ADVANCED METERING INFRASTRUCTURE (AMI)

COMMUNITY INFORMATIONAL MEETING

MARCH 21, 2023

BY: DAN HERRERA, P.E.

LUCAS PEREIRA

Agenda

- What is AMI?

- Eye on Water (Customer Online Portal)
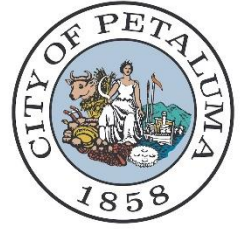
- When is it happening?

- Q&A

What is AMI?

What is AMI?

A new kind of water meter technology designed to:

- Collect information remotely and in near real time

- Detect leaks early for quicker repairs

- Empower our community to:
  - Understand, manage, and optimize water usage
  - Increase water conservation

Water Meter Components

Register/Encoder:
records the water usage

Endpoint:
transmits
the water
usage data

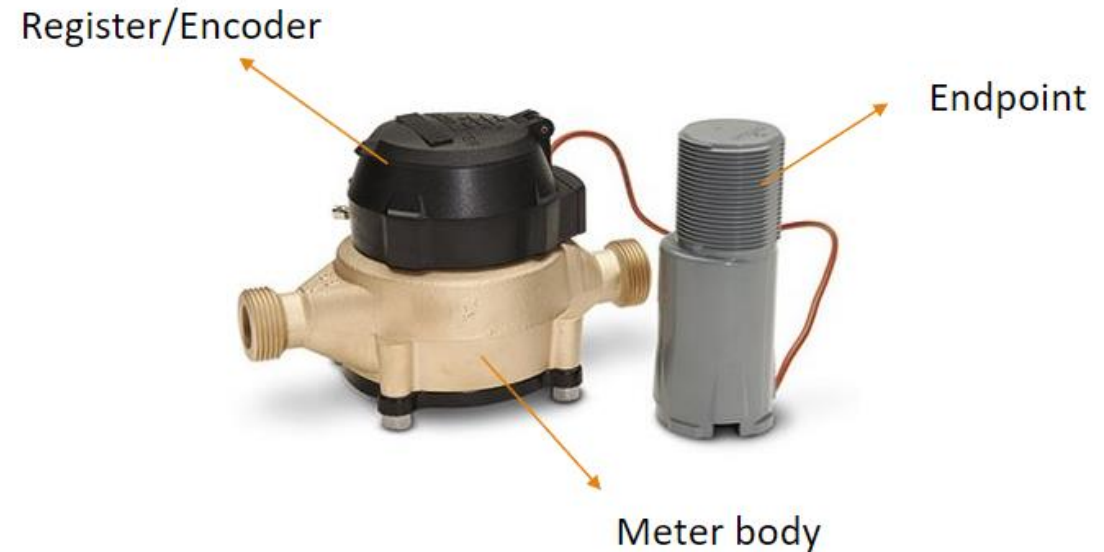Meter body: measures
water usage

Water meter inside
water meter box

AMI Upgrade

- The upgrade to AMI consists of replacing two meter components:
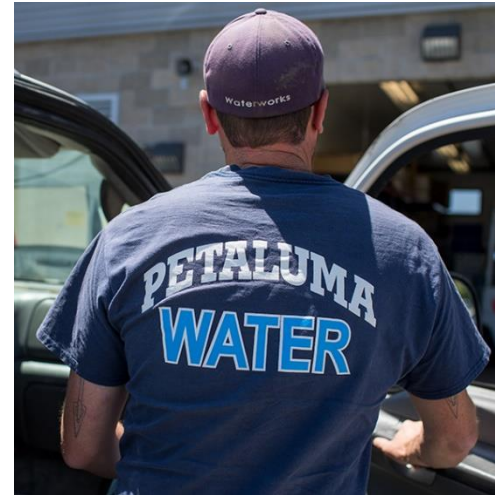 - Endpoint
  - Register/encoder (as needed)

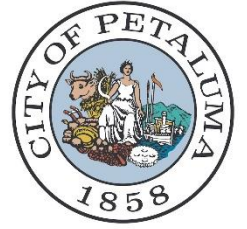Register/Encoder

Endpoint

Meter body

Why AMI?

