



Smart Management for  
Small Water Systems

# Available Workshops

Smart Management for Small Wastewater Systems  
Program Round 9



Government Finance Officers Association

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*Most courses are day-long trainings that are designed to last six hours. However, in light of the increasing demand for live virtual and webinar-style training, most courses can be adapted for online delivery in segments of 1-2 hours. Please discuss your preferences for virtual or in-person trainings with Environmental Finance Center staff.*

# Introductory Asset Management: Optimizing Asset Life for Sustained Operations

## M- Managerial

In this workshop, you will learn about how asset management can benefit your system. Not sure where to begin? We will provide you with the tools you need to get started and will walk you through the process.

With limited revenues, aging infrastructure, and regulatory obligations to meet, a comprehensive approach to managing your system is vital. You may have problems related to unknown manhole, pipe, or cleanout locations. You may not be sure which asset(s) to replace first given limited funds. Asset Management can help you solve these problems, and more.

### You will learn how to:

- Identify the 5 core components of asset management
- Develop an inventory of utility components
- Identify critical assets for sustained operations
- Make decisions about how to operate, maintain, repair, and replace those assets
- Set goals for level of service at a sustainable cost

# Intermediate Asset Management: Beyond the Basics

## M- Managerial

Have you attended an introductory asset management workshop in the past? Have you read about asset management? Do you know the basics but not what to do next? If so, this workshop is for you. We will examine the next steps you can take in your asset management journey.

### We will discuss:

- Techniques, tools, and examples for developing and updating asset inventories and building maps
- Setting and measuring level of service goals
- Using data to assess probability of failure and consequence of failure
- Prioritizing projects based on risk analysis
- How risk analysis can be used to make decisions on asset maintenance and repair/replacement/rehabilitation options
- Funding and creating a Capital Improvement Plan

While all attendees are welcome, this workshop is most suited for attendees who have some understanding of the basics of asset management.

## **Advanced Asset Management: Completing and Implementing Your Plan**

### **M- Managerial**

Has your system started, completed, or hired an expert to help with an asset management plan? If so, you might be asking: What's the next step? What kinds of benefits will I be able to achieve? This workshop is an opportunity for systems that have progressed in asset management to share with each other and learn about how an asset management plan can be put into practice. The format of this workshop will be highly interactive and discussion-based.

All attendees are welcome, but content will be most relevant for systems that have developed an asset management plan (either all or in part) or are implementing portions of asset management.

## **Financial Management for Small Wastewater Systems: Planning for the Next 5 Years and Beyond**

### **M- Managerial**

You work hard to provide safe, quality drinking water to your customers at fair rates. But how are your finances? This training will teach you about utility finance, how to track and benchmark financial performance, plan for future capital costs, and revenues and rate design. You will learn about these topics through examples from real small systems. This workshop will provide you with the tools to improve the fiscal health of your utility without compromising service or deferring maintenance.

**You will learn how to:**

- Design appropriate rate structures
- Track and benchmark financial performance
- Plan for future capital costs
- Identify external funding sources (loans and grants)

## **Building Resilience by Planning for an Uncertain Future**

### **M- Managerial**

Now more than ever, utilities must learn to be agile when faced with multiple, often urgent, challenges. We will discuss potential extreme disruptions in your region. We will also give you tools to identify risks and manage and plan for impacts.

**In this workshop, you will learn:**

- How extreme weather can pose a risk to your system
- How to build and assess impact scenarios to identify vulnerability

- How to engage your community in resiliency planning

## **Strategic Planning Tools for Small Wastewater Systems**

### **M- Managerial**

Strategic plans are vital to the long-term sustainability and success of any organization. All systems should develop strategic plans that identify their goals, define their importance, and incorporate opportunities to maintain and improve performance in the face of an uncertain future.

#### **In this workshop, you will learn to:**

- Identify and address strengths, weaknesses, threats, and opportunities for your system
- Use simple tools to help you plan for your goals, and mitigate your weaknesses and threats
- Develop a process to support and grow your team

## **Effective Communication and Decision-Making Strategies for Small Wastewater Systems**

### **M- Managerial**

Successful employees need strong communication skills to influence attitudes and get things done. Regardless of your position, leadership occurs at every level of a wastewater system.

#### **You will learn how to:**

- Communicate with the public, your board, elected officials, regulatory, and funding agencies
- Build support for decisions involving rates, budgets, and capital improvements
- Be a compelling communicator to raise awareness, and change attitudes and behaviors
- Create a motivated, adaptive, and safe workplace
- Reduce conflict, and improve staff collaboration and participation in decision-making

## **The Power of Partnership: Sharing Resources with Neighboring Systems**

### **M- Managerial**

Running a small system can be challenging. Along with meeting regulatory obligations and satisfying customer expectations, you may have issues with aging infrastructure, lack of personnel, and limited financial resources. Furthermore, small systems often cost more to operate per capita than large systems because of economies of scale. This can further complicate operations.

One strategy to address these challenges is to work with other utilities. In this workshop, we will discuss various approaches to collaboration, including:

- Informal information sharing
- Sharing personnel
- Leveraging shared purchasing power
- Mutual aid agreements
- We will also introduce asset management and funding options to help you address your needs.

## **Workforce Planning: How to Attract and Retain Talent at Your Wastewater System**

### **M- Managerial**

Small utilities can struggle to recruit and retain experienced staff. What will happen when your utility's operator or manager retires? Who knows what they know? Who will replace them? This workshop will focus on succession planning, recruitment, and staff retention strategies. Workforce planning strategies can help ensure that you attract and retain a strong team. These strategies can also provide a basis for better utility management and planning.

#### **You will learn how to:**

- Analyze gaps in your current workforce
- Maintain a workplace culture that attracts qualified applicants and partners
- Retain excellent talent long-term
- Recruit and work with younger generations
- Prepare for retirements with succession planning tips

## **Managing Your Wastewater System Into the Future**

### **M- Managerial**

From financial expertise to effective communication skills, utility managers and staff require a variety of soft and hard skills to manage their water system successfully now and into the future. In this workshop, you will learn to:

#### **In this workshop, you will learn to:**

- Recruit, retain, and develop the right people to run your system
- Ensