Asset Management Planning for Tribal Utilities

August 16, 2023

United States Environmental Protection Agency

Office of Water

Welcome!

All attendees are in listen-only mode. Please do not unmute yourself during the presentation.

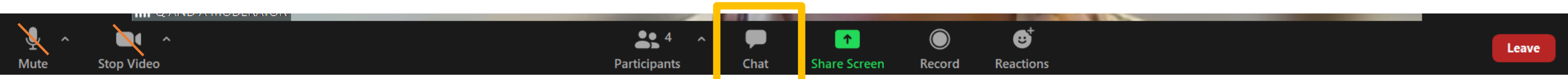
We will be recording this webinar. Please do not turn on your video during the presentation.

The recording and slides will be posted and a link emailed to all registered attendees 1-2 weeks after the webinar.

You many find additional drinking water webinars and resources at www.epa.gov/dwcapacity

We encourage attendees to ask questions throughout the presentation by using the chat feature.

DIRECT YOUR QUESTIONS TO "Q & A MODERATOR"



Chat box will pop up.
Type in your questions at the bottom.

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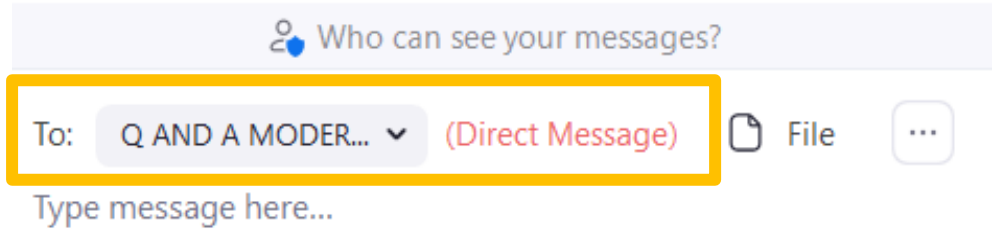


Presenters

Drew Pizzala, U.S. Environmental Protection Agency

Tony Garcia, U.S. Environmental Protection Agency

Leo Dion, Senior Rural Development Specialist, Great Lakes Community Action Partnership

Glen Terry, Operator, Great Lakes Community Action Partnership

Shannon Peters, Director of Utilities, Saginaw Chippewa Indian Tribe of Michigan

INTRODUCTION TO ASSET MANAGEMENT

Presenter:
Drew Pizzala

What are Assets?

All the physical components, buildings, land, and people needed to deliver safe and clean water.

- Physical components can be small to large, sometimes expensive, often long-lived and buried
- Essential to protect public health

Asset Management is…

"A process for maintaining a desired level of customer service at the best appropriate cost."