Online Quick Access to Water Usage Information

$+$

Early Leak Detection

$+$

Operational Efficiencies

$=$

Water Conservation Opportunities

Why AMI?

- AMI is one action we are taking today to save water for tomorrow

- Together, we can achieve greater water conservation and improve water supply reliability for our City

Why AMI?

- Current water meter components are at the end of their life and due for replacement

- AMR (current technology) is outdated and parts are hard to procure

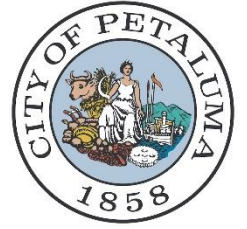- AMI is the next step in water meter technology
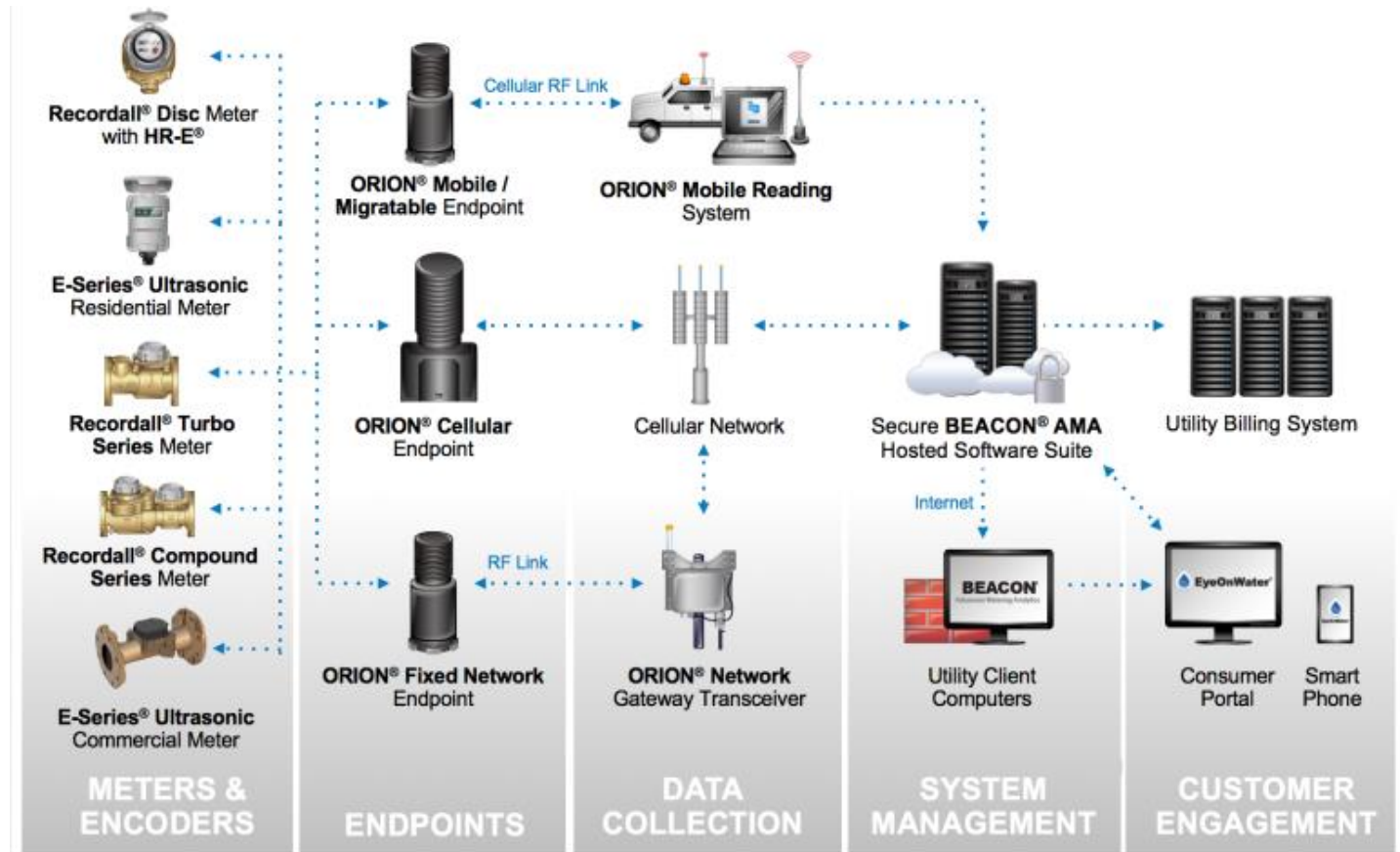
AMR vs AMI

