to eligible customers who can later opt out if they wish.

The City Can Make It Easier for Customers to Report Water Leaks

The City can make it easier for customers to report water leaks, which could help Muni Water detect and resolve leaks earlier.

From 2018 to 2020, customers on average reported 282 water leaks per year, or about 24 per month, representing around 4 percent of the calls for service Muni Water completes annually. This number could potentially increase if customers were able to report water leaks online or through the City's 311 app.¹⁷ Currently, the City's 311 website directs customers to call or email to report a water leak, and although Muni Water's website provides customers a phone number for reporting water emergencies, it does not specify that customers should use the number to report water leaks. According to ESD, water emergencies, such as leaks, are critical for staff to promptly respond to and resolve.

In comparison, San José Water, the region's largest water retailer, allows its customers to report water leaks online and specify the severity of the leak to help the retailer prioritize its response.

Recommendations:

- I: To improve the City's leak notification process, the Environmental Services Department and the Information Technology Department, should, in coordination with the City Attorney's Office and in accordance with the City's Digital Privacy Policy:**
 - a) Develop a process to collect the email addresses and mobile phone numbers of existing customers, and**
 - b) Enroll customers to receive automated leak notices via text, voice message, mail, and/or email through WaterSmart or another mechanism as appropriate, while providing customers the option of opting-out from receiving such notices.**

¹⁶ The City's Digital Privacy Policy (City Council Policy, 0-46) requires City departments to ensure that any personally identifiable information collected, used, shared, or stored by the City is protected and complies with applicable laws and regulations. Enabling automated leak alerts may require the City to share personally identifiable information with WaterSmart, a third-party platform.

¹⁷ The 311 app is used to report abandoned vehicles, illegal dumping, and other issues in the city but does not have a specific category to report water leaks.

2: The Environmental Services Department should coordinate with the Information Technology Department to create an online form or a category in SJ 311 to notify the City of water leaks and the severity of the water leak.

ESD Should Regularly Evaluate and Adjust the Criteria for Meter Investigations

As described in Finding 1, during the regular billing process, irregular meter reads are identified for City staff to investigate (the pre-exception process). Meter investigations, which make up the largest share of service orders performed by ESD staff, are a direct result of this process. For example, if a meter reading was flagged because an account used much more water than it had in the past, staff will review the reading and account to determine whether an investigation is needed, as the high reading could be an indicator of a water leak.

However, the current criteria Muni Water uses to determine meter investigations result in most pre-exceptions being flagged for under consumption rather than increased consumption. Moreover, while most meter investigations find equipment working properly, i.e., false positives. In a sample of meter investigation service orders, 69 percent were false positives (i.e., the equipment was working appropriately and providing accurate reads). The false positive rate is in line with staff estimates.

Exhibit 7 shows the criteria Muni Water uses for pre-exceptions. From January through June 2021, over 75 percent of the pre-exceptions were for *consumption too low or zero consumption*; 22 percent were for *consumption too high*.

Exhibit 7: Criteria for Identifying Irregular Meter Reads

Pre-Exception	Criteria
Consumption too high	Read is 325% more than past historical usage
Consumption too low	Read is 85% less than past historical usage
Zero consumption	No water consumption was measured during the read
Meter Turnover	Meter has reached its numerical limit and has started from zero again, or the read came in lower than the prior read (reads are cumulative)
Estimated Read	No meter read was recorded for the period and the resulting estimated read is based on past usage

Source: Muni Water’s Pre-Exception Processing procedures and meetings with the CIS team.

ESD Should Reevaluate Exception Criteria to Better Identify Potential Water Leaks

Water leak data suggest that the criteria for *consumption too high* may be too high of a threshold to detect water leaks that could result in significant increases in water waste. Several of the accounts that reported water leaks had their water usage increase by more than double and in one case almost triple. However, because the increases in water use did not reach the 325 percent threshold, these were not flagged for potential equipment issues. Had they been flagged, ESD may have been able to identify the water leaks earlier.

By lowering the *consumption too high* threshold, Muni Water may be able to improve its ability to notify customers of water leaks. This is especially important to help customers save water during the current drought and help the City meet drought-related conservation targets described in the Background.

Regularly Evaluating Pre-Exceptions Can Help Focus Staff Time on Most Likely Problems

Because the pre-exception criteria determine whether a service order is created for ESD staff to respond to, regularly reviewing and updating the criteria can help the City focus staff responses on the most important risks. ESD reports that the current pre-exception criteria were last reviewed and updated in 2016 and were based on industry data. ESD also reports that in setting the pre-exception criteria, there was no intention of favoring one type of pre-exception over another. The San Francisco Public Utilities Commission reported that they have updated their criteria in response to a past drought.

ESD may also be able to decrease its high false positive rate by incorporating the insight of staff in evaluating pre-exceptions. For example, staff have identified *Meter Turnover* as a key risk indicator in detecting equipment issues. This aligns with what we found in sampling service orders.

Recommendation:

- 3: To help manage meter investigation service orders, the Environmental Services Department should:**
- a) Develop a process for periodically assessing pre-exception parameters using data around past results and staff insight, and**
 - b) Adjust pre-exception parameters to better identify potential water leaks.**

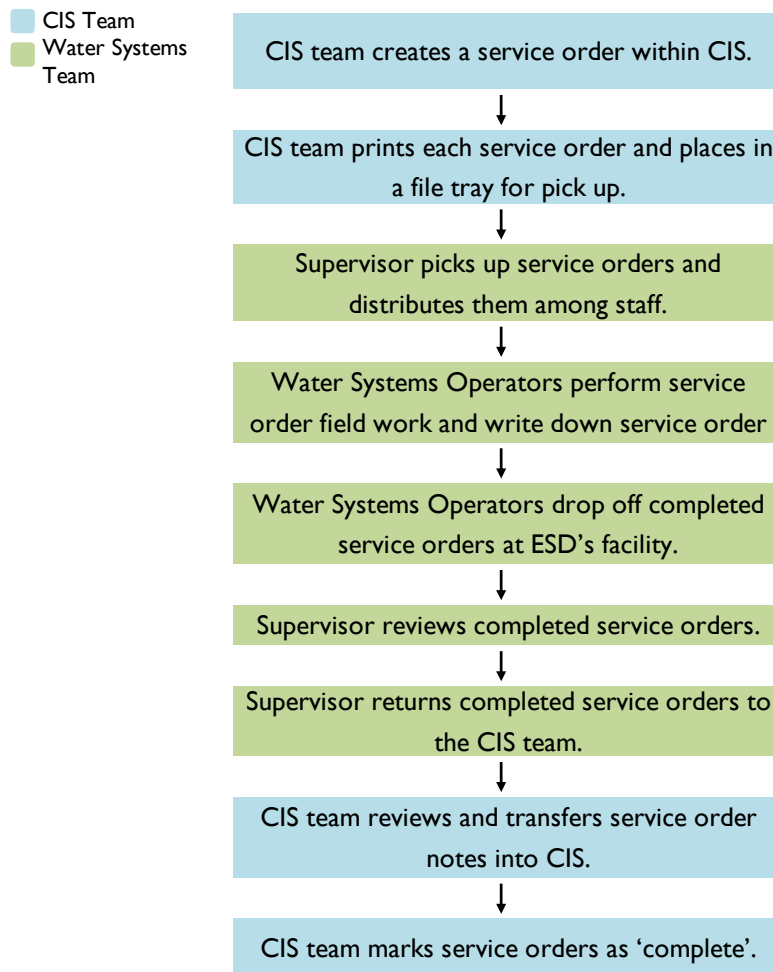
Streamlining the Service Order Process Can Improve Operational Efficiencies

Muni Water's service order process is currently managed by two separate teams. The ESD CIS (Customer Information System) team creates service orders, updates service order status, and marks service orders as complete. Water Systems Operators complete the service order work out in the field. Completing service orders and ensuring all pre-exceptions are cleared are critical to the billing process and ensuring accurate reads. Billing cannot proceed until pre-exceptions are cleared. Prior to the pandemic, Muni Water completed 159 service orders each week on average, or a little over 8,000 a year.

The current service order process is paper based, requiring the two teams to largely communicate by physically exchanging paper files at ESD's facility and interpreting handwritten notes. It appears that the process could be streamlined if the two teams could coordinate service orders by exchanging electronic files, such as through email or other means. This could eliminate the need for staff to return to ESD's facility to pick up and drop off service order assignments and reduce the risk of errors from transcribing handwritten notes.¹⁸ Exhibit 8 shows the current process.

¹⁸ According to ESD and ITD, CIS has a module that would allow Muni Water to automate the service order process. However, according to the departments, purchasing the module may be cost prohibitive.

Exhibit 8: Current Service Order Process



Source: Auditor analysis based on Muni Water staff interviews

The Performance Measure for Timeliness Should Use Operational Data Rather than Survey Data

In the City’s operating budget, ESD reports the following Muni Water related performance measure: “% of customer service requests handled within 24 hours”. However, the data for this measure comes from ESD’s biennial customer survey rather than existing operational data. The survey asks customers if they placed a call to Muni Water within the last 12 months and if so, how long did it take for Muni Water to respond to the customer’s request.¹⁹

¹⁹ In its FY 2020-21 Adopted Operating Budget, ESD estimated the measure at 70 percent for FY 2019-20 versus a target of 71 percent.

Using operational data rather than survey responses for the measure would allow Muni Water to better assess performance, and to monitor performance more frequently and across different service request types.

