DWSRF and Capacity Building in Action: Asset Management

April 28th, 2021

EPA

OFFICE OF GROUND WATER AND DRINKING WATER

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Welcome!

All attendees are in listen-only mode

Please ask questions throughout the presentation using the Q&A feature to be answered at the end of the webinar.

A copy of the slides will be emailed to all registered attendees.

Check out https://www.epa.gov/dwreginfo/drinking-water-training for more drinking water webinars and trainings.

# Attendees can submit Questions and Comments through the Q&A. Questions will be asked and answered at the end of the webinar.
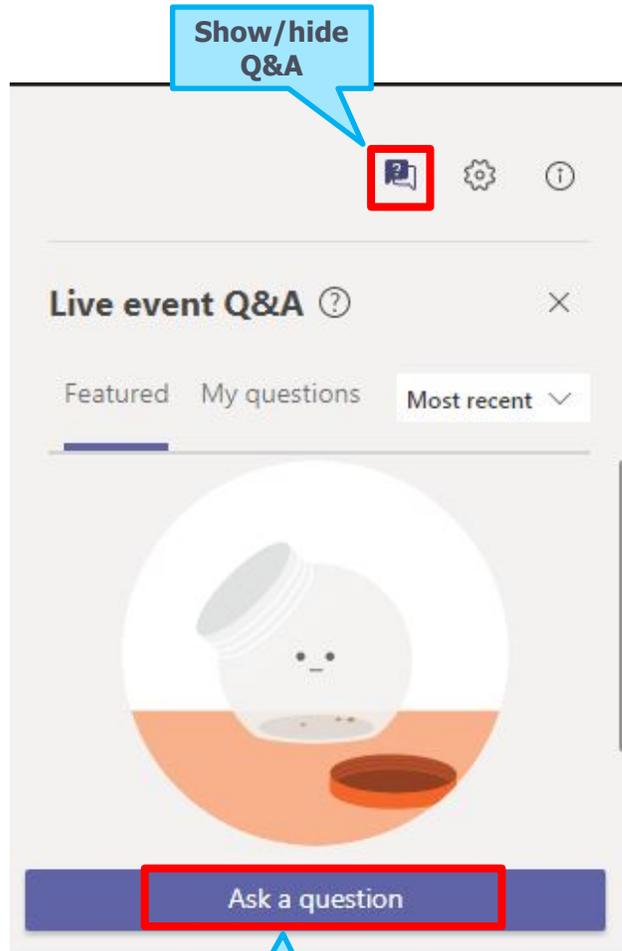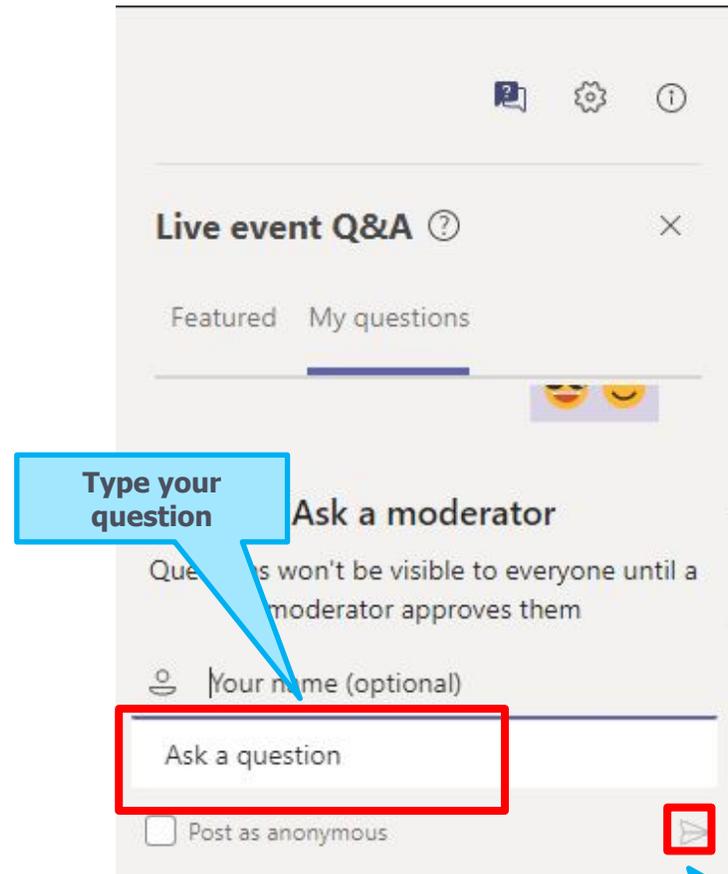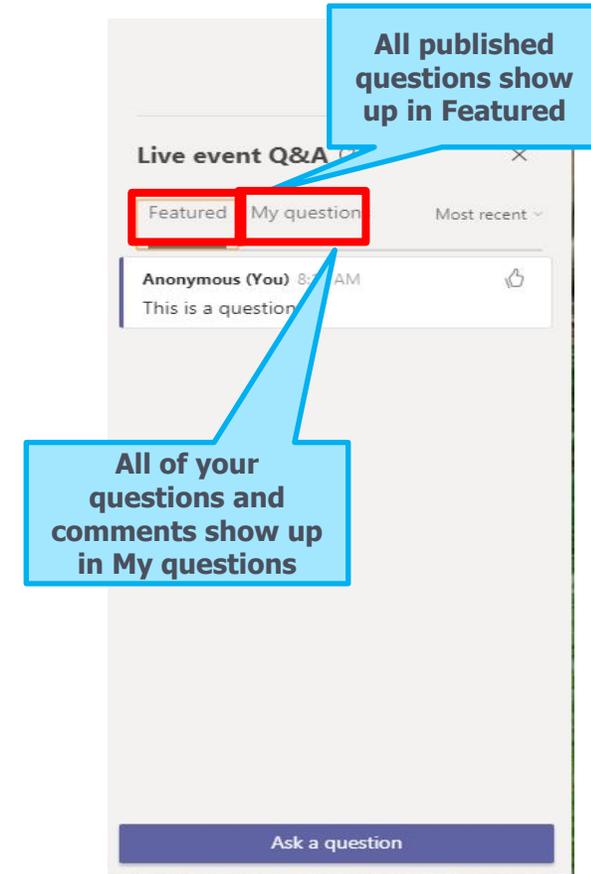
Learning Objectives

- Achieving Program Goals through Asset Management

  Alison Flenniken, EPA HQ

- Asset Management Eligibilities Through the Drinking Water State Revolving Fund

  Kiri Anderer, EPA HQ

- State Example:
  - Florida's Asset Management for Small Community Water Systems Program

    Shanin Speas-Frost, Florida Department of Environmental Protection

- Q&A at the end of the presentation.

In this presentation, we'll see how Asset Management:

- Helps achieve program goals

- Provides benefits for the programs

- Can be promoted within each program

The 5 Core Questions:
An Asset Management Framework

Asset Management

1 Current State of Assets
- Asset Inventory Spreadsheet Tool
- System Mapping

2 Level of Service
- Customer Service Training Class
- Asset Management Plan Requirements

3 Critical Assets
- Asset Inventory Spreadsheet Tool
- Risk and Resilience Assessment

4 Minimum Life Cycle Cost
- Capital Improvement Plan
- Sanitary Survey – O&M questions

5 Long-term Funding Plan
- Rate-setting dashboards
- Business and Financial Training Class

America's Water Infrastructure Act of 2018 (AWIA)

AWIA Section 2012 amends the SDWA and requires:

➢ That the states amend the state capacity development strategy to include a **description of how the state will encourage the development of asset management plans** that includes best practices and include any training, technical assistance and other activities to help implement asset management plans.

➢ That the state includes an update of these activities to encourage asset management practices in the Governor's report.

➢ EPA to review and update, if appropriate, asset management documents and trainings every five years.

Capacity Development Program

Capacity Development is the process of water systems acquiring and maintaining the knowledge, tools, and resources to demonstrate it can provide safe and reliable drinking water now and in the future

The inter-related parts of water system capacity are technical, managerial, and financial (TMF) capacity

How does Asset Management support Capacity Development goals?

An Asset Management program can help document a water system's capability to provide safe drinking water. This includes knowledge of a system's:
• assets,
• how they need to be maintained,
• how much it's going to cost to repair, rehab, and replace them in the future

Benefits for Capacity Development

Decreased Need For Direct Technical Assistance

Improved Compliance

Better Prepared And Positioned To Respond To New Regulations And Any Type Of Emergency

Promoting Asset Management through Capacity Development

Ways to promote asset management:

➢ Include in your Capacity Development Strategy

➢ Add asset management related questions to your capacity assessment forms

➢ Include asset management related questions in your sanitary surveys

➢ Become familiar with what's typically in an asset management plan

➢ Encourage third party technical assistance providers to provide training and/or assistance to systems

Operator Certification Program

Operator Certification helps protect human health and the environment by establishing minimum professional standards for the operation and maintenance of public water systems.