- **AMR (Automated Meter Reading):** Current technology

  ◦ Requires monthly drive-by

  ◦ Limited and infrequent water usage data

  ◦ Limited access to water data for customers

- **AMI (Advanced Metering Infrastructure):** New technology

  ◦ Water use data sent automatically – no drive-by required

  ◦ Water consumption available in 15-minute intervals uploaded 4x/day.

  ◦ Online and quick access for City and customers
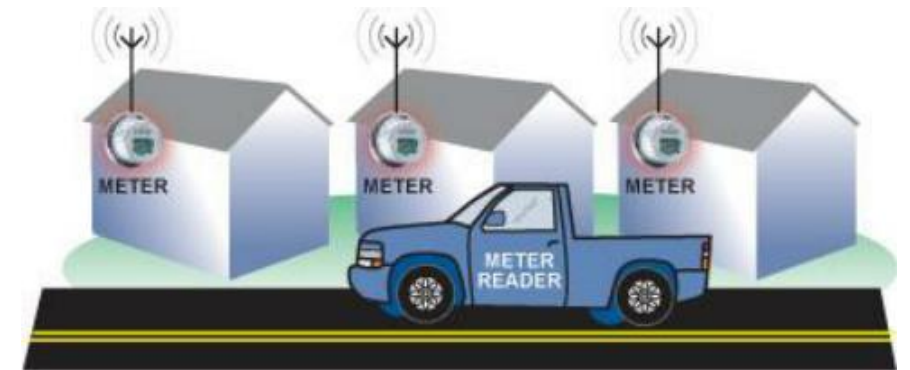
AMR
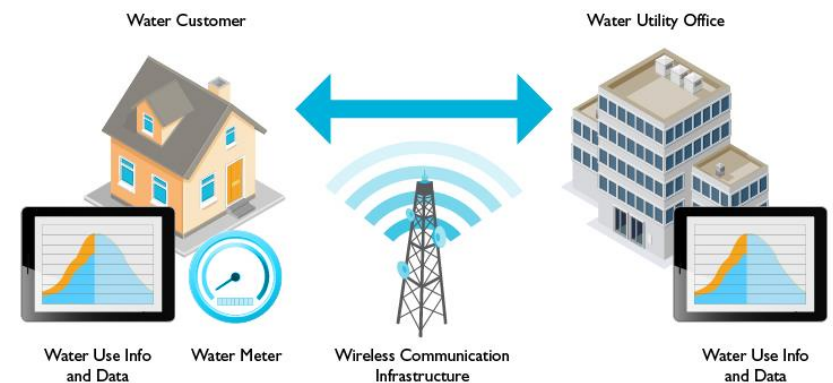
AMI

How will AMI benefit you?

- Access to near real-time water usage information – Eye on Water (online portal)

- Leak detection
  - Prevents surprise water bills
  - Enhances water conservation
- Less vehicles on the road – reducing greenhouse gas emissions

Who else uses AMI?

- City of Santa Rosa – 2017

- Valley of the Moon Water District (Sonoma) - 2015

- North Marin Water District - 2018

- Alameda County Water District – 2021

- City of Sacramento - 2017

- City of Santa Barbara - 2014

- And many others across the state and nationwide

Eye on Water
(online portal)

Eye on Water

- **Direct Water Consumption Data**

  ◦ Allows customers to easily view, understand and manage their water usage.

- **Improved Customer Service**

  ◦ Quicker and easy access to information for City staff and customers.