Recommendations:

- 4: To streamline the service order process, the Environmental Services Department, in coordination with the Information Technology Department, should update the process to enable staff to coordinate service orders electronically.**
- 5: To better assess performance, the Environmental Services Department should revise the performance measure methodology for “% of customer service requests handled within 24 hours” to use operational data instead of customer survey data.**

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Finding 3 Muni Water Can Enhance Customer Service By Making Information More Accessible

Summary

The City provides information to Muni Water customers in several ways, including through its website, social media, mailed notices, and bi-monthly bills. Customers are notified through these channels about important information about their water service, including service charges they owe, potential water shutoffs, and water conservation practices. We found that the City can take additional steps to enhance its communication with customers by expanding web content and providing more customer-facing materials in Vietnamese and Spanish. In addition, the City can make it easier to enroll customers in the City's service options for customers who qualify as low-income or medically vulnerable. Currently, no Muni Water customers are enrolled in these designations. Lastly, the City can make its billing process more accessible to customers by updating its instructions on how to read a bill, providing customer statements online, and using plain language on notices.

The City's Website Can Better Address Common Customer Topics

The City provides information to Muni Water customers through a variety of ways, including bi-monthly bills, mailed notices, social media, and its website. ESD uses both online and offline means to communicate with Muni Water customers. ESD's Water Conservation Outreach Plan for 2021 outlines the use of social media posts, advertisements using various online platforms, radio ads, laundromat television screens, and bus shelter posters to reach residents in multiple languages.

Information Related to Frequent Customer Service Requests Can Be Expanded

The City website is an important tool to provide information to Muni Water customers. Over a six-month period, the Muni Water landing page saw 6,000 page views.²⁰ While the website contains a variety of content related to Muni Water service, the information provided could be expanded to provide further information about frequent customer service questions.

The Muni Water homepage received **6,000 page views** in the first six months of 2021.

²⁰ <https://www.sanjoseca.gov/your-government/environment/water-utilities/drinking-water>

Common Customer Service Workload Types Are Late Charge Waivers and Shutoffs

Staff perform a variety of tasks related to fees, billing, and accounts to address customer requests and concern.²¹ As shown in Exhibit 9, the most common type of task during the first five months of 2021 was late charge waivers, which constituted almost half of total task workload.²²

Exhibit 9: Common Types of Customer Service Workload

Most Common Types of Tasks	Frequency	Percent of Tasks
Late Charge Waivers	246 tasks	47 percent
Adjustment Requests	76 tasks	15 percent
New Accounts	34 tasks	7 percent
Cancellations	33 tasks	6 percent
Leak Adjustment Requests	27 tasks	5 percent

Source: Auditor analysis of CIS task data from January to May 2021.

Note: This table is not a comprehensive list of task types, so the percentages do not add up to 100 percent. Account adjustments include late payment charge cancellations, misapplied payments (i.e., to wrong accounts), credits for overpayments, and late charge waivers.

In addition to completing tasks, staff respond to service orders in the field (such as turning water on/off or checking meters). For example, from January 2018 to January 2020, the City performed 2,309 water shutoffs for nonpayment, or about 92 per month.

Website Content Relating to Common Customer Service Workload Can Be Expanded

Frequent customer requests (such as late charge waivers) and service order types (such as shutoffs and meter investigations) could indicate what information may be most appropriate for the website. In some cases, the Muni Water website does not contain content related to these requests.

To address common concerns, the ESD website has a list of frequently asked questions (FAQs) covering different service areas of the Department, including Muni Water.²³ However, the FAQs contain a limited amount of content and are not consistent with the FAQs on ITD's 311 website, which are more comprehensive. According to staff, there is no existing process to ensure that the FAQ topics are consistent with each other.

²¹ Tasks represent workload related to fees, billing, and accounts, and service orders represent workload staff performs in the field (such as turning water on/off or checking meters).

²² These derive from customers requesting late charge waivers, which the City can grant every two years up to \$500 each time. As required by the Water Shutoff Protection Act, low-income customers are eligible for late charge waivers once a year, as discussed later in this finding.

²³ <https://www.sanjoseca.gov/your-government/department-directory/environmental-services/test-esd-faqs>

In other instances, the information on the website is not easily accessible. For example, the only place on ESD's Muni Water website where policies relating to late charges, late charge waivers, and shutoffs/reconnections are described is in Muni Water's *Water Service Policies and Procedures*, which must be downloaded as a PDF from the Muni Water homepage to view. The document itself, being formatted as a legal policy, is not presented in a very customer friendly format.

Lastly, the *Water Shutoff Protection Act* requires that water utilities report on their websites the annual number of water shutoffs for nonpayment. While there have not been any disconnections due to the moratorium, the City will need to provide this information on its website, as described in the Act.

Departments Can Better Coordinate on Website Content for Customers

Muni Water customer service is provided by multiple departments; however, there is not a cohesive website and information strategy across ESD, Finance, and ITD. Each department handles different aspects of customer service and does not consistently coordinate with the others to ensure standardized and effective messaging.

The City's Customer Service Guidelines (CPM 1.2.9) encourage departments to review their website content regularly and make corrections where appropriate. Having departments coordinate and review website content could help ensure more relevant information is included on frequent customer service-related requests, which can enhance the overall customer experience and better facilitate customer requests with staff.

Recommendation:

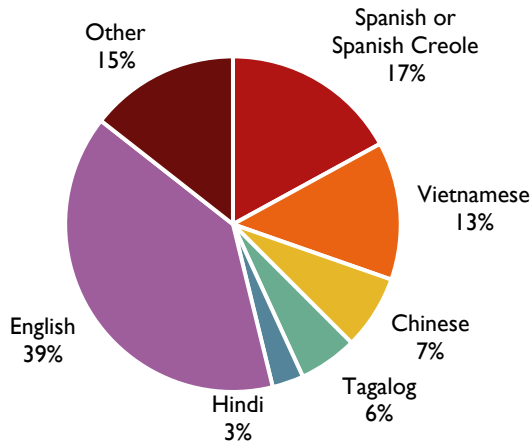
6: The Environmental Services Department, the Finance Department, and the Information Technology Department should coordinate to centralize and compile key website content on the Muni Water website for customers, potentially including:

- **Payment and account adjustments**
- **Late fee charge and waiver policies**
- **How to report water leaks**
- **Information required to start and stop service**
- **Overview of water shutoffs and reconnections policies and timeline, as well as water shutoff data as required by the Water Shutoff Protection Act (SB 998)**
- **Other important information the departments deem necessary**

The City Provides Some Translations of Materials and Can Make More Available

Residents in Muni Water service areas speak a variety of languages. According to the most recent Census Bureau data, the most commonly spoken languages after English among residents in these service areas are Spanish and Vietnamese, as seen in Exhibit 10. Census data also indicated 60 percent of Vietnamese speakers and 36 percent of Spanish speakers in Muni Water’s service areas have limited English proficiency.

Exhibit 10: Languages Spoken in Muni Water Service Areas



Source: ACS 2015 5-year estimates (Table B16001), U.S. Census Bureau. Percentages are based on a total of 184,000 individuals living within Muni Water service areas. These are the most recent estimates.

State and City Requirements Provide Direction for Language Translations

California’s Water Shutoff Protection Act (Senate Bill 998) contains language accessibility requirements, mandating that a water utility’s “written policy on discontinuation of residential service for nonpayment” and “notices of payment delinquency and impending discontinuation” (otherwise known as the *Notice of Termination*) must be available in English, the languages listed in §1632 of the Civil Code, and any other language spoken by at least 10 percent of the people residing in its service area. These languages include Spanish, Vietnamese, Tagalog, Korean, and Chinese.

The City’s Language Access Policy (CPM 6.1.10) allows departments, in consultation with the City Attorney’s Office, to decide which materials to translate, depending on the “importance of program, information, or service.” One

exception is phone trees, which the Policy lists as a priority for departments.²⁴ Other optional materials include application forms and notices of loss of services.

The City Complies with State Guidelines, But Can Further Provide Translated Materials to Muni Water Customers

The City has translated many of Muni Water's materials, including online instructions and notices, into multiple languages. These include the *Water Service Policies and Procedures and Notice of Termination*, as required by the Water Shutoff Protection Act. Additionally, the customer service phone tree is available in English, Spanish, and Vietnamese, and staff representatives can connect callers to a language line for other languages, as needed.

However, language accessibility can be made more consistent across the documents and platforms for Muni Water customers. While some Muni Water materials are translated in Spanish and Vietnamese or contain notes in those languages on how to obtain translated information, other materials are not translated and do not contain notes.

²⁴ The Policy states that "City departments using telephone trees will endeavor to ensure that menus are available in multiple languages."

Exhibit II: Language Translations Are Available But Not Consistent

Item	Description	Translations Available
Muni Water Website	Homepage for the Muni Water system. Translations are enabled by Google Translate and are available for all general City websites.	Arabic, Chinese (Simplified and Traditional), Filipino, Hindi, Japanese, Korean, Persian, Portuguese, Russian, Spanish, Vietnamese
<i>Water Service Policies and Procedures</i>	An online document that contains Muni Water's policies on residential shutoffs, including information on late fees, Low Income and Vulnerable designations, and bill review process, among other areas.	Chinese, Korean, Tagalog, Spanish, Vietnamese
<i>Notice of Termination (mailed)</i>	A paper notice warning the customer of a water shutoff for nonpayment.	Chinese, Korean, Tagalog, Spanish, Vietnamese
<i>Notice of Termination (door hanger)</i>	A door hanger warning the customer of a water shutoff for nonpayment.	Chinese, Korean, Tagalog, Spanish, Vietnamese
How to Read Your Bill Instructions	An online guide to interpreting one's water bill.	Spanish, Vietnamese
3-1-1 Phone Tree	Automated phone tree when a customer calls the City's Customer Contact Center.	Spanish, Vietnamese
WaterSmart Online Platform ²⁵	An online platform for customers to view and monitor their water usage.	Spanish
E-Bill Express Phone Option	An automated phone system through which customers can pay their utility bills.	Spanish
E-Bill Express Online Platform	An online platform where customers can pay their utility bills.	None
Water Bill	A bi-monthly, mailed document informing customers of their water charges.	None
<i>Late Payment Notice (mailed)</i>	A paper notice informing the customer of late charges.	None
Low Income and Vulnerable Designations Application Form	A form for customers to apply for Low Income or Vulnerable designations.	None
Third Party Authorization Form	A form for customers to request that a third-party be notified of past due balances and notices regarding termination of water service.	None
Bill Appeal Form	A form for customers to submit an appeal of their water bill.	None

Source: Auditor summary based on auditor observations, department documents, and staff interviews.

²⁵ This platform is not managed by the City but contracted through an agreement with BAWSCA.

Recommendation:

- 7: The Finance Department and the Environmental Services Department should increase access to Municipal Water-related materials through:**
- a) **Identifying materials that could benefit from translation into commonly spoken languages in San José and making the translations available (e.g., late payment notices, the Low Income and Vulnerable Designations application form, and/or online customer platforms such as E-Bill Express).**
 - b) **Providing translated notes in commonly spoken languages on materials such as forms and bills, sent to customers with instructions on how to obtain translated versions or information.**

There Are No Customers Currently Designated as Low Income or Vulnerable Who May Be Eligible for Alternative Service Options

The Water Shutoff Protection Act requires water utilities to provide certain service options to customers who demonstrate financial hardship in paying their water bills and those that are deemed medically vulnerable to adverse health impacts from a water shutoff. As described in Finding 4, the COVID-19 pandemic has financially impacted Muni Water customers, making these options increasingly relevant. These options are listed in Exhibit 12.

Exhibit 12: Service Options for Low Income and Vulnerable Customers

Designation	Additional Service Options
Low Income	<ul style="list-style-type: none"> • Late fees waived every 12 months²⁶ • Discount on reconnection fees within regular working hours ²⁷
Low Income and Vulnerable	<ul style="list-style-type: none"> • An extended installment plan if the City determines the longer period is necessary to avoid undue hardship

Source: Auditor analysis of Water Shutoff Protection Act and the City’s *Water Service Policies and Procedures*.

The City’s Low Income and Vulnerable designations are modeled upon the requirements in the Water Shutoff Protection Act. A customer qualifies as Low Income if they:

²⁶ Municipal Code Section 15.08.330(F) allows the Director of Finance to “cancel the interest charges and late fees on residential municipal water services for those financially unable to pay.” Other customers are eligible for a late fee waiver every 24 months up to \$500.

²⁷ According to Council Resolution No. 79264 (2019), the reconnection fee during regular working hours for Low Income customers is \$50 (\$55 for other customers). The reconnection fee outside of regular working hours is the same for Low Income and other customers (\$95).

- Have income less than 200 percent of the federal poverty line, or
- Are a recipient of CalWORKs, CalFresh, general assistance, Medi-Cal, Supplementary Security Income/State Supplementary Payment program, or California Special Supplemental Nutritional Program for Women, Infants, and Children.

For a customer to qualify under the Vulnerable designation, they must provide “certification from a primary care provider that discontinuation of water service will be life threatening or pose a serious threat to the health and safety of a resident.”

The requirements of the Water Shutoff Protection Act went into effect February 2020, just before the COVID-19 pandemic. Census data from 2020 suggests that there are households within Muni Water service areas that are earning income less than 200 percent of the federal poverty line.²⁸ However, as of September 2021, there were no enrolled customers under the Low Income or Vulnerable designations.

The City Can Improve the Process for Registering Low Income and Vulnerable Customers

The current process to apply to the Low Income and Vulnerable designations is not customer friendly. Customers are required to print an English-only, non-editable form and submit it in person to the City Hall information desk. This was not possible from March 2020 through July 2021, as City Hall was closed because of the ongoing COVID-19 pandemic. Additionally, the form does not list the eligible income brackets, making it difficult for the customer to determine whether they qualify. City staff were also not notifying inquiring customers of this form.

Other jurisdictions have more customer friendly forms and allow customers to apply in a variety of ways:

- San José Water Company, Great Oaks Water Company, East Bay Municipal Utility District (MUD), and San Francisco Public Utilities Commission have PDF forms which customers can directly type into.
- San José Water Company, City of Santa Clara Water Utility, and East Bay MUD describe the qualifications for their low-income programs directly on their forms.
- Santa Clara Water Utility has an online application form for customers embedded directly on its website.
- East Bay MUD registers low-income customers through mail, email, fax, phone, in person, or an interactive form online.

²⁸ Not all households within Muni Water’s service areas are direct customers. For example, they may live in multi-family dwellings.

Recommendation:

- 8: To address the needs of low-income and medically vulnerable customers, the Environmental Services Department, the Finance Department, and the Information Technology Department should:**
- a) **Create an electronic form to register eligible customers and provide alternative ways to submit this form (i.e., virtually, through mail, or in person).**
 - b) **Document the qualification requirements, including income thresholds, on the application form.**

Muni Water Can Take Additional Steps to Enhance Communications Related to the Billing Process

A few primary ways in which the City communicates with its customers are through bi-monthly bills, the website, and mailed notices. These methods provide information pertaining to customers' bills and repercussions of missing payments that could result in water shutoff. By taking steps to improve access to alternative methods of viewing bills, ensuring a consistent message and instructions across platforms, and simplifying the language used to present information, the City can better help customers in paying their water bills.

Customer Bills Are Not Available Online

Billing statements are only available as a printed, English-only copy that is mailed by a separate vendor. This potentially limits the ability of customers with accessibility needs to read their bills. For example, those with vision impairments who may need to read in larger fonts are not able to easily read bills in the current paper format. These customers must call into the call center to have customer service representatives read them their invoice information. With an online bill, customers can use existing digital tools, such as screen readers, and can increase the font to accommodate their needs.

Other jurisdictions have taken steps to provide paperless billing options to customers. For instance:

- **San José Water** allows customers to access their account online at any time. It can also email customers when a bill is ready.
- **The City of Santa Clara** provides online billing options, allowing customers to choose from the options of fully paperless, mailed only, or a combination.

Although customers can pay bills online, full bill details are currently not available online. Making the detailed billing statements available online, rather than only total

invoice amounts, could enable customers to view their bills in a more user-friendly way and reduce reliance on having bills mailed by a vendor. Moreover, electronic bills have additional benefits of reducing paper costs and enabling multiple customers on a single account to view a bill.²⁹

Billing and Payment Instructions Should Be Updated or Made More Consistent

The City provides instructions online about how to read and interpret a bill. However, the current instructions are based on an outdated, tiered billing structure that the City has not used since at least 2017. Further, the instructions do not explain additional charges—such as late payment charges and returned check fees—that may appear on individual customer bills.

Additionally, while the City provides messaging about payment delays, this is not consistent between the website, instructions on how to read and interpret a bill, and the billing statement. This could impact customers’ ability to make timely payments.

For instance, customers accrue late payment charges when they miss a payment or pay late. This charge is either \$10 or 10 percent of the outstanding balance, whichever is higher. The current policy puts the onus on the customer to submit a payment several days ahead of the bill due date to ensure timely processing.

Instructions for utility billing on ESD’s Garbage and Recycling website notes:

Payments made through other options may take up to 5 days to be posted to your account. This includes bills paid in person, by mail, and drop box payments. To avoid late fees, mail your payment at least 3 to 5 days prior to the due date. Mail may be delayed by holidays.

However, this warning is not included on the Muni Water webpages or the City’s “Pay My Bill” webpage. Small font on the bill states, “Payments must be received by due date to avoid late fee.” However, this description does not provide the same guidance on how many days in advance of the due date to submit payments.

The City Should Use Plain Language for Late Payment Notices and Notices of Termination

Notices, including the *Late Payment Notice and Notice of Termination*, are distributed to customers relaying information on delinquent payments and water shutoffs. These are either mailed directly to customers or placed on the doors of a residence.

²⁹ Paper bills are estimated to cost about \$100,000 to print and mail annually for Muni Water’s 26,000 accounts.

While the notices meet the requirements of the Water Shutoff Protection Act, the notices include complicated language and jargon and in certain cases could be more straightforward. The City’s Customer Service Guidelines (CPM 1.2.9) state that “Easy-to-understand instructions, simplified forms, plain language, and up-to-date and accurate information are examples of efforts that will help ensure a positive customer experience.”

Exhibit 13 shows an example *Notice of Termination*. The *Late Payment Notice* includes similar language.

Exhibit 13: Notice of Termination Uses Complex Language

1 City of San José (“City”) records indicate your San José Municipal Water System account is past due. Water service at the premise address referenced above is scheduled for disconnection on the first business day that is more than 15 days from the date of this notice unless payment of the entire account balance is received. Your prompt payment will avoid any disruption in water service.

2 Customers may request an alternative payment arrangement before water disconnection by contacting the City Customer Contact Center at (408) 535-3500. Only one payment arrangement is allowed at any one time. New invoices generated during the period of payment arrangement must be paid by the due date.

Customer/Account No.	Unpaid Amount Due	Amount Enclosed
[REDACTED]	\$1,422.57	\$

Make payments to:
 City of San Jose
 PO Box 398242
 San Francisco, CA 94139-0242

Source: Auditor analysis of the *Notice of Termination* provided by City staff, redacted for sensitive information.

These notices are a critical step to inform customers during the water shutoff process. Improving and simplifying the language in these notices can help make it easier for customers to understand what the repercussions of not paying their water bills are and the timeline that they have before water services may be shut off.

Recommendations:

- 9:** To improve accessibility for customers to view and pay their bills, the Finance Department should work with the Information Technology Department to:
- a) Enable Muni Water customers to view detailed statements online, and
 - b) Provide customers the option to receive electronic statements.
- 10:** The Finance Department should update the “How to Read Your Bill” instructions to align with the current payment/rate structure and include explanations for the additional charges line items (i.e., late payment charges, returned check).
- 11:** To reduce the likelihood of late payments, the Finance Department and the Environmental Services Department should include consistent information on the bill, Muni Water’s website, and the City’s Pay My Bill webpage informing customers of the consequences of missed/late payments, including noting processing delays.
- 12:** To make Late Payment Notices and Notices of Termination more accessible, the Finance Department and the Environmental Services Department should use plain language on the notices, including the date by which payment or arrangement for payment is required in order to avoid discontinuation of residential service, and provide an overview of the water shutoff timeline.

Finding 4 Customers Are Facing Financial Burdens Due to the Pandemic

Summary

The COVID-19 pandemic has had a significant financial toll on Muni Water customers. As of June 2021, more than 1,160 Muni Water customers owed a combined \$1.1 million in overdue balances, 18 times what was owed in December 2019, before the pandemic. In addition, the City billed \$1 million in late payment charges in FY 2020-21. In response to financial burdens felt statewide, the California governor enacted a moratorium on water shutoffs which has been extended through December 2021. Although Muni Water will be able to resume water disconnections for customers with past due balances of more than 60 days past due when the moratorium ends, it is exploring ways to support its customers and prevent shutoffs, including aid from the federal Low Income Household Water Assistance Program (LIHWAP), the California Water and Wastewater Arrearages Payment Program, and California's Rental Relief Program.

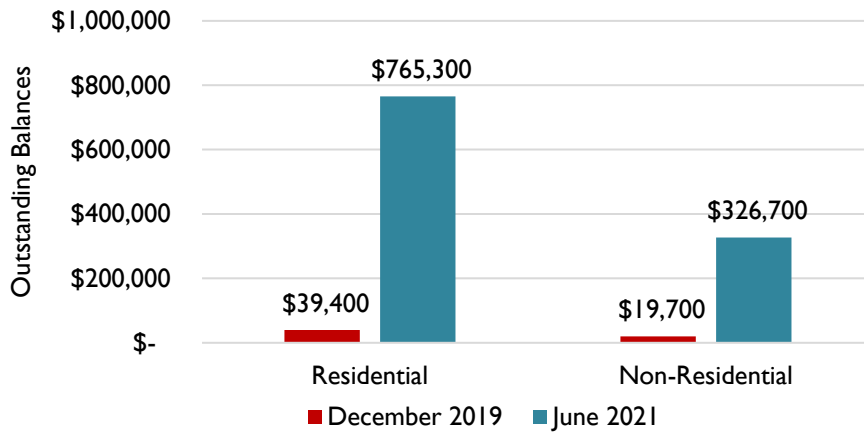
Outstanding Balances for Muni Water Customers Have Grown Significantly During the Pandemic

Overdue Muni Water customer balances have grown substantially since the start of the COVID-19 pandemic. In June 2021, there were at least 1,160 customers with outstanding balances totaling a combined \$1.1 million. By comparison, in December 2019, prior to the pandemic, 260 active customers had overdue balances totaling \$59,057.

Residential customers represent the largest proportion of outstanding balances. In June 2021, single-family residential customers had \$765,300 in overdue balances across 1,129 customers.³⁰ In December 2019, 255 single-family residential customers owed a total of \$39,400 in past due amounts. Similarly, non-residential customers balances grew from \$19,700 across 8 accounts in December 2019 to \$326,700 across 32 accounts in June 2021, as shown in Exhibit 14.

³⁰ There was only one multi-family customer with an overdue balance as of June 2021. According to staff, Muni Water does not typically shut off commercial and multi-family accounts for non-payment since the account holder is frequently not the business or tenant receiving the water on-site.

Exhibit 14: Outstanding Balances of Muni Water Customers Have Grown During the Pandemic



Source: Auditor analysis of a CIS report on outstanding balances of active customers as of June 22, 2021 and December 31, 2019. Amounts are rounded to the nearest hundred. Residential includes single-family and multi-family accounts. Non-Residential includes commercial, industrial, and government accounts.

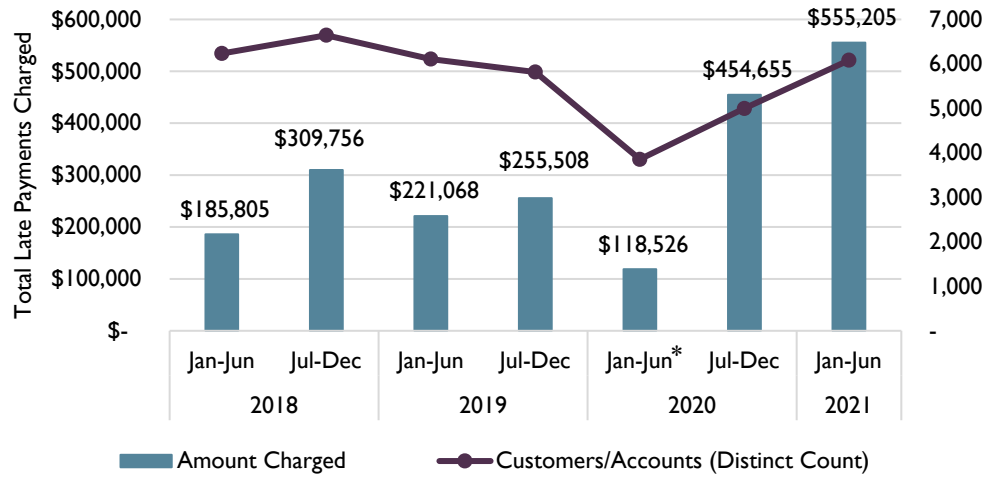
Late Payment Charges Have Been Accumulating Through the Pandemic

The City applies late payment charges to customers with delinquent balances.³¹ In April 2020, Council approved suspending late fees for Muni Water customers from March 17, 2020 to June 30, 2020 to “provide financial relief for individuals and businesses impacted by COVID-19.” This suspension ended in June 2020 and Muni Water resumed late payment charges in July 2020 (charging 10 percent or \$10 for late payments).

During FY 2020-21, the City billed 17,300 late payment charges to 8,000 distinct customers amounting to \$1 million. The 1,160 customers who still have outstanding balances with Muni Water have been charged \$489,000 in late payment charges over the past fiscal year, two-thirds of which were charged to single-family residential customers.

³¹ Delinquent balances are defined in the *Water Service Policies and Procedures* as being overdue by more than 25 days from the bill date for residential customers. Non-residential customer bills are delinquent 45 days from the bill date.

Exhibit 15: Late Payment Charges in FY 2020-21 Have Surpassed Past Years



Source: Auditor analysis of late payment charges using CIS data.

*As noted earlier, Council suspended late payment charges from March 17, 2020 – June 30, 2020.

Based on current practice, late fee revenue is transferred to the City’s General Fund. However, the \$1 million charged exceeds the \$300,000 anticipated amount of late payment fund transfers specified in the FY 2020-21 budget. The estimated annual transfer serves as an ongoing revenue source for the General Fund, but is not currently used for any specific services related to Muni Water customers.³²

Several other local water utilities have not charged late fees during the pandemic or have instituted a more flexible late payment charge waiver policy, as shown in Exhibit 16.

³² Any excess late fees collected in the prior year are typically recommended for transfer from the Water Utility Fund to the General Fund as part of the City Manager’s Annual Report. Similarly, if late fees fall below prior year estimates, a corresponding amount is recommended to be transferred from the General Fund to the Water Utility Fund.

Exhibit 16: Late Payment Charges Across Other Water Utilities

Jurisdiction	Late Payment Charges Prior to Pandemic	Late Payment Charges (post June 2020)
CSJ Municipal Water*	10% or \$10	10% or \$10
City of Santa Cruz	10%	No Fee
City of Santa Clara	1.5% or \$10	No Fee
East Bay MUD	1.5% or \$1	1.5% or waived if requested
SF PUC	\$3 plus 0.5%	No Fee
San José Water Company	No Fee	No Fee
Great Oaks Water Company	No Fee	No Fee

* The City of San José suspended late fees for Muni Water from March 17, 2020 - June 30, 2020. Source: Websites, Fees & Charges reports, interviews, and calls with staff.

A Substantial Number of Muni Water Customers Face Potential Water Shutoffs

In response to the COVID-19 pandemic, the State of California enacted a moratorium on water shutoffs in March 2020, which has been extended through December 31, 2021. While the utility had not conducted water shutoffs since the beginning of February 2020, the City is planning to resume shutoffs once the moratorium ends.