The goal of all operator certification programs is to ensure that skilled professionals are overseeing the treatment and distribution of safe drinking water.

How does Asset Management support Operator Certification goals?

An Asset Management program can help operators:
- know the importance of being more aware of the condition of their system's infrastructure and
- the importance of proactive maintenance.

Promoting Asset Management through Operator Certification

Ways to promote asset management:

➢ Allow CEU credits for asset management training

➢ Tailor asset management training to the operator's roles

➢ Use as part of succession planning efforts

➢ Include in your state's Capacity Development Strategy

DWSRF Program

DWSRFs make funds available to drinking water systems to finance infrastructure improvements needed to achieve or maintain compliance with SDWA requirements

States may take a portion of the funds, known as set-asides, to fund a range of activities including capacity development, operator certification, and source water protection.

How does Asset Management support DWSRF goals?

An Asset Management program can help:
• document a water system's ability to comply with SDWA requirements over the long-term, and
• show the financial ability of a system to repay a loan financed by the DWSRF.

Promoting Asset Management through DWSRF

Ways to promote asset management:

- ➢ Provide incentives:

  - ➢ Priority ranking points

  - ➢ Lower interest rates

  - ➢ Funding for asset management plan development

- ➢ Require systems to develop and implement asset management plans as a condition of receiving a loan

- ➢ Include in your state's Capacity Development Strategy

DWSRF ELIGIBILITIES

Loan Fund

"Evaluations that might result in a capital project"
- Planning and design
- Water audits and leak detection studies
- Condition assessments
- Identification of service line materials
- Life cycle costing optimization
- Development of asset management programs

"Large capital equipment purchases"
- Database infrastructure or software
    + Asset Management Systems
    + Inventory tracking software
- Water audit/leak detection software and equipment

2017

Drinking Water State Revolving Fund
Eligibility Handbook

Provisional Document
June 2017

https://www.epa.gov/drinkingwatersrf
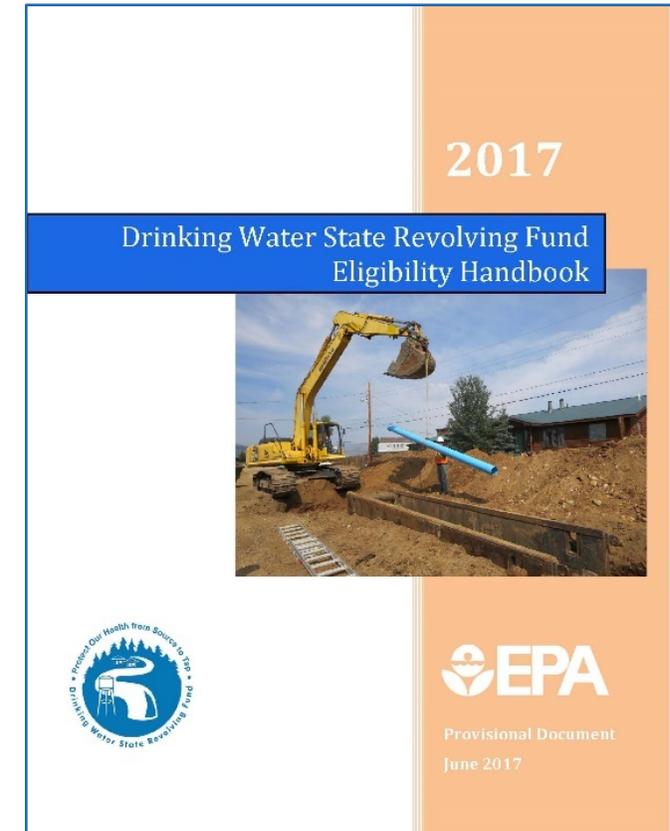
Set-Aside Activities

Develop and implement asset management plans for communities

Evaluate asset management plan results

Develop and provide asset management training

Contract with technical assistance providers to provide on-site technical assistance and training for asset management