- **Promotes Water Conservation**

 ◦ Creates opportunities for changing behavior related to water conservation.
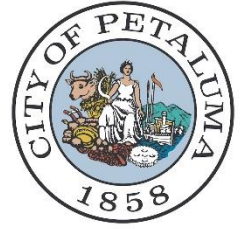
Eye on Water

- **Features:**
  - Web-based consumer portal, plus Android and iOS mobile app
  - Configurable leak alerts by email or SMS text
  - Secure, cloud-based platform
  - Hourly, daily, monthly, and yearly data and charts
  - Temperature and precipitation overlays
  - Week-over-week consumption comparisons

When is it happening?
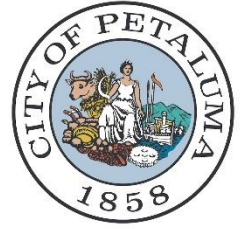
When is it happening?

- Pilot program started in January 2022
  - 58 City and City staff meters have been converted to AMI
  - Positive feedback from residential and commercial customers

When is it happening?
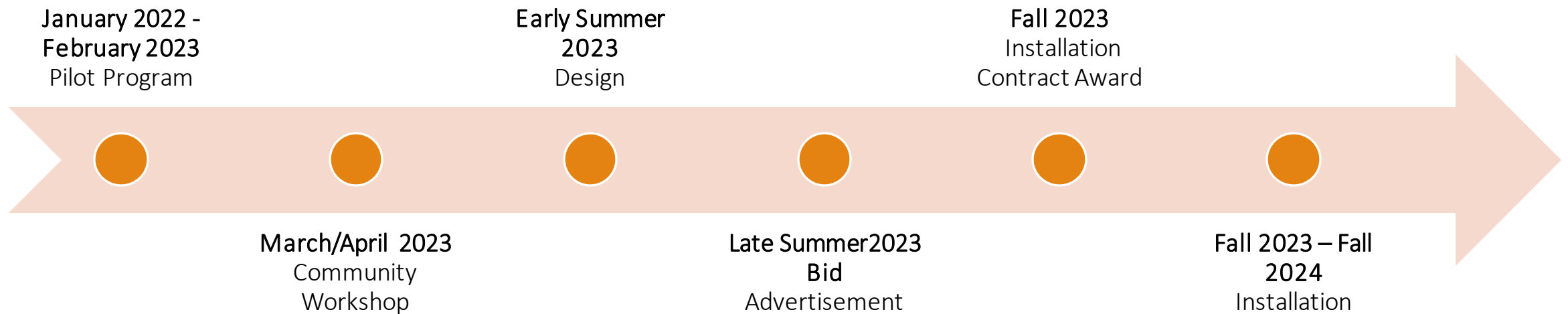

- City-wide AMI roll out to begin later in 2023

  ◦ There will be an opt out option. Sign up to receive more info at: cityofpetaluma.org/ami

- Some failing AMR registers were replaced with AMI registers (paused replacement for now)

When is it happening?

January 2022 - February 2023
Pilot Program

March/April 2023
Community Workshop

Early Summer 2023
Design

Late Summer 2023
Bid Advertisement

Fall 2023
Installation Contract Award

Fall 2023 – Fall 2024
Installation

How will you know?

- **MAIL/EMAIL:**
  - Letter a few weeks in advance of your upgrade

- **DOOR HANGER:**
  - The day your register is upgraded with instructions on how to sign up for "Eye on Water" to start monitoring your water usage.

- **CITY WEBSITE:**
  - The City of Petaluma will have project updates available on the project website: cityofpetaluma.org/ami

How will the installation impact you?

- Water meters are typically located on sidewalk, driveway, or front yard

- Only access required for upgrade is to water meter box

Installing and Setting Up a New Cellular Water Meter

How will the installation impact you?

- **Temporary Water Shut-Off**

  ◦ **Residential** water customers will most likely NOT require to have their water shut off. If required, service interruptions typically last 30-minutes

  ◦ **Commercial, Industrial, and Agricultural** customers may have their water shut off temporarily for approximately 1-hour. Service interruptions will be coordinated with property owners to minimize impacts

- **Clear/Unobstructed Access**

  ◦ Please trim overgrown landscaping and remove objects that are blocking access to the water meter box

In conclusion…

AMI

✓ Empowers customers to monitor their water usage in real-time

✓ Collects data more efficiently

✓ Helps detect leaks early and easily

✓ Allows for water conservation and potential savings through water use management

AMI DOES NOT

✗ Change how you are billed for water usage

✗ Require drive-by data collection – data is collected remotely

✗ Transmit or monitor any personal customer information

Questions & Answers