

*Serving our customers*

# Advanced Metering Program

Sally Mohr, Program Delivery Manager

Corey Bedient, Water Workstream Lead

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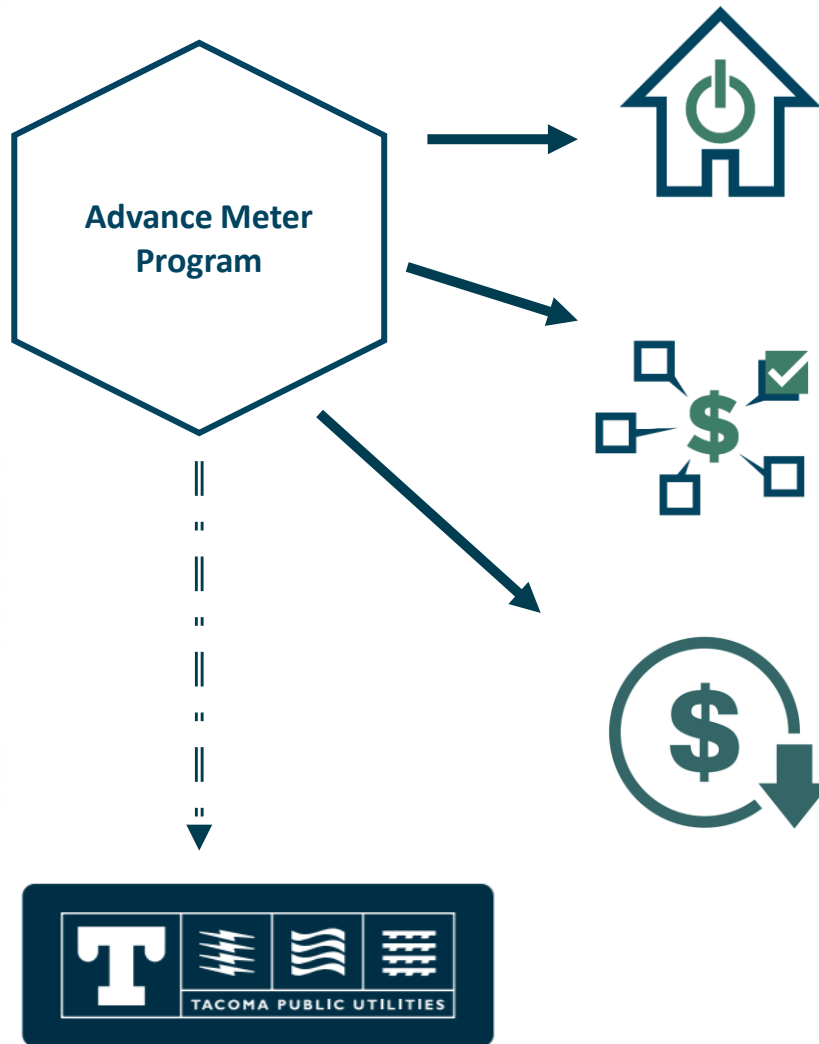


# Agenda

- Program Overview
- Quick Updates
- Deployment Progress
- MIV Lids Request



# Advanced Metering: A Strategic Initiative



Grid Modernization Efforts  
Smart Water Efforts

## Foundational for Utility Modernization

- An **essential building block** of TPU
- A strategic focus for the **past few years**
- Will **modernize TPU services**

## Delivers and Enables Benefits

- Monthly billing
- Automated meter reading
- Customer and TPU access to usage data
- Quicker outage and leak detection
- Data collection and input enabler
- PrePay - residential electric customers

## Low Customer Cost

The cost to individual customers remains relatively low, and is **spread over ten years**. Costs are already **factored into current rates**.

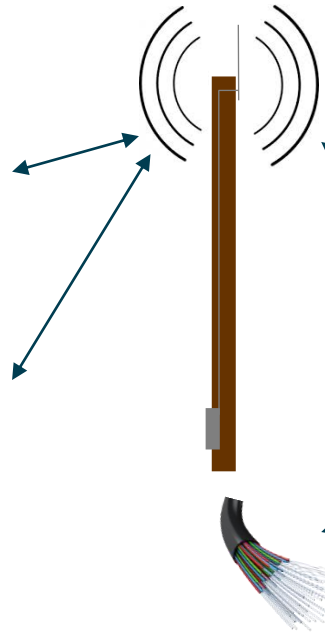
Beginning in 2019, the additional cost increase each year for the next ten years is about \$2.28/year for the average City of Tacoma residential power and water customer.

# What is AMI?

## Power & Water Meters



## Communications Network



## Utility Data Management Systems



# Milestones and Highlights



\$2 million in Federal Grant  
Funding Awarded to TPU



53,959 Customers  
Converted to Monthly  
Billing



7,361 leaks identified  
and notifications sent to  
customers



**49.7%**

All Meters (P&W)  
Installations Complete  
≈145K of 293K Installed



12,900 +  
Remote Power  
Reconnects

13 Remote  
Disconnects  
for Fire Events  
(2023)



**88.9%**

Phase I & Phase III Radio  
Base Stations Installed

# Macro Environment Disruptions

## 1. COVID-19 Pandemic

## 2. Meter Supply Chain Disruptions

## 3. Staffing Changes



### Program Impacts

- Schedule extension
- Potential cost increase
- Customer communications plan modifications
- Resolution and agreement updates

### Mitigation Strategy

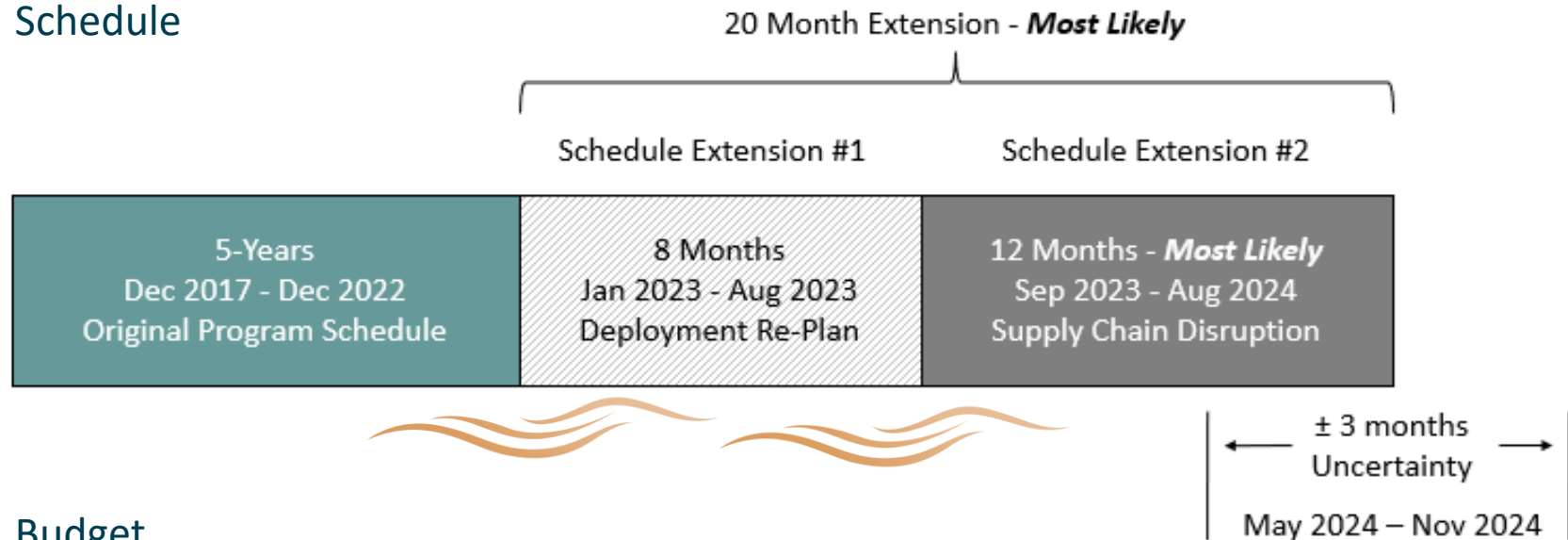
- Agile, optimized meter deployment planning
- Detailed inventory management
- Deliver customer benefits as soon as possible
- Pursue least cost alternatives



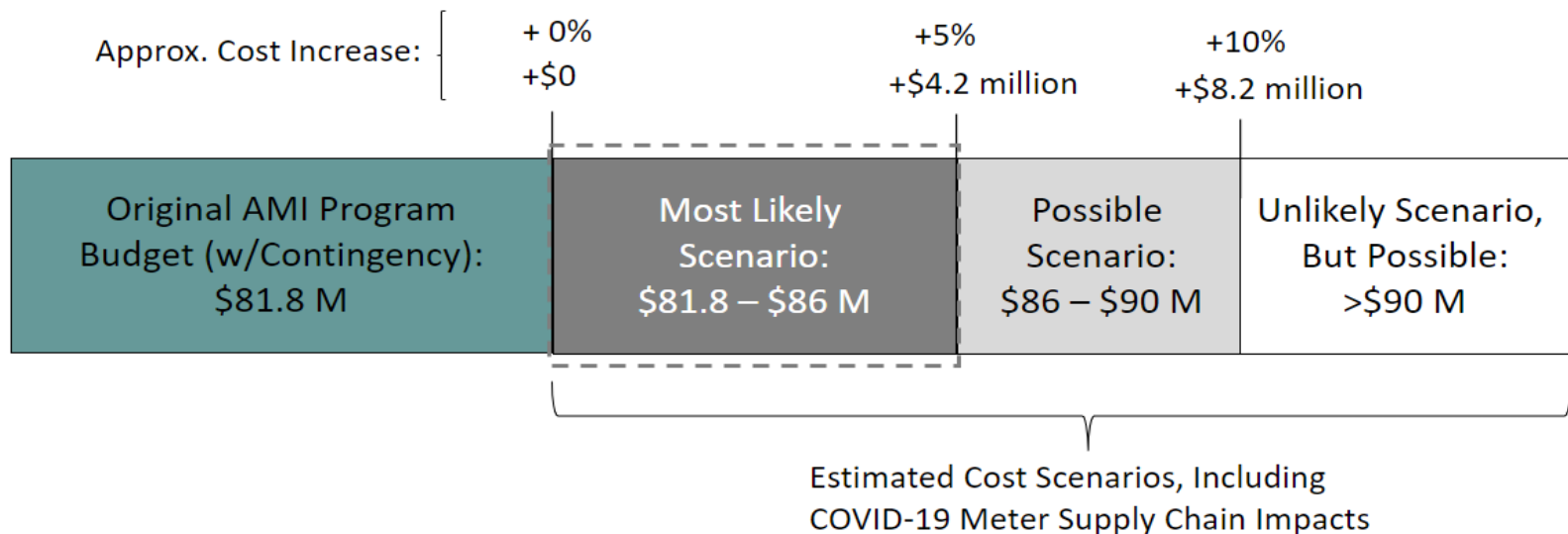
# Program Schedule and Budget - 04/22



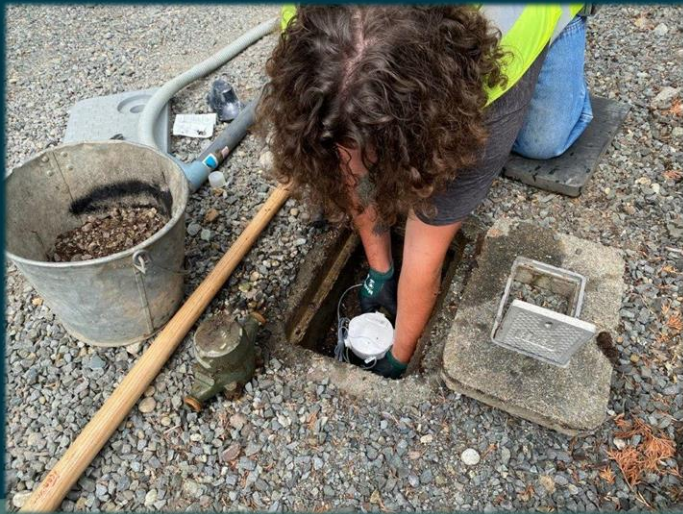
## Schedule



## Budget

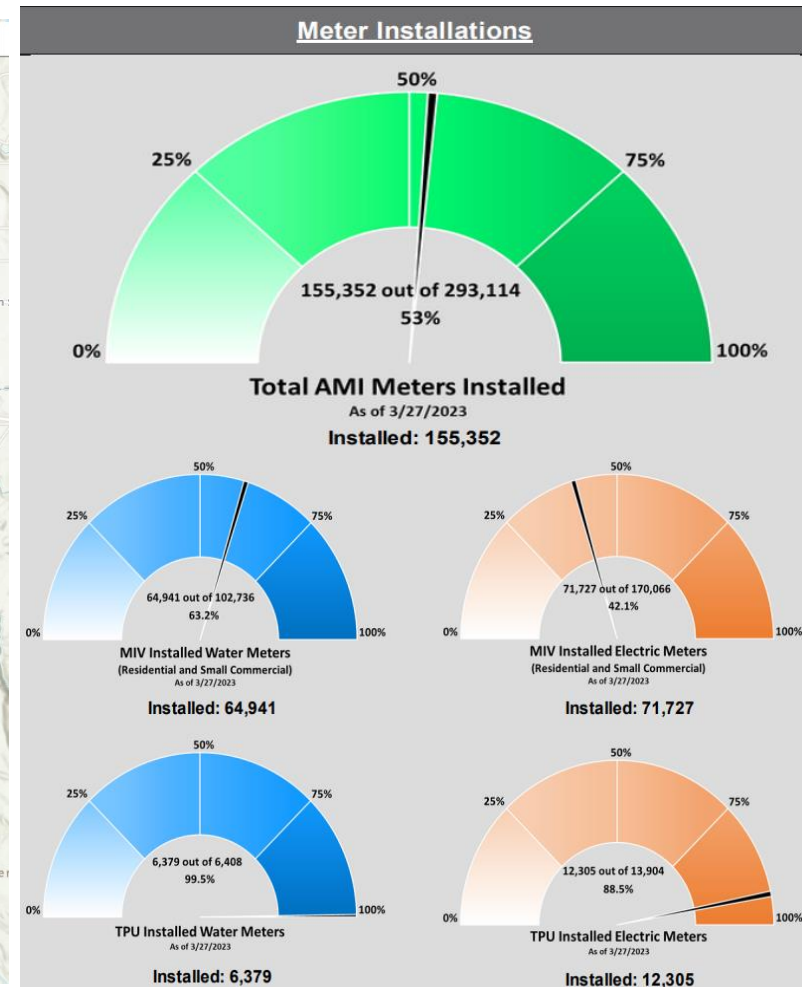
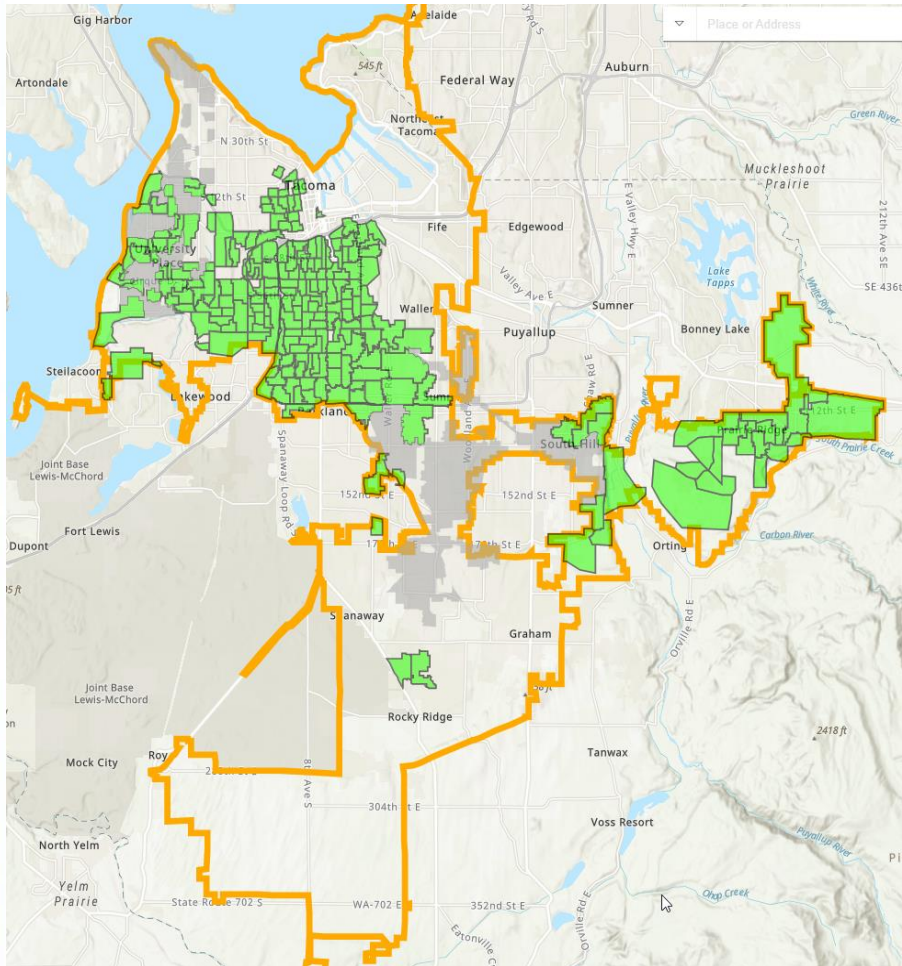