As described in *Water Service Policies and Procedures*, Muni Water can shut off water to a residential customer if a bill is delinquent for more than 60 days, or 85 days after a bill is due. As of June 30, 2021, 650 single-family customers had delinquent bills more than 60 days past the due date.³³

Before shutting off water service, City staff will attempt to contact the customer multiple times and through various methods, including mailed notices, door hangers, and phone calls. The shutoff and reconnection process is summarized in Appendix E.

To avoid a water shutoff, a customer must pay their outstanding balance or set up an alternative installment plan by calling the Customer Contact Center. If the payment has not been paid in full by the day of the shutoff, the customer can be disconnected.³⁴

³³ Prior to the moratorium, from January 2018 to January 2020, Muni Water conducted around 92 shutoffs and 85 reconnections per month for nonpayment.

³⁴ Having water shut off at a residence has significant implications on its inhabitants. According to Muni Code Section 17.20.900, residential properties must be connected to a water supply; otherwise, they are considered “substandard housing.” Code Enforcement staff report that in these cases, they may condemn a property, deeming it uninhabitable.

Current Programs May Offer Some Relief to Muni Water Customers

The City does not currently provide direct payment to help Muni Water customers recover from the pandemic. However, there are programs intended to assist utility customers pay their outstanding balances and avoid water shutoffs.

Current Procedures Allow for Installment Payment Plan

The *Water Service Policies and Procedures* allows any customer to request an installment plan to pay off outstanding balances. The typical installment plan consists of three payments, each about a third of the balance, due 7, 30, and 60 days after the date the customer began the plan.³⁵ This balance includes service charges and late fees and does not include amounts billed after the date the payment plan was entered into.

While it is not current practice for the City to auto-enroll water customers into payment plans, other utilities are planning to do so. Earlier in 2021, the California Public Utilities Commission announced that all investor-owned energy utilities must enroll customers with past due balances of more than 60 days into 24-month payment plans, with an opt-out provision for customers who do not wish to be enrolled. San José Clean Energy plans to enroll customers into payment plans once the moratorium on energy utility disconnections ends.

Existing Protections for Low Income and Vulnerable Designated Customers

As described in Finding 3, the Water Shutoff Protection Act requires water utilities to provide certain service options to customers who demonstrate financial hardship in paying their water bills and those that are deemed medically vulnerable to adverse health impacts in a water shutoff. These include:

- **Low Income customers:** Late fee waivers every 12 months and a discount on reconnection fees.³⁶
- **Low Income and Vulnerable customers:** An extended installment plan if the City determines the longer period is necessary to avoid undue hardship.

To qualify as Low Income, customers must have income within certain thresholds based on household size or be enrolled in certain programs. As noted in Finding 3, there is currently no one signed up.

³⁵ The City may offer a Low Income and Vulnerable customer a longer payment term to avoid undue hardship. Low Income and Vulnerable customers can be shut off if they fail to meet their terms of an installment plan for 60 days or more, or while in an installment plan, fail to make pay their current bills for 60 days or more.

³⁶ Municipal Code Section 15.08.330(F) allows the Director of Finance to “cancel the interest charges and late fees on residential municipal water services for those financially unable to pay.” Other customers are eligible for a late fee waiver every 24 months up to \$500.

ESD has a communications team that helps disseminate relevant information to residents. This team manages ESD's outreach including fliers, social media, and advertisements, to reach residents, such as those living within Muni Water service areas. Additionally, the City uses a "For Your Information" box on the bill to provide brief announcements to customers (a sample bill is shown in Exhibit 2 in the Background). The City can use these channels to spread the word about enrolling in these designations.

The City could also potentially collaborate with existing efforts to reach low-income customers, such as the rental relief program described later in this finding. Additionally, San José Clean Energy provides information to customers about low-income discount programs. As a starting point to identify low-income customers, with appropriate funding, San José Clean Energy could notify its customers in Muni Water services areas about other programs that can support water customers.

Other Jurisdictions Offer More Extensive Customer Assistance Programs

Other water utilities fund their own customer assistance programs to financially assist residents with paying for their water bills. These utilities provide reductions ranging from 15 to 25 percent off of a customer's water bill, using alternative funding sources allowable under Proposition 218.³⁷ The San Francisco Public Utilities Commission, reported in its budget that in FY 2019-20, more than 4 percent of eligible households were enrolled in their customer assistance program.

We estimate that a similar discount program offered by Muni Water would have an average annual cost of \$179 to \$298 per customer, depending on the amount of discount. While Muni Water does not have data on how many customers would qualify, if the City were to enroll 1,000 customers (about 4 percent of single-family residential customers), the discount program would cost between \$179,000 to \$298,000 a year.

Federal and State Assistance Is Becoming Available to Muni Water Customers

To address the needs of residents affected by the COVID-19 pandemic, the State of California and the Federal government have been working to make funding available to assist water customers with paying their bills. The City could leverage these funding sources to support Muni Water customers affected by the pandemic.

³⁷ Proposition 218 prohibits the use of ratepayer revenue to subsidize certain customers. Other utilities use funding sources such as customer donations, cell tower lease revenue, and formal budget allocation. Some utilities offering discount programs apply discounts up to a water consumption limit to avoid incentivizing high water use.

Potential Funding Under the Low Income Household Water Assistance Program

The United States Congress has appropriated \$638 million in the Consolidated Appropriations Act of 2021 and \$500 million in the American Rescue Plan Act of 2021 for a new program that would provide emergency financial assistance to low-income households on their water and wastewater bills. As a result, the federal Low Income Household Water Assistance Program (LIHWAP) was established to distribute this aid, with California currently allocated for \$116 million.

Once approved by the federal government, LIHWAP aid is expected to be distributed by the State to local service providers, such as Muni Water, which will then be responsible for conducting intake and outreach, verifying eligibility, and allocating payments to households.³⁸ The LIHWAP Supplemental Terms and Conditions states:

Grantees shall, in carrying out programs funded with this grant, as appropriate and to the extent practicable, use existing processes, procedures, policies, and systems in place to provide assistance to low-income households, including by using existing programs and program announcements, application and approval processes.

Additionally, it outlines requirements related to outreach:

The grantee will conduct outreach activities designed to ensure that eligible households, especially those with the lowest incomes, that pay a high proportion of household income for drinking water and wastewater services, are made aware of the assistance available under this title and any similar assistance available under the Community Services Block Grant program or through other emergency relief such as the Pandemic Emergency Assistance Fund and the U.S. Department of Treasury's Emergency Rental Assistance Program.

Federal guidance states that in addition to charges from water rates, the aid may also cover reconnection charges and late fees. The California Department of Community Services & Development will oversee this program.

California Water and Wastewater Arrearages Payment Program

In response to COVID-19 and the upcoming end of the statewide moratorium of shutoffs, the California Water Board is developing a program to assist water customers who accrued arrearages during the pandemic. This program is separate from LIHWAP and would use funding from the American Rescue Plan Act of 2021, with accompanying requirements associated with this funding source.

³⁸ LIHWAP uses 60 percent of the State Median Income as a threshold, which is higher than the Low Income thresholds used for Muni Water Customers.

Some potential requirements of this program may include auto-enrolling customers into 12-month or longer payment plans allowing customers 30 days to opt-out, waiving customer late fees accrued during the pandemic, not discontinuing water service until a customer defaults on the payment plan or opts out, and other related requirements.

California's Rental Relief Program Offers Utility Assistance

The State of California has also developed a program to provide rent relief and utilities assistance to income-eligible renters and their landlords who have been impacted by the COVID-19 pandemic. This program requires renters and landlords to register directly with the State to receive financial assistance. As of September 2021, the City has updated the Muni Water website to inform customers of this program.

As more programs and funding become available, Finance and ESD report that staff will provide updated plans to City Council on how to maximize these resources. If the City chooses to develop a customer assistance program for Muni Water customers, staff will need to work with the City's Budget Office to explore potential sources of ongoing funding.

Recommendation:

13: To help alleviate the financial burdens of significant outstanding balances owed by Municipal Water customers, the Administration should implement a combination of strategies, including:

- **Automatically enroll customers with overdue balances into payment plans when the moratorium ends,**
- **Conduct outreach to customers about the Low Income and Vulnerable designation service options, potentially leveraging the City's communications outreach and other existing efforts (e.g., San José Clean Energy, CA Rental Relief),**
- **Work with the City's Budget Office to explore potential sources of ongoing funding for customer assistance, including excess late payment charges, and/or**
- **Develop a process to distribute aid from Federal and State funding sources, such as from the Low Income Household Water Assistance Program (LIHWAP), to qualifying households and align the Low Income thresholds as appropriate.**

Conclusion

The City's Municipal Water System (Muni Water) delivers water to 26,000 customers in four service areas within San José: Evergreen, Edenvale, Coyote Valley, and North San José/Alviso. Muni Water billing and customer service are primarily provided by three departments: (1) the Environmental Services Department (ESD), which delivers water and maintains the water system infrastructure, (2) the Finance Department (Finance), which bills customers, and (3) the Information Technology Department (ITD), whose customer service representatives address calls from customers calling into the City's Customer Contact Center. The objective of this audit was to assess the accuracy of billings and customer service for Municipal Water services.

We found our sample of bills to be accurate. Nevertheless, there are steps the City can take to improve the quality and efficiency of customer service, particularly during a drought and pandemic. This includes increasing the number of customers notified of potential leaks, automating paperwork for ESD field staff, making additional bill information available online, and increasing language accessibility for customer-facing materials. The City can also expand information on the Muni Water website related to common customer requests. Lastly, considering the impact of the pandemic on customers, the City can better provide support by identifying Low Income and Vulnerable customers and distributing financial assistance, as available.