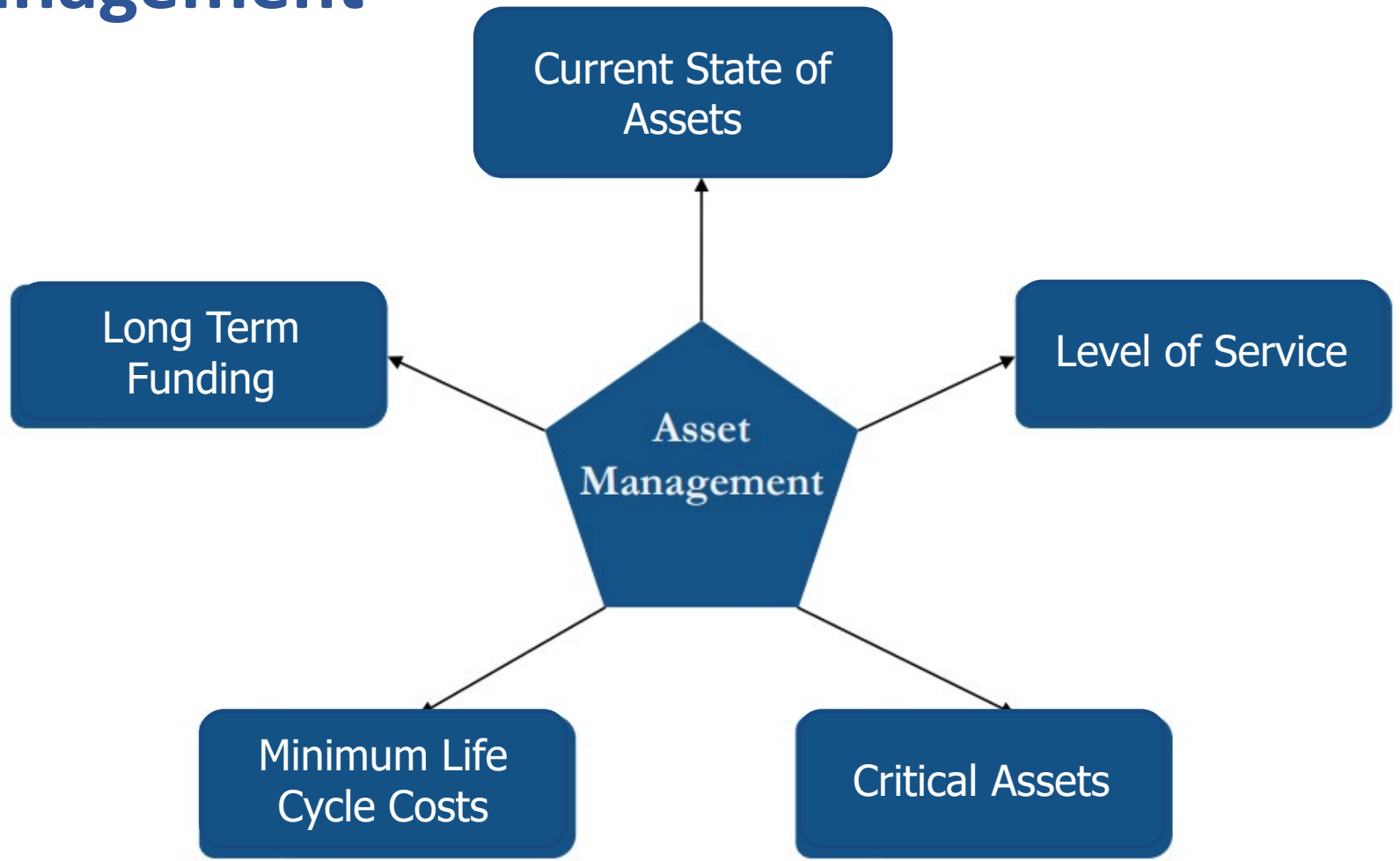
This includes:

Building an inventory of your assets

Scheduling and tracking maintenance tasks through work orders

Managing your budgeted and actual annual expenses and revenue

The 5 Core Component Framework for Asset Management



Determining Level of Service

Describing the utility's short- and long-term performance goals, as well as the customer's expectations for service.

Important to communicate with customers and stakeholders to provide transparency and accountability on what is being done day to day and collaborate on how to address gaps in current service delivered.

Questions to Ask:

- What do regulators require?
- What are the utility's performance goals?
- What level of service do the customers demand?

Rusted iron water pipe

Credit: Timothy Ford, Montana State University

Taking an Inventory

Documenting where the utility's assets are and what condition they are in.

Because some of this information can be hard to determine at first, an inventory will only become more accurate as assets are replaced or rehabilitated, and staff respond to work orders and emergencies.

Questions to ask:

- What does the utility own?
- Where is it?
- What is its condition?
- What is its remaining value?
- What is its remaining useful life?

Ruptured Wooden Water Tower, March 1999

Credit: Charles Myers, Rolla, MO

Prioritizing Critical Assets

Identifying the most critical assets to a utility in order to allocate resources for rehabilitation or replacement efficiently.

Not every asset presents the same failure risk or is equally critical to a system's operations. Critical assets are those the utility decides have a high risk of failing (the asset is old or in poor condition) and major consequences if they do fail (major expense, system failure, safety concerns, etc.).

Questions to ask:

- How can assets fail?
- What are the likelihoods and consequences of asset failure?
- What does it cost to repair the asset?
- What are other costs that are associated with asset failure?