2017

Drinking Water State Revolving Fund
Eligibility Handbook

Provisional Document
June 2017

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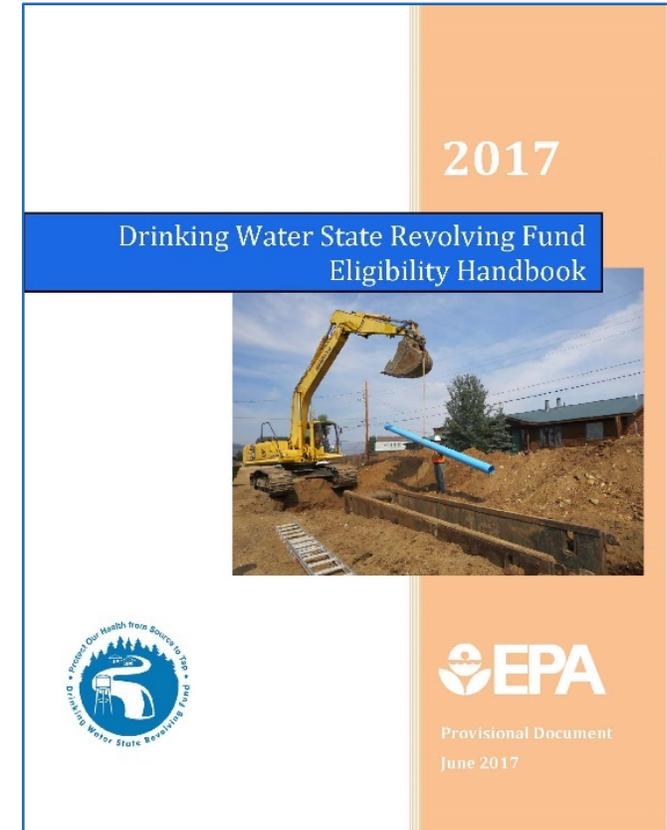
State Examples

DELAWARE

Has an Asset Management Grant program using their non-federal administration account. Max grant amount is $100,000 and 17 systems to date have received funding.

OHIO

Recent state legislation requires all water systems to have an asset management plan (therefore, it's required to receive DWSRF Funding). Use the Local Assistance (15%) Set-Aside to provide funding to develop and update plans.

MAINE

Uses the Local Assistance (15%) Set-Asides to offer several ways to fund the development of asset management and provide training

- Capacity Development Grants (up to $20,000, but no more than 50% of cost) to solicit professional services to help develop asset management plans
- Required one-on-one asset management training for disadvantaged communities (if receiving 20% principal forgiveness)
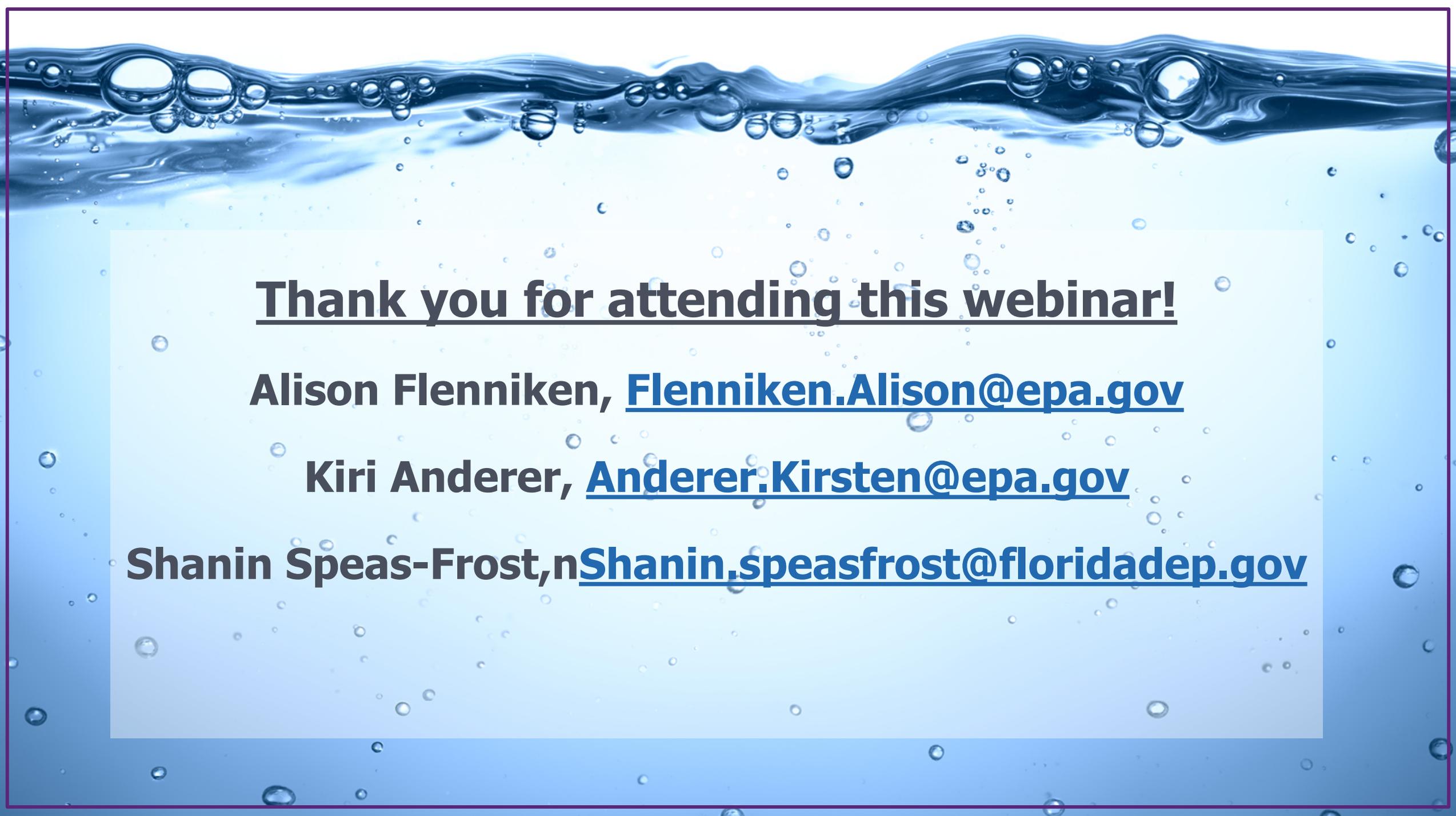
Thank you for attending this webinar!

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Florida Department of Environmental Protection

Building Capacity in Action
April 28, 2021

Florida's Small System Asset Management Program
A Cooperative Effort Between Florida's SRF Programs and the Florida Rural Water Association

Florida's DWSRF Rule Incentivizing Asset Management

- Allows the development of the AMP as a loan eligible cost (planning, design or construction)

- Provides for an interest rate reduction of 0.1 % for loan recipients with an asset management plan (AMP) that has been implemented

- Rate reduction applies to future loans as long as the loan recipient can demonstrate that the AMP is still being used

AMP Requirements

The AMP must include:

    (a) Identification of all assets within the project sponsor's system;

    (b) An evaluation of the current age, condition, and anticipated useful life of each asset;

    (c) The current value of the assets;

    (d) The cost to operate and maintain all assets;

    (e) A capital improvement plan based on a survey of industry standards, life expectancy, life cycle analysis, and remaining useful life;

    (f) An analysis of funding needs;

AMP Requirements (cont.)

(g) An analysis of population growth and wastewater or stormwater flow projections, as applicable, for the sponsor's planning area, and a model, if applicable, for impact fees; commercial, industrial and residential rate structures; and industrial pretreatment fees and parameters;

(h) The establishment of an adequate funding rate structure;

(i) A threshold rate set to ensure the proper operation of the utility, if the sponsor transfers any of the utility proceeds to other funds, the rates must be set higher than the threshold rate to facilitate the transfer and proper operation of the utility; and

(j) A plan to preserve the assets; renewal, replacement, and repair of the assets as necessary, and a risk-benefit analysis to determine the optimum renewal or replacement time.

Partnership with FRWA

- Contracted with the Florida Rural Water Association to prepare Asset Management Plans (AMP) for small disadvantaged wastewater system in 2014

- Program expanded in 2016 to add drinking water systems using Set-Aside funding

GIS

- Needed low cost GIS system

- Consultant hired to evaluate various available affordable software packages

- Negotiations with DiamondMaps resulted in an affordable GIS system starting at $20 per month

- Now available with improved features
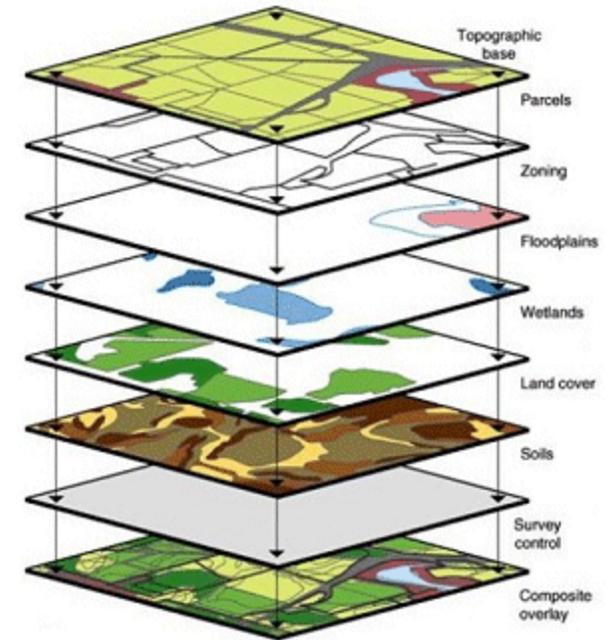
Diamond Maps