RECOMMENDATIONS

Finding 1: The Billing Process Ensures Accurate Billing Statements to Customers

No recommendations.

Finding 2: Muni Water Can Take Additional Steps to Notify Customers of Leaks

Recommendation #1: To improve the City's leak notification process, the Environmental Services Department and the Information Technology Department should, in coordination with the City Attorney's Office and in accordance with the City's Digital Privacy Policy:

- a) Develop a process to collect the email addresses and mobile phone numbers of existing customers, and
- b) Enroll customers to receive automated leak notices via text, voice message, mail, and/or email through WaterSmart or another mechanism as appropriate, while providing customers the option of opting-out from receiving such notices.

Recommendation #2: The Environmental Services Department should coordinate with the Information Technology Department, to create an online form or a category in SJ 311 to notify the City of water leaks and the severity of the water leak.

Recommendation #3: To help manage meter investigation service orders, the Environmental Services Department should:

- a) Develop a process for periodically assessing pre-exception parameters using data around past results and staff insight, and
- b) Adjust pre-exception parameters to better identify potential water leaks.

Recommendation #4: To streamline the service order process, the Environmental Services Department, in coordination with the Information Technology Department, should update the process to enable staff to coordinate service orders electronically.

Recommendation #5: To better assess performance, the Environmental Services Department should revise the performance measure methodology for “% of customer service requests handled within 24 hours” to use operational data instead of customer survey data.

Finding 3: Muni Water Can Enhance Customer Service by Making Information More Accessible

Recommendation #6: The Environmental Services Department, the Finance Department, and the Information Technology Department should coordinate to centralize and compile key website content on the Muni Water website for customers, potentially including:

- Payment and account adjustments
- Late fee charge and waiver policies
- How to report water leaks
- Information required to start and stop service
- Overview of water shutoffs and reconnections policies and timeline, as well as water shutoff data as required by the Water Shutoff Protection Act (SB 998)
- Other important information the departments deem necessary

Recommendation #7: The Finance Department and the Environmental Services Department should increase access to Municipal Water-related materials through:

- a) Identifying materials that could benefit from translation into commonly spoken languages in San José and making the translations available (e.g., late payment notices, the Low Income and Vulnerable Designations application form, and/or online customer platforms such as E-Bill Express).
- b) Providing translated notes in commonly spoken languages on materials such as forms and bills, sent to customers with instructions on how to obtain translated versions or information.

Recommendation #8: To address the needs of low-income and medically vulnerable customers, the Environmental Services Department, the Finance Department, and the Information Technology Department should:

- a) Create an electronic form to register eligible customers and provide alternative ways to submit this form (i.e., virtually, through mail, or in person).
- b) Document the qualification requirements, including income thresholds, on the application form.

Recommendation #9: To improve accessibility for customers to view and pay their bills, the Finance Department should work with the Information Technology Department, to:

- a) Enable Muni Water customers to view detailed statements online, and
- b) Provide customers the option to receive electronic statements.

Recommendation #10: The Finance Department should update the “How to Read Your Bill” instructions to align with the current payment/rate structure and include explanations for the additional charges line items (i.e., late payment charges, returned check).

Recommendation #11: To reduce the likelihood of late payments, the Finance Department and the Environmental Services Department should include consistent information on the bill, Muni Water’s website, and the City’s Pay My Bill webpage informing customers of the consequences of missed/late payments, including noting processing delays.

Recommendation #12: To make Late Payment Notices and Notices of Termination more accessible, the Finance Department and the Environmental Services Department should use plain language on the notices, including the date by which payment or arrangement for payment is required in order to avoid discontinuation of residential service, and provide an overview of the water shutoff timeline.

Finding 4: Customers Are Facing Financial Burdens Due to the Pandemic

Recommendation #13: To help alleviate the financial burdens of significant outstanding balances owed by Municipal Water customers, the Administration should implement a combination of strategies, including:

- Automatically enroll customers with overdue balances into payment plans when the moratorium ends,
- Conduct outreach to customers about the Low Income and Vulnerable designation service options, potentially leveraging the City’s communications outreach and other existing efforts (e.g., San José Clean Energy, CA Rental Relief),
- Work with the City’s Budget Office to explore potential sources of ongoing funding for customer assistance, including excess late payment charges, and/or
- Develop a process to distribute aid from Federal and State funding sources, such as from the Low Income Household Water Assistance Program (LIHWAP), to qualifying households and align the Low Income thresholds as appropriate.

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APPENDIX A

Audit Objective, Scope, and Methodology

The mission of the City Auditor's Office is to independently assess and report on City operations and services. The audit function is an essential element of San José's public accountability, and our audits provide the City Council, City management, and the general public with independent and objective information regarding the economy, efficiency, and effectiveness of City operations and services.

In accordance with the City Auditor's Fiscal Year (FY) 2021-22 Work Plan, we have completed an audit of Municipal Water billing accuracy and customer service. This audit was ranked high on the Citywide risk assessment and was requested by a resident. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The objective of this audit was to assess the accuracy of billings and customer service for Municipal Water services. To understand management controls and meet our audit objective, we did the following:

- Reviewed Customer Information System (CIS) data to understand workload, billing, and customer data and analyzed the following:
 - Customer accounts by type as of June 2021
 - Late payment charges, late payment charge waivers, and late payment charge cancelations over time
 - Task data over time
 - Service order data over time
- Sampled 510 billing statements, representing the 10th bill for two of Muni Water's eight billing cycles (MW04 and MW05) for the bills due in May 2021. These billing cycles were chosen as they included customer bills from every service area. We reviewed these bills to test for:
 - Accuracy of billing formulas
 - Meter sizes to ensure rates and sizes aligned with customer data
 - Rates aligned with the set rates for the service area
 - Customer information was correctly documented in the system
 - Late fees charged were aligned with City Policies
 - For City of San José specific accounts, we verified these aligned with the current process for internal government accounts (i.e., paid for through vis code and the department contacts aligned)¹

¹ In a few cases, there were delayed payments made on these accounts, and in one case the Department contact had retired from the City. Both of these items were brought to the attention of Finance and ESD.

- Qualitatively sampled 98 meter investigation service orders performed by Muni Water's Water Systems Operators in January 2021 to:
 - Review why the service orders were opened
 - Evaluate service order resolutions and meter equipment exceptions
- Interviewed the staff in the following work areas to understand the processes and operations
 - ESD Water Resources Division
 - ESD CIS Operations (in Administrative Services)
 - ESD Communications Division
 - Finance Utility Billing (in Revenue Management)
 - Finance Payment Processing (in Debt and Treasury Management)
 - ITD Customer Contact Center
- Observed the Muni Water Operations and Maintenance team responding to service orders in the field.
- Reviewed relevant internal and external documents related to Muni Water, including:
 - Water Service Policies and Procedures
 - Departmental organization charts
 - Muni Water customer forms
 - ESD internal procedures for service orders
 - ESD biennial customer survey results
 - Contracts with vendors
- Conducted web research and interviewed other jurisdictions, including the San Francisco Public Utilities Commission, East Bay Municipal Utilities District, City of Santa Cruz water utility, the City of Santa Clara water utility, San José Water, and Great Oaks Water.
- Tested the San José 311 phone tree in English and Spanish to evaluate ease of use and accuracy in these languages, and accuracy of translation. Additionally, we tested the path of the phone tree in English, Spanish, and Vietnamese.
- Reviewed Spanish and Vietnamese translations of Water Service Policies and Procedures to assess the quality of translations.
- Reviewed relevant sections of the Municipal Code (including Chapter 15.08 Municipal Water System, Chapter 4.80 Funds), the relevant sections of the City Policy Manual (including City's Customer Service Guidelines CPM 1.2.9 and the City's Language Access Policy CPM 6.1.10), and Council memoranda.
- Reviewed relevant state legal requirements that were significant within the audit objectives, including:
 - Water Shutoff Protection Act (Senate Bill 998)

- Proposition 218
- Governor's Executive Orders related to the moratorium on water shutoffs
- Reviewed federal and state guidance on the Low-Income Water Household Assistance Program, the California Water and Wastewater Arrearage Payment Program, and the California rental relief program.

The Office of the City Auditor thanks the Environmental Services Department, the Finance Department, the Information Technology Department, the City Attorney's Office, and the Budget Office for their time, information, insight, and cooperation during the audit process.

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APPENDIX B

Rates And Charges

Monthly Meter Charge

Meter Size	As of July 1, 2020	As of July 1, 2021
5/8 or 3/4 inch	\$28.60	\$30.89
1 inch	\$50.57	\$54.62
1 1/2 inch	\$87.17	\$94.15
2 inch	\$131.11	\$141.60
3 inch	\$270.23	\$291.85
4 inch	\$475.26	\$513.28
6 inch	\$1,039.06	\$1,122.19
8 inch	\$1,771.27	\$1,912.97
10 inch	\$2,796.38	\$3,020.09

Water Rates by Location Per Hundred Cubic Feet

	Coyote Valley	Evergreen / Edenvale				North San José / Alviso
		Zone 1	Zone 2	Zone 3, 4	Zone 5, 6	
As of July 1, 2020	\$2.10	\$4.31	\$4.39	\$4.70	\$5.09	\$5.13
As of July 1, 2021	\$2.26	\$4.96	\$5.06	\$5.39	\$5.81	\$5.54

Source: Adapted from the City website. Rates are in Dollars Per Hundred Cubic Feet. One HCF is equivalent to 748 gallons of water. Rates vary by location due to the different sources of water as well as the process to distribute the water to customers.

