

Smart Water Meters

Open House Webinar September 17, 2020

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Agenda

- Overview of AMI
- Benefits of AMI
- AMI Pilot
- Next Steps
- Q&A



What is AMI?

- Advanced Metering Infrastructure (AMI) or "Smart Meters"
- Technology that allows meters to be read remotely
- Hourly water usage data can be collected and sent over a secure wireless communications network



AMI Meter Box Components







Tools for meter change

AMI programming



Installation through meter pit lid



Pit lid with AMI radio

AMI vs. Manual Reading

Manual reading: One read every two months



110 W. Taylor St. San Jose, CA 95110-2131 (408) 279-7900 Office Hours: 8:00AM-5:30PM Mon.-Fri. www.sjwater.com

BILLING INFORMATION

	Service Address:	Service Charge	
	Billing Period: 01/07/2019 - 03/06/2019	Quantity Charges	
	Rate Code / Service Size: RES_T_B 3/4 Inch	6.00000 X\$3.195	
	Meter Reading	1.00000 X\$4.797	
	Previous Current Total CCF (748 Gal/CCF)	Safe Drinking Wtr Ln 2006-B	
	2003 2010 7	Safe Drinking Wtr Ln 2008-B	
		Rate Assist Prog Surcharge-B	
		2019 Balancing Account Surch	
		2019 Memorandum Account Si	
		PUC Surcharge 1.4%	
	INFORMATION & ANNOUNCEMENTS	City Utility Users Tax 5%	
		Service Charge Proration Refu	
0	Complimentary San Jose Giants tickets are now availab San Jose Water's May 17 Water Awareness Night with t	le for Current Charges	
0	Siants. Visit our website for details	Previous Balance	
	www.sjwater.com/media/1=00/	Payments Received 01/16/2019	
ר כ	This bill reflects a one-time refund for prior service charge rate changes. For more information, please visit	Total Due	

This cha www.sjwater.com

CONSUMPTION HISTORY

	Units (CCF)	Gallons	Days	Gal/Day
Current	7	5236	58	90
Last Year	15	11220	60	187

Customer Name Account Number: 03/12/2019 Bill Date: Amount Due: \$110.86 Payment Due By: 04/02/2019

Service Charge	\$79.00
Quantity Charges	
6.00000 X\$3.1951	19.17
1.00000 X\$4.7975	* 4.79
Safe Drinking Wtr Ln 2006-B	0.08
Safe Drinking Wtr Ln 2008-B	0.04
Rate Assist Prog Surcharge-B	2.90
2019 Balancing Account Surcharge	2.07
2019 Memorandum Account Surcharge	2.05
PUC Surcharge 1.4%	1.54
City Utility Users Tax 5%	5.58
Service Charge Proration Refund	6.36 CR
Current Charges	110.86
Previous Balance	128.27
Payments Received 01/16/2019	128.27 CR

CURRENT CHARGES

\$110.86

AMI: Hourly reads on a daily basis



- Customers can track their own usage on an hourly, daily or monthly basis
- Data is accessible through an online portal or smartphone app



Provide customers with the tools to be water efficient and manage their water bills



06:00 07:00 08:00 09:00

3:00 4:00 5:00



• Customers can receive leak alerts via text or email

.1:00

3:00

.4:00

• SJW will actively monitor your account and notify you of leaks

.6:00 .7:00 8:00

9:00

00:00

1:00

Possible leak

 Reduce high water bills and protect your home from water damage

Leak Detection with AMI

Success Story

- Owner of 165-unit senior mobile home park disputes large water bill
- Owner denies usage, claiming meters or meter reads are faulty
- AMI meter is installed and detects continuous usage of 2,400 gallons per hour



Huge leak under concrete patio never surfaced



Numerous toilet leaks in mobile homes



One resident left tub running so her eight cats could drink whenever they wished – estimated loss at 500-700 gallons per day



Provide customers with the tools to be water efficient and manage their water bills



Provide faster detection and notification of potential water leaks

Improve customer service and high bill troubleshooting with detailed water use data







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Reduce vehicle miles driven for meter reading and lower greenhouse gas emissions







SJW Service Area

- Service to approx. 1 million people (~230,000 active metered services)
- 135 square miles





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Improve drought preparedness and meet conservation mandates

Water Conservation with AMI

- In 2018, California passed Senate Bill 606 and Assembly Bill 1668
- Requires water suppliers to set and meet annual water use objectives







AMI Pilot

- AMI installed at 800 homes in San Jose's Willow Glen neighborhood
- Objectives:
 - Evaluate AMI technology and benefits
 - Collect customer feedback
 - Prepare for system-wide AMI deployment



Piloted AMI Meters



Badger M25 PD meter with HR | E LCD Register





Neptune Meter with E-Coder Register and Sensus Endpoint

AMI Pilot – A Success!

Successful Delivery of Hourly Water Use Data





AMI Pilot – A Success!

Quicker Detection of Leaks

- Stuck toilet flapper while customer was away on a 7-day vacation
- 35,400 gallons of water and \$137 saved





Increased Water Conservation

• Customers in the AMI pilot used ~7% less water than those in the control group during the first 6 months after the pilot began

Leak Size Profile

• Leaks were common among households, with ~20% of households having a leak of any size on any given day





Distribution of leaks by largest leak size for each household during baseline period

Large leaks > 10 gph were rare but contributed to half of the water lost



Distribution of total gallons leaked by leak size during baseline period

Leak Duration Profile

- Pilot resulted in 38% reduction in leak duration (for leaks > 0.5 gph)
- Greatest reductions occurred in households that registered for the consumption portal



pilot program by leak size

AMI Pilot – Customer Feedback

Very happy with this service.



Next Steps for AMI

- In Dec 2019, SJW filed an application for AMI with the California Public Utilities Commission (CPUC)
- Plan is to complete system-wide AMI deployment by 2025 (beginning in 2021), in time for SB 606 and AB 1688 conservation mandates, pending CPUC approval
- Decision from CPUC expected within 6 months





Stay informed about AMI! https://www.sjwater.com/AMI