# Deployment Progress

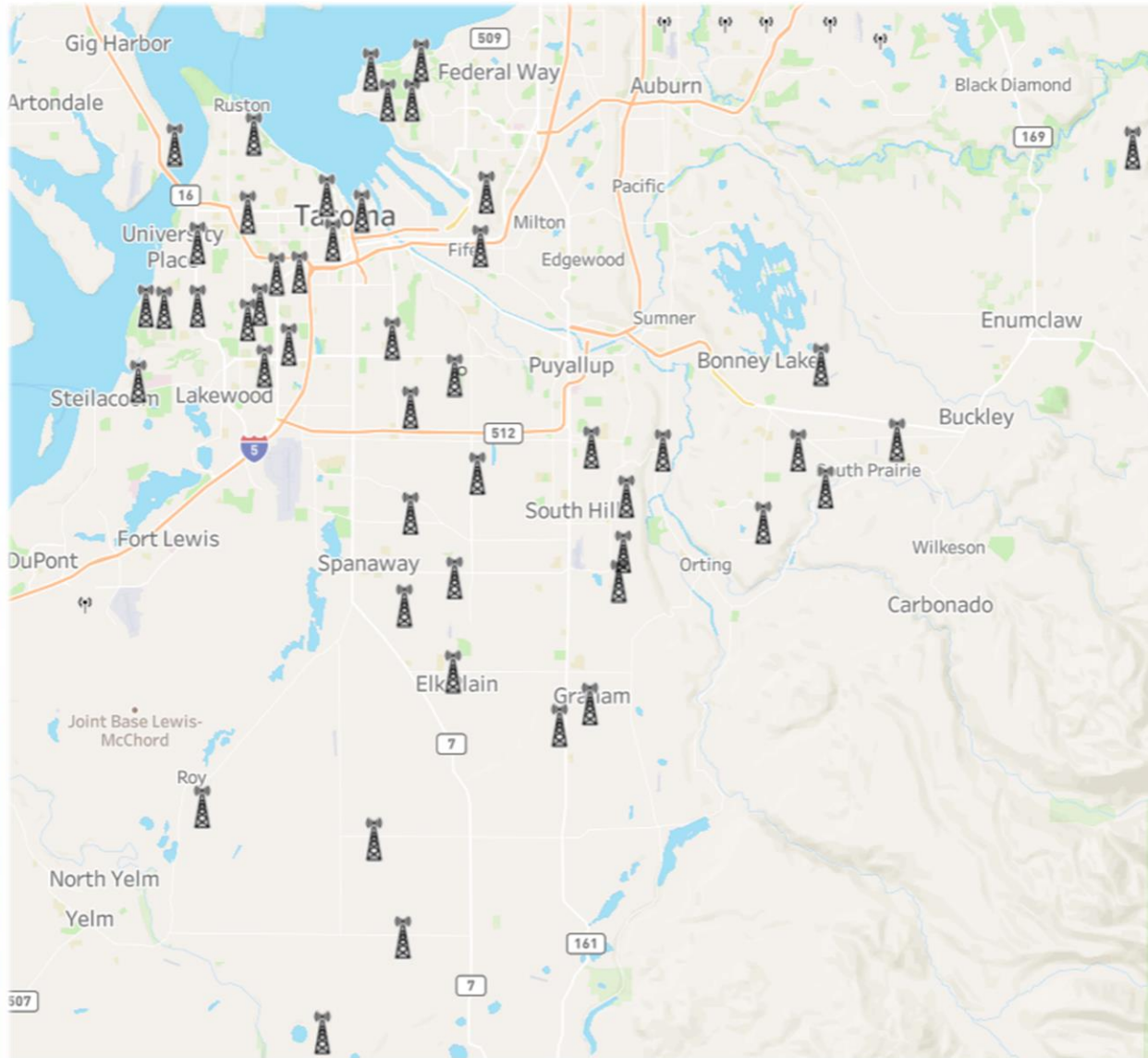




# MIV Meter Deployment Progress



# AMI Network Deployment