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APPENDIX C

RACI Matrix for Implementation of CIS

Task	R: Responsible	A: Accountable	C: Consult	I: Inform
Process water billing	Finance	Finance	ESD	Kubra*, Wells Fargo
Payment processing, posting and reconciliation	Finance	Finance	Finance, ESD, ITD	Residents
Address customer complaints on account accuracy	ITD	ESD	N/A	N/A
Address Customer Billing Complaints	ITD	Finance	N/A	N/A
Approvals of CIS application updates and upgrades	Finance, ESD	ESD	ITD	N/A
Routine audit of accuracy of account data	ESD	ESD	Finance	N/A

Source: Auditor depiction of the Muni Water RACI matrix for CIS provided by ITD.

Note: The RACI Matrix is a tool that distinguishes various roles and responsibilities of various stakeholders in a project. Not all tasks from the original RACI Matrix are shown.

*Kubra is a vendor that the City works with to print and mail bills.

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APPENDIX D

Communication Channels to Muni Water Customers

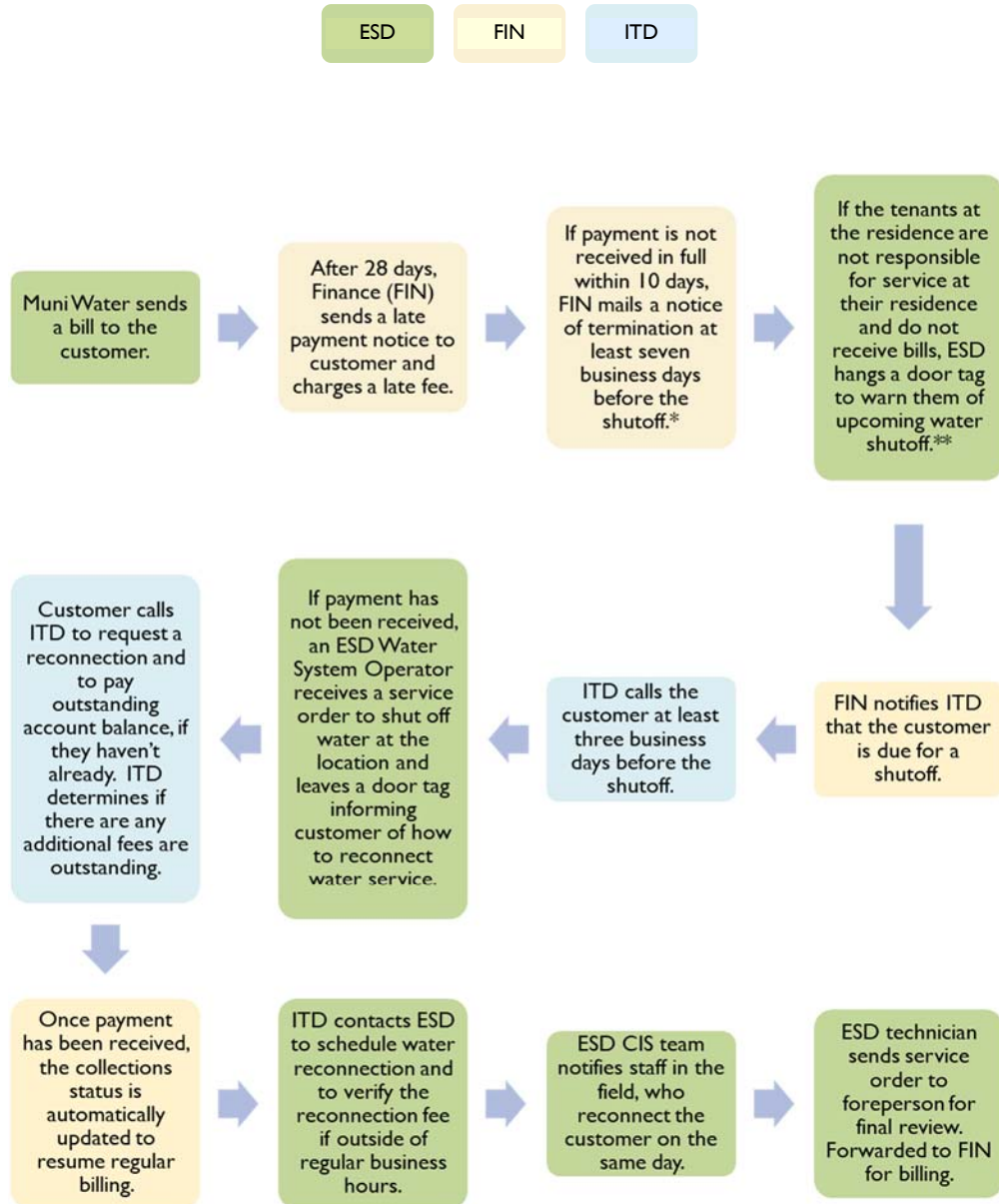
Method	Purpose
Bills (mailed)	Inform customers of water service charges and deadline for payment.
Notices (mailed or door hanger)	Notify customers of late fee charges or an impending water shutoff for nonpayment.
Phone call	Notify customers of a potential water shutoff for nonpayment.
Customer Contact Center	Customers can call the Customer Contact Center at (408) 535-3500 and speak to a customer service representative.
Leak notification (call, letter, or email)	Notify customers of a potential leak (email only if customer has a registered email address on file)
Website	Inform customers of helpful information related to their water service, including billing and payments, customer service number, and policies.
Social media, newspaper ads, posters, etc.	Increase customer awareness of drought and encourage water conservation.
Other mailed materials	Inform customers offline about rate changes and encourage water conservation.
In-person appointments	Customers can make in-person appointments through the website to meet with staff at City Hall.

Source: Auditor summary based on auditor observations and department documents.

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APPENDIX E

Shutoff and Reconnection Process



Source: Auditor summary based on staff interviews and department documents.

*The City can shut off water once a bill becomes delinquent for more than 60 days.

**If the account holder is the property owner, upon receipt of a Notice of Termination, a tenant may establish an account in their name to avoid water shutoff. The tenant is not required to pay the property owner's delinquency, but must meet all other City requirements to establish service in their own name.

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Memorandum

TO: JOE ROIS
CITY AUDITOR

FROM: Kerrie Romanow
Julia H. Cooper
Rob Lloyd

SUBJECT: SEE BELOW

DATE: October 21, 2021

Approved

Leland Wilcox

Leland Wilcox (Oct 21, 2021 19:21 PDT)

Date

Oct 21, 2021

SUBJECT: RESPONSE TO AUDIT OF “MUNICIPAL WATER BILLING AND CUSTOMER SERVICE: THE CITY CAN TAKE STEPS TO ENHANCE CUSTOMER SERVICE DURING AN UNPRECEDENTED TIME”

BACKGROUND

The Administration has reviewed the City Auditor’s Office report “Municipal Water Billing and Customer Service” and agrees with the thirteen (13) recommendations identified in the report. This memorandum details the Administration’s response to each recommendation under the City Auditor’s four (4) findings, along with a discussion of the work planned to fully implement the recommendations and the expected timeframes for completion.

The Environmental Services Department, Finance Department, Information Technology Department, and the City Manager’s Budget Office greatly appreciate the work of the City Auditor and his team for this report. The Administration looks forward to improving the City’s effectiveness through implementing the recommendations.

RECOMMENDATIONS AND RESPONSE

Finding 1: The Billing Process Ensures Accurate Billing Statements to Customers

No Recommendations.

Finding 2: Muni Water Can Take Additional Steps to Notify Customers of Leaks

Recommendation #1: To improve the City's leak notification process, the Environmental Services Department and the Information Technology Department should, in coordination with the City Attorney's Office and in accordance with the City's Digital Privacy Policy:

- a) **Develop a process to collect the email addresses and mobile phone numbers of existing customers, and**
- b) **Enroll customers to receive automated leak notices via text, voice message, mail, and/or email through WaterSmart or another mechanism as appropriate, while providing customers the option of opting-out from receiving such notices.**

Administration Response: The Administration agrees with this recommendation.

Yellow: Customer accounts generally do not contain the necessary email and/or mobile telephone numbers for the recommended service type. However, mailing addresses are known. A campaign would need to be conducted to prompt customers to provide the advanced contact information, along with the implementation of a notification service. The speed of notification would depend on the timing of meter data ingest and analysis.

As part of its COVID-19 Pandemic response, the City has made significant progress in automating processes and approvals that were previously paper-driven. The City's Business Process Automation team may be able to assist with the automated collection of contact information like email addresses and mobile phone numbers of existing customers, change process to gather the information when new accounts are set up, as well as to allow customers to opt-out of providing this type of information and/or receiving alerts. Integrating alerts with the City Utility Billing system (CIS) requires computer programming and additional funds to add necessary modification and features to the CIS application.

The Environmental Services Department, Information Technology Department, and City Attorney's Office will work together to assess options, run customer campaigns, design a technical solution to collect email addresses and phone numbers for customers, and enroll customers to receive automated leak notices via text, voice message, mail, etc. Implementation may be contingent on identification of funding to make necessary modifications to the existing CIS application.

Target Date for Completion: September 2022

Recommendation #2: The Environmental Services Department should coordinate with the Information Technology Department, to create an online form or a category in SJ 311 to notify the City of water leaks and the severity of the water leak.