Leaking valve

Credit: Rural Community Assistance Corporation

Minimum Lifecycle Cost and Long-Term Funding Strategy

Understanding the full economic costs of services and future costs in order to develop a budget and make capital improvement decisions.

Capital Improvement Plans and long-term funding strategies empower utilities to better understand the needs for potential projects

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<u>Questions to ask:</u>

- What long-term funding strategies fit the organization?

Implementing Asset Management Plans

Coordinating with operating staff, decision makers, customers, and with regulators to carry out the asset management plan and ensure the technical and financial means are available to deliver safe water to tl community.

Once a utility has developed an asset management plan, it is important for that plan to evolve as the utility gains more information and priorities shift. Starting small and growing from what is learned along the way is best.

Questions for utilities to ask themselves:

- How often to review and update the asset management plan?
- Who are the stakeholders to help implement the asset management plan and/or provide resources?

Resources for Capacity Building and Asset Management

Asset Management Resources Include:

- Asset Management: A Handbook for Small Water Systems (STEP Guide)
- 2018 State Asset Management Initiatives Document
- Reference Guide for Asset Management Tools

Additional EPA Resources:

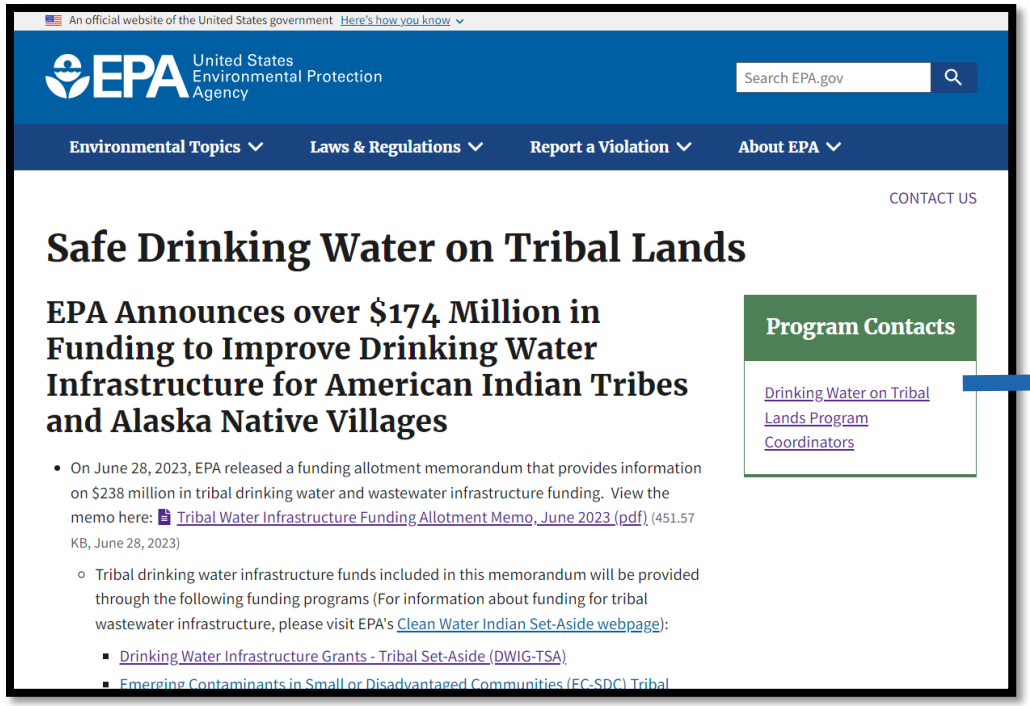
- https://www.epa.gov/dwcapacity
- https://www.epa.gov/tribaldrinkingwater/tribal-utilities-role-safe-drinking-water-tribal-lands-1

FURTHER EPA RESOURCES AND EPA CONTACTS FOR TRIBAL DRINKING WATER SYSTEMS

Presenter:

TONY GARCIA

Visit EPA's Tribal Drinking Water Website



Safe Drinking Water on Tribal Lands
https://www.epa.gov/tribaldrinkingwater

Directory for EPA's Drinking Water Coordinators

Tribal Drinking Water Funding Opportunities

- The Bipartisan Infrastructure Law provides an historic investment in tribal water infrastructure, providing approximately $965 million in additional funding over five years.
- On June 28, 2023, EPA released a funding allotment memorandum allocating $174 million in tribal drinking water infrastructure funding for the next year through the following tribal grant programs:
  - Drinking Water Infrastructure Grants – Tribal Set-Aside
  - Emerging Contaminants in Small or Disadvantaged Communities Tribal Grant Program
  - WIIN Act Section 2104: Small, Underserved, and Disadvantaged Communities Tribal Grant Program
- These grant programs can support enhancing tribal water systems' technical, managerial, and financial capabilities, including aspects of Asset Management Frameworks.

Webpage for EPA's Tribal Drinking Water Grant Programs

EPA Water Technical Assistance (WaterTA)

- Technical assistance (TA) is a critical component of EPA's strategy to **enhance tribal drinking water infrastructure in Indian Country**.
- Focus on **improving technical, managerial, and financial capacities** of water systems.
- Much of the funding available through the Tribal Drinking Water Grant Programs can be used to **support Tribes for training and technical assistance activities**, including Asset Management initiatives.
- **Easy Access to Technical Assistance** through WaterTA request form on the EPA website here.

Access Water TA website and the Water TA Request Form:
Epa.gov/waterta

Contact your Regional Tribal Drinking Water Coordinator
Tribal Drinking Water Contacts page.

Asset Management for Tribal Systems

Presenters

Shannon Peters

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Saginaw Chippewa Indian Tribe of Michigan

Glen Terry

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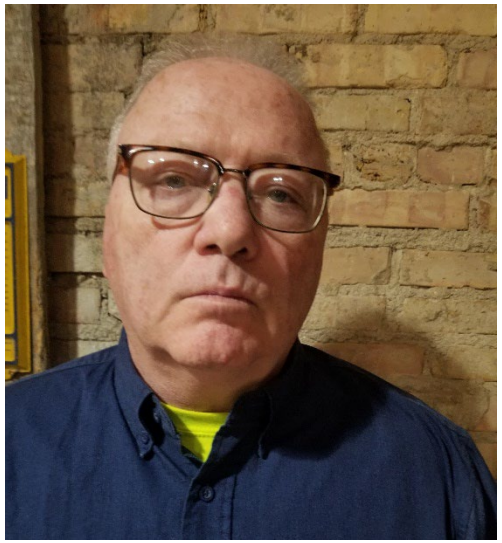
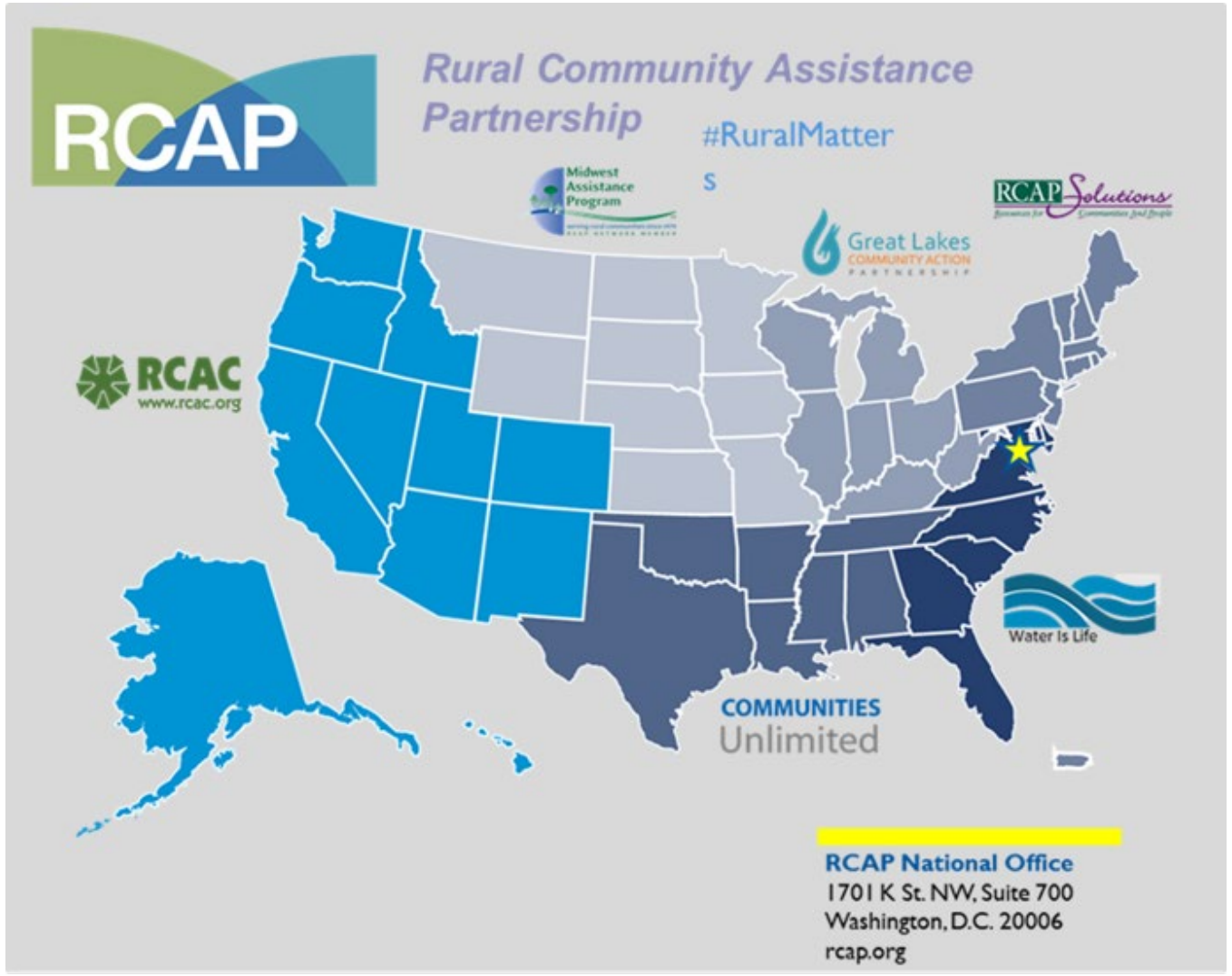