## Network Deployment Phases

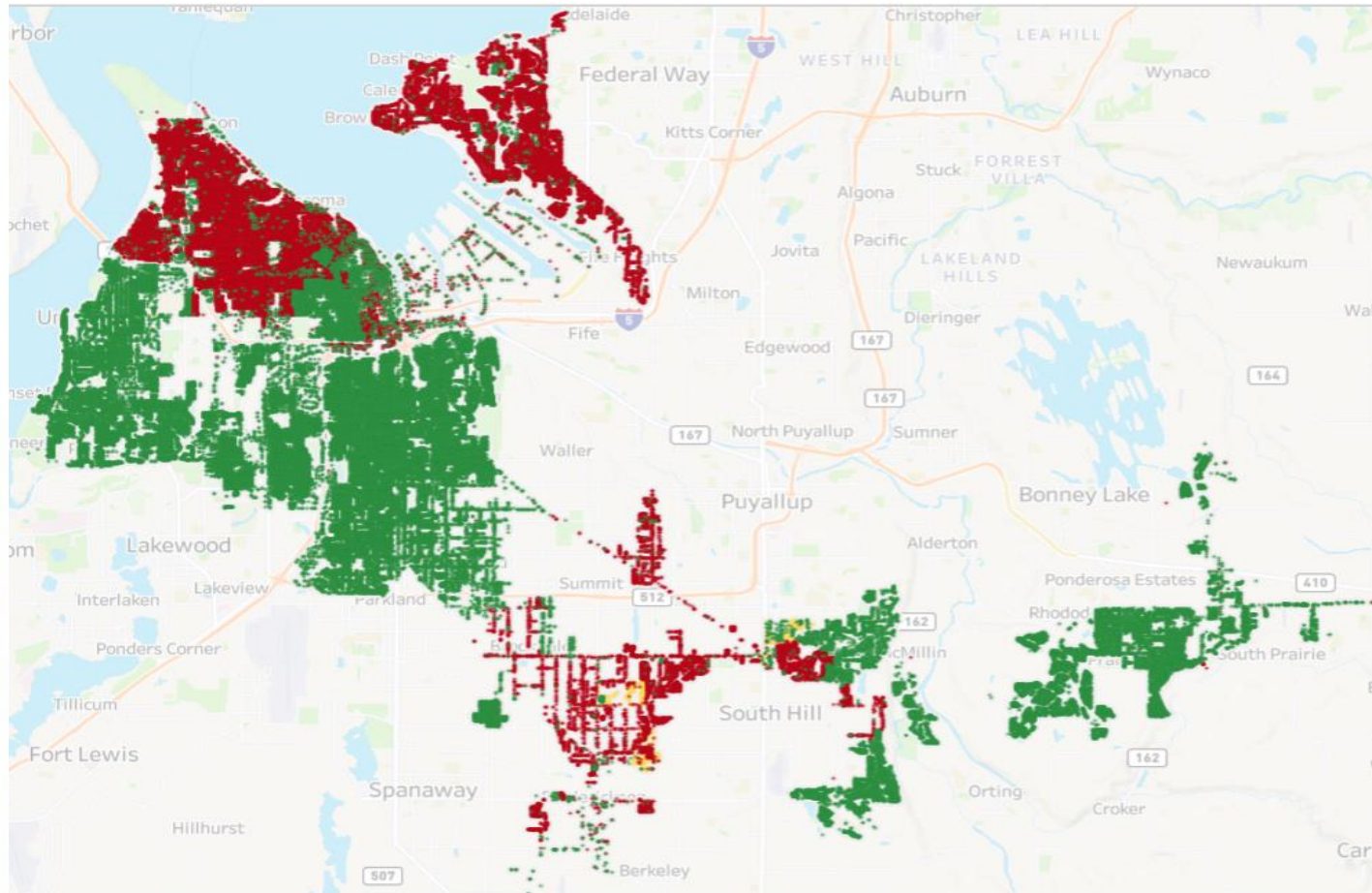
**Phase 1:** General Service Area coverage 2020-2022 (Complete)

**Phase 2:** Fill in to improve performance 2023-Completion

**Phase 3:** Water Pipeline 5 Q4-2022-Q1-2023 (Complete)



# Water AMI Deployment Progress Map



Percent Complete

**64.56%**

Percent Remaining

**35.44%**

Completed Count

**71,173**

Remaining Count

**39,078**

Completed by Size

5/8	63,469
3/4	2,210
1	1,659
1 1/2	1,851
2	1,357
3	299
4	126
6	67

# Water Service Line Grant & Loan Program



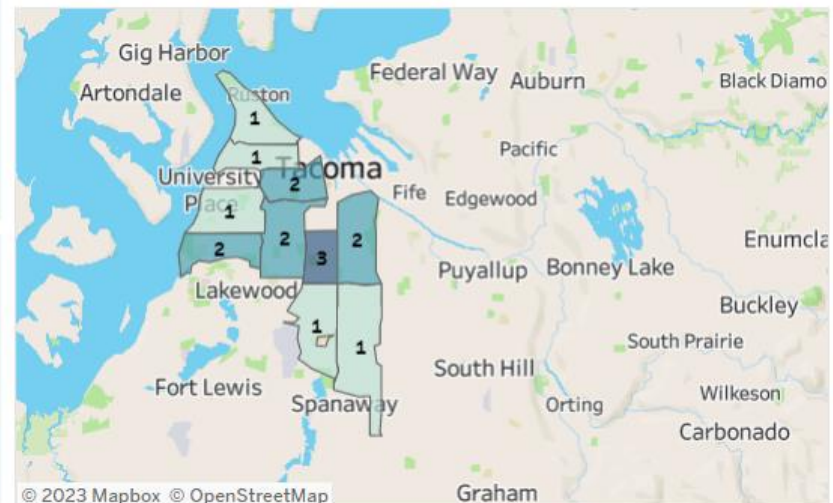
Number of Repairs Funded	Number of Grant Repairs	Average Repair Project Total	Appx. Feet of Main Replaced	Calculated Water Saved (GAL)
16	8	\$6,985	730	21,726,552 <sup>①</sup>

Total Repair Assistance Issued	Total Grant Funds Awarded	Total Deferred Loan Assistance	Total Standard Loan Assistance
\$107,490	\$39,081	\$11,251	\$57,157

New LIE Enrollments	New BCAP Enrollments
4	3

Total LIE Savings to Customers	Total BCAP Savings to Customers
\$2,184	\$1,185

Number of Repairs by Zip Code



# Water Lid Amendment #2 Request

## Request:

**Requested Increase:** \$189k

**Quantity of Lids:** 4,500

**Schedule:** lead times increased from 6-8 to 35-38 weeks

**Budgeted:** Yes

**Impact on AMI project:** neutral/already included in forecast



**Reason for amendment request:** Procurement of final required quantities and material price increase allowed by Tacoma boiler plate contract. The pre-deployment water meter box survey returned ~10% of lid types as unknown/other. The final procurement quantities account for the unknown lid types to complete the project.

**Risk if not approved:** Pause to water AMI deployment near the end of the project, since the AMI lid houses the AMI module. Running out of lids would result in negative schedule and cost impacts to the project.

Water Lid Amendment # 2 Request		AMI Meter Box Lids Budget & Forecast	
Original Contract Value	\$1,988,182	Original AMI Project Lids Budget	\$4.17 M
Amendment # - Total Value	\$2,173,912	Current AMI Project Lids Forecast	\$3.06 M
Amendment #2 – Total Value	<b>\$2,363,649</b>	Total AMI Project Lids Forecast at project completion including Amendment #2	<b>\$2.90 M</b>



## Additional Information

- [MyTPU.org/AdvancedMeters](http://MyTPU.org/AdvancedMeters)
  - Installation Video
  - Deployment Map
  - Program Fact Sheets
  - Program Timeline
  - FAQs - Frequently Asked Questions
  - Public Process
  - Advanced Meter Policies