Administration Response: The Administration agrees with this recommendation.

Green: The Environmental Services Department and Information Technology Department will work together to create an online form or category in SJ 311 allowing notification to the City of water leaks and water leak severity. 2021 investments into the platform support this work and costs should be modest. Based on existing priorities coordinated with departments and the Smart Cities and Services Improvements Committee, the Information Technology Department estimates that it can create this functionality by the end of the current fiscal year.

Target Date for Completion: June 2022

Recommendation #3: To help manage meter investigation service orders, the Environmental Services Department should:

- a) **Develop a process for periodically assessing pre-exception parameters using data around past results and staff insight, and**
- b) **Adjust pre-exception parameters to better identify potential water leaks.**

Administration Response: The Administration agrees with this recommendation.

Green: Staff agrees with this recommendation and will determine a schedule and process for periodically reviewing CIS parameters, and whether these can be adjusted to better identify potential water leaks.

Target Date for Completion: June 2022

Recommendation #4: To streamline the service order process, the Environmental Services Department, in coordination with the Information Technology Department, should update the process to enable staff to coordinate service orders electronically.

Administration Response: The Administration agrees with this recommendation.

Yellow: While the City has made significant progress in automating processes and approvals that were previously paper-driven, automating processes to enable staff to coordinate services electronically requires heavy integration with CIS and extensive process re-engineering. In addition, resources will be required to modify CIS, as is a sizeable effort in terms of City technical, functional, and potentially vendor resources.

The Environmental Services Department and Information Technology Department will complete an analysis of the options and costs for this solution. Staff sees a potential solution as technically feasible, pending design, procurement, funding, and staffing availability. Delivery of the solution will depend on funding and resource availability if a proposed project is authorized.

Target Date for Completion: December 2022

Recommendation #5: To better assess performance, the Environmental Services Department should revise the performance measure methodology for “% of customer service requests handled within 24 hours” to use operational data instead of customer survey data.

Administration Response: The Administration agrees with this recommendation.

Yellow: This recommendation could be implemented upon completion of Recommendation #4, as the operational data collected through an electronic work order process could be utilized for future performance measure reporting. Other solutions separate from an electronic work order solution may be somewhat complex due to the current architecture of the CIS system, and may require additional funds to add necessary features to the CIS application by the vendor.

Target Date for Completion: December 2023

Finding 3: Muni Water Can Enhance Customer Service by Making Information More Accessible

Recommendation #6: The Environmental Services Department, the Finance Department, and the Information Technology Department should coordinate to centralize and compile key website content on the Muni Water website for customers, potentially including:

- Payment and account adjustments
- Late fee charge and waiver policies
- How to report water leaks
- Information required to start and stop service
- Overview of water shutoffs and reconnections policies and timeline, as well as water shutoff data as required by the Water Shutoff Protection Act (SB 998)
- Other important information the departments deem necessary

Administration Response: The Administration agrees with this recommendation.

Green: Environmental Services, Finance, and CMO Communications will work together to align on support and messaging to our customers. Further improvements and a customer-centric mindset will be applied to better coordinate and centralize key website content on the Municipal Water website. The Water Service Policies and Procedures on the Muni Water Website and include content for some of the items included in this recommendation. The Policies and Procedures are available in English, Spanish, Vietnamese, Tagalog, Chinese, and Korean. (<https://www.sanjoseca.gov/your-government/environment/water-utilities/drinking-water>)

Target Date for Completion: June 2022



Recommendation #7: The Finance Department and the Environmental Services Department should increase access to Municipal Water-related materials through:

- a) Identifying materials that could benefit from translation into commonly spoken languages in San José and making the translations available (e.g., late payment notices, the Low Income and Vulnerable Designations application form, and/or online customer platforms such as E-Bill Express).
- b) Providing translated notes in commonly spoken languages on materials such as forms and bills, sent to customers with instructions on how to obtain translated versions or information.

Administration Response: The Administration agrees with this recommendation.

Green: The Finance Department and the Environmental Services Department will collaborate to identify and translate, and provide instructions on how to obtain translation information, for Municipal Water-related materials. This will include notices, forms, bills, and other materials that may be identified. Translations will be made available in Spanish, Vietnamese, Tagalog, Chinese, and Korean.

Target Date for Completion: June 2022

Recommendation #8: To address the needs of low-income and medically vulnerable customers, the Environmental Services Department, the Finance Department, and the Information Technology Department should:

- a) Create an electronic form to register eligible customers and provide alternative ways to submit this form (i.e., virtually, through mail, or in person).
- b) Document the qualification requirements, including income thresholds, on the application form.

Administration Response: The Administration agrees with this recommendation.

Green: As part of its COVID-19 Pandemic response, the City made significant progress in automating processes and approvals that were previously paper-driven. Processes can be automated through the City's Business Process Automation team. The Environmental Services Department and Information Technology Department, and Finance Department will work together to assess options and create an electronic form and alternative methods to register eligible low-income or medically vulnerable customers and align those registration methods with clear communication/documentation of qualification requirements including income thresholds on the application form.

Target Date for Completion: June 2022

Recommendation #9: To improve accessibility for customers to view and pay their bills, the Finance Department should work with the Information Technology Department, to:
a) Enable Muni Water customers to view detailed statements online, and
b) Provide customers the option to receive electronic statements.

Administration Response: The Administration agrees with this recommendation.

Yellow: While the Administration agrees with this recommendation, functionality related to viewing bills, paying bills, and receiving electronic statements is highly dependent on the City's billing statement and payment processing vendors. The City is transitioning to a new billing statement vendor and intends to explore online bill presentation and payment options as part of this transition and in connection with the City Banking Services procurement process. Integration with the utility billing system will be required, and staff will work on that scope of this work in advance to the extent possible. Complete plans, designs, and costs will be produced once banking services are set, and a transition to a new banking services provider is complete.

Target Date for Completion: June 2023

Recommendation #10: The Finance Department should update the "How to Read Your Bill" instructions to align with the current payment/rate structure and include explanations for the additional charges line items (i.e., late payment charges, returned check).

Administration Response: The Administration agrees with this recommendation.

Green: The Finance Department, in collaboration with the Environmental Services Department, will revise the "How to Read Your Bill" instructions and will align these with its current payment/rate structure, including explanations for additional charges and line items. The instructions will be translated in Spanish, Vietnamese, Tagalog, Chinese, and Korean.

Target Date for Completion: June 2022

Recommendation #11: To reduce the likelihood of late payments, the Finance Department and the Environmental Services Department should include consistent information on the bill, Muni Water's website, and the City's Pay My Bill webpage informing customers of the consequences of missed/late payments, including noting processing delays.

Administration Response: The Administration agrees with this recommendation.

Green: The Finance Department will collaborate with the Environmental Services Department to create consistent late payment and processing time messaging on the bills, Muni Water website, and the City's My Bill webpage. Customers will be encouraged to pay their bills online

or mail their bill payments in early, to accommodate processing delays and avoid potential consequences for missed/late payments.

Target Date for Completion: June 2022

Recommendation #12: To make Late Payment Notices and Notices of Termination more accessible, the Finance Department and the Environmental Services Department should use plain language on the notices, including the date by which payment or arrangement for payment is required in order to avoid discontinuation of residential service, and provide an overview of the water shutoff timeline.

Administration Response: The Administration agrees with this recommendation.

Green: The Finance Department will collaborate with the Environmental Services Department and the City Attorney's Office to use plain language on its Late Payment Notice and Notice of Termination of Water Service. This simplified language will include the date by which payment or payment arrangement is required, and an overview of the water shutoff timeline.

Target Date for Completion: June 2022

Finding 4: Customers are Facing Financial Burdens Due to the Pandemic

Recommendation #13: To help alleviate the financial burdens of significant outstanding balances owed by Municipal Water customers, the Administration should implement a combination of strategies, including:

- **Automatically enroll customers with overdue balances into payment plans when the moratorium ends,**
- **Conduct outreach to customers about the Low Income and Vulnerable designation service options, potentially leveraging the City's communications outreach and other existing efforts (e.g., San José Clean Energy, CA Rental Relief),**
- **Work with the City's Budget Office to explore potential sources of ongoing funding for customer assistance, including excess late payment charges, and/or**
- **Develop a process to distribute aid from Federal and State funding sources, such as from the Low Income Household Water Assistance Program (LIHWAP), to qualifying households and align the Low Income thresholds as appropriate.**

Administration Response: The Administration generally agrees with this recommendation.

Yellow: The Finance Department will collaborate with the Environmental Services Department, City Attorney's Office, and the City Manager's Budget Office to evaluate the recommended

customer outreach and financial assistance strategies for financially burdened Municipal Water customers. Exploration of potential sources of ongoing funding for customer assistance along with any recommendations for implementation will be considered during the development of the 2022-2023 Proposed Budget development process.

Target Date for Completion: December 2022

CONCLUSION

The Administration thanks the City Auditor's Office for the comprehensive audit of the Municipal Water System's customer service and billing. The report is focused, and the recommendations are fair and practical. We want to recognize the City Attorney's Office and the City Manager's Budget Office for their participation in the audit process, and collaboration and coordination in developing the Administration's response to the Audit. We appreciate the City Auditor Office's hard work and professionalism in conducting this audit and will work diligently to implement the recommended improvements.

Again, the Administration thanks the City Auditor's Office for this important report and looks forward to implementing the recommendations.

/s/ Napp Fukuda for
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/s/
JULIA H. COOPER
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/s/
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