- Includes a Computerized Maintenance Management System

- Automates work orders

- Tracks repairs allowing weakest areas to be identified quickly

- Can be used to track other assets

- Stores size, material, age, condition, criticality, and repair/replacement cost
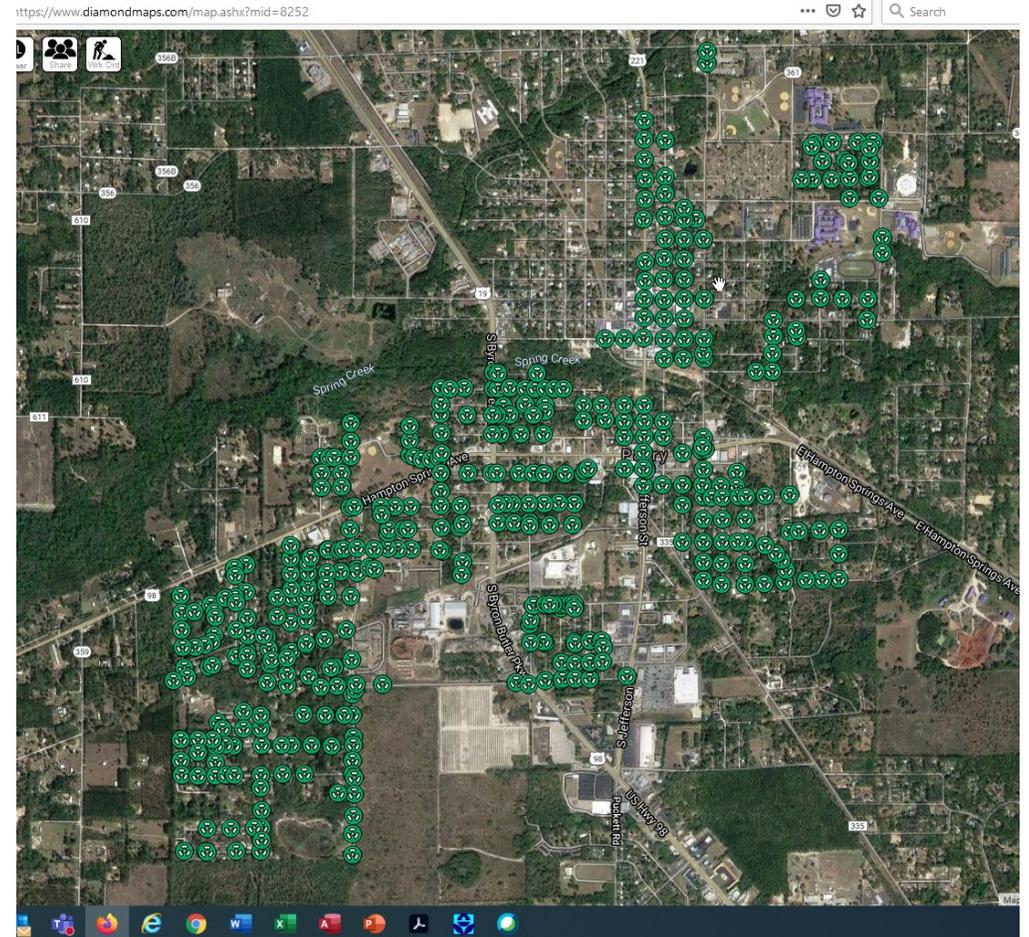
RevPlan

- Financial Module that links to Diamond Maps
- Systematic approach to rate setting based on projected revenues and expenditures
- Projected capital projects as well as replacement and rehab costs are incorporated into the recommended rates
- Allows various funding scenarios
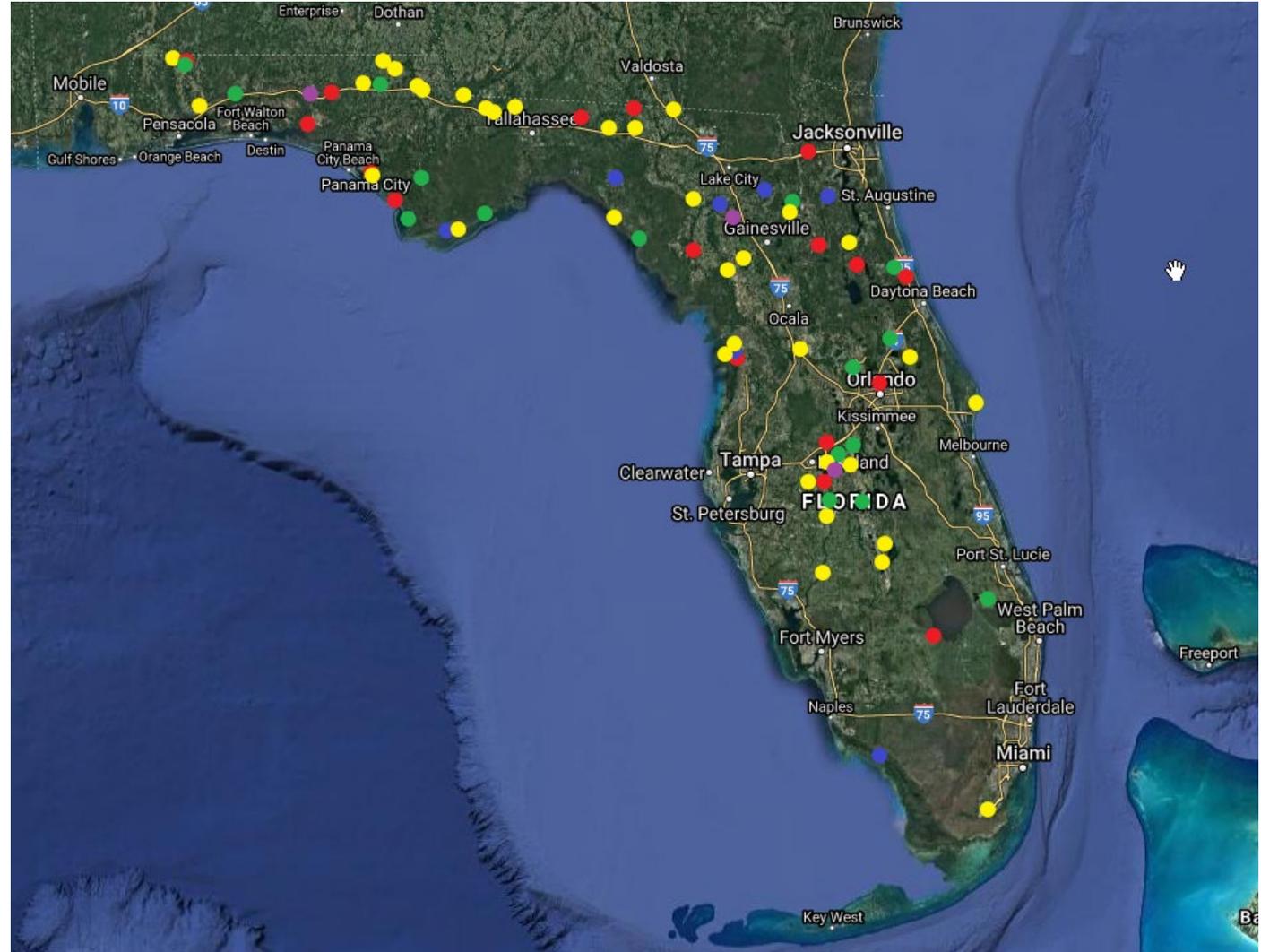
General Process Overview

1. Getting Started Onsite
   - Assigned by SRF (prioritize)
   - Initial contact by FRWA and site visit scheduled
   - Start up meeting, introductions and site evaluation conducted
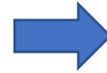
2. AMP Development
   - Review documentation
   - Field locate and enter assets
   - Prepare Draft AMP
   - Solicit comments and revise draft
   - Finalize AMP

3. Implementation
   - Present to governing board for adoption
   - Follow-up
   - Provide ongoing assistance

Onsite Considerations

Communications is Key!

- Involve Management in the process
- Thorough explanation of the process
- Teamwork and the municipality involvement is critical

Establish a Relationship

- Must understand SRF and the City's needs and goals
- A single responsible point of contact with the Utility is desired
- Work done on the utility's schedule and staff availability

Scheduling

- Verification first that needed documentation will be available
- Discussion of assets to be evaluated and process
- Schedule on site evaluations to coincide with management and staff availability
- Cost savings by scheduling follow-ups with other municipalities along route - clustering

AMP Development

Input Assets

- Cell phone, computer or tablet using DiamondMaps
- Can be done in field or in office

Review and Acceptance

- Utility management must be involved in the draft review process

- FRWA offers solutions and assistance wherever possible

- The plan is verified that it fits the needs of the City as well as DWSRF

- **<u>The plan valuations and recommendations must be reasonable. Avoid Sticker Shock!</u>**

Implementation

Finalize the AMP

- Only after agreement that all comments are answered and the municipality is onboard

- FRWA attends Governing Board Adoption meeting to present and answer questions

Follow-up

- City contacted on a monthly basis at beginning

- FRWA Circuit Rider follows up periodically and provides a list of issues found to AMP team

- AMP revisited thereafter to check on implementation

Challenges Encountered

Onsite
- Lack of Routine Maintenance (e.g., deferred maintenance)
- Lack of record keeping
- Failing equipment due to lack of maintenance or reinvestment

Staffing
- Assigned staff lacks system knowledge/inadequately trained
- Assigned staff not privy to information requested
- Staff shows no ownership of the system
- Sub contracted operators not present during plant inspections

AMP Development
- Difficulty in obtaining or lack of needed documentation
- System valuation will not be accurate without information on number of pumps, wells, length of pipe, etc.
- Lack of buy in if system valuation is overestimated based on the lack of accurate system information

Benefits of AMP

- Much less expensive to address leakage and water loss/revenue loss than to seek new water source!
- Helps maintain compliance with SDWA
- Prioritizes projects
- Helps set rates for needed maintenance
- AMP program through DiamondMaps is adaptable
- Produce work orders and tracks new equipment
- The AMP is a living document and is intended as a tool to assist the City
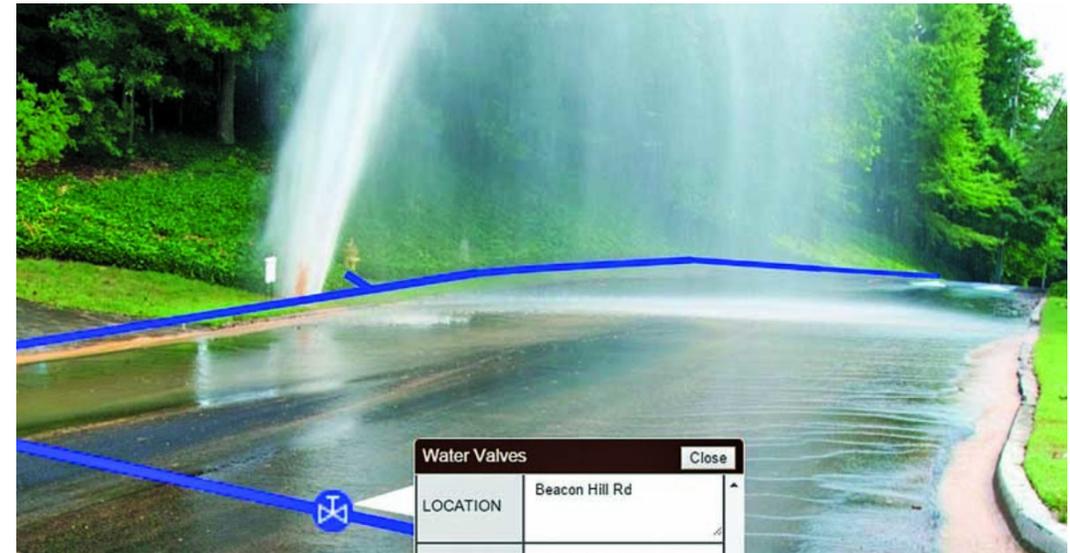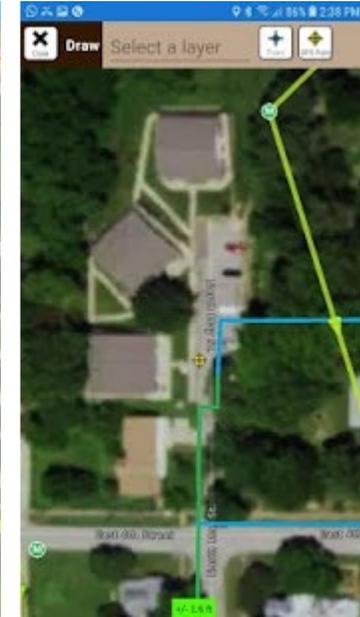
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