Leo Dion

Sr. Rural Development Specialist

Michigan RCAP

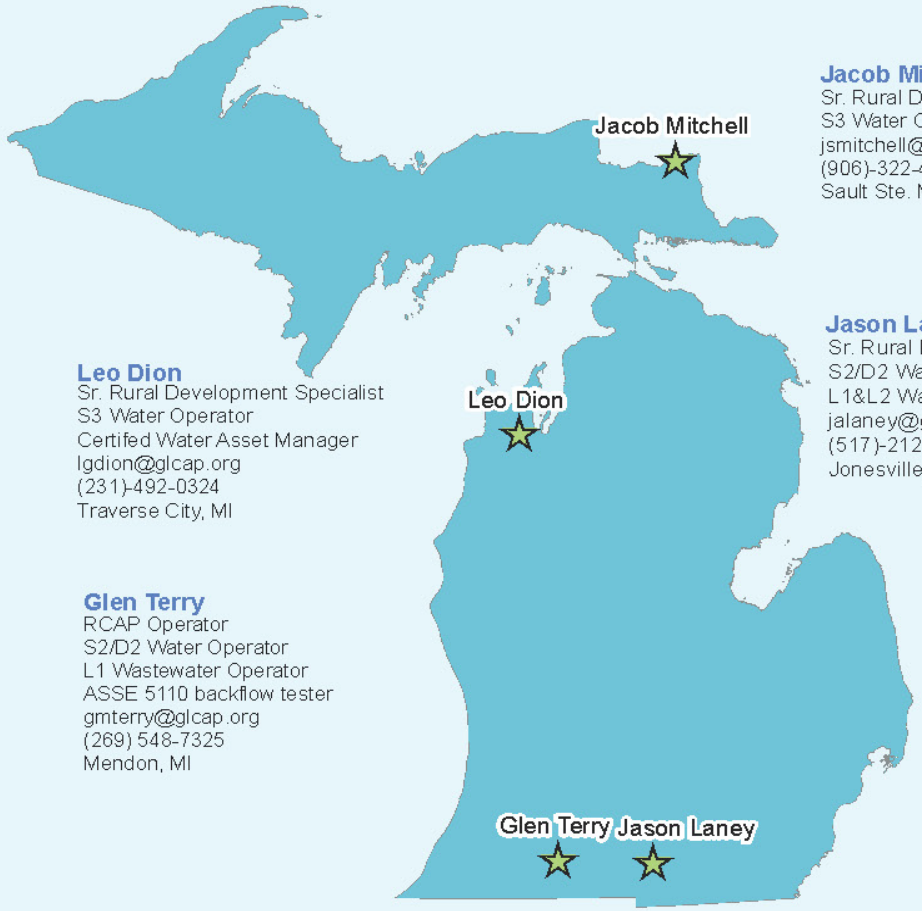
National Network for Rural Communities



Who we work with

- Rural and tribal communities
- < 10,000 population
- Often less than 2,500 population

Michigan RCAP Staff / Services



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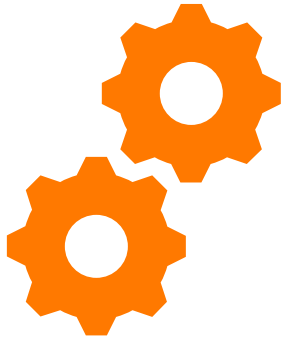
RCAP
Rural Community Assistance Partnership

Why Asset Management?

An asset management program incorporates detailed asset inventories, operation and maintenance tasks, and long-range financial planning to build system capacity and put water systems on the road to sustainability



Switching from reactive to proactive management of the system, which will reduce the lifecycle cost. Cohesive approach that brings together operations, engineering, and financial staff to plan for the utility

What is Unique About Tribal Systems in Michigan?

The systems are relatively new (< 50 years old)

Systems have significant operating revenue from their business sector (hotels, casinos, recreation, entertainment, etc.)

The Benefits for Tribal Water Systems

- To develop a program that will improve preventative maintenance (proactive approach) and improve operational efficiency i.e. planned maintenance is less expensive than emergency repairs
- To document maintenance history and monitor equipment performance
- To develop a capital improvement and asset replacement strategy
- To increase emergency preparedness
- To implement sustainable utility rates
- Especially valuable for smaller systems

Asset Management

STANDARD OPERATING PROCEDURE (SOP) AND OPERATIONAL REVIEW

ASSET INVENTORY

CONDITION & RISK ASSESSMENT

IDENTIFY PREVENTATIVE AND PREDICTIVE MAINTENANCE

PERFORMANCE BENCHMARKS

CAPITAL IMPROVEMENT PLAN

RATE ANALYSIS

Phase 1

- SOP on-site training and review of SOPs
  - Desk review of current SOPs
  - 2-days on-site walking through the water treatment facility to review SOPs and identify needed SOPs
- Operational review
  - Review of the operations while on site
  - Identify staffing and training needs

Phase 2

- Asset inventory water treatment facility
  - Asset data (location, year of install, manufacturer, model, operational status, design capacity, redundancy, tag number, etc.)
  - Condition assessment, redundancy & criticality
- Distribution System Map Inventory
  - Collect inventory data (location, year of install, capacity, material, manufacture, model, operational status, etc.)
  - Condition assessment, redundancy & criticality

Phase 3

- Preventative Maintenance Plan
  - Review record of repairs, alterations, and replacements
  - Create list of preventative maintenance including inspections, lubrication, adjustment and servicing of machinery, equipment, and structures
- Budget and Rate Study
  - Create a budget that includes expenditures for improved maintenance, corrective action, and capital improvements

Implementing an Asset Management Plan

- From AM plan to AM program
- Using the asset management plan to engage the decisionmakers
- Putting the plan into action (buy-in from the operators)
- Creating a culture of proactive management (preventative maintenance, asset replacement, financial planning, etc.)

Questions?

Thank you!

Thank you for attending!
Now for Q&A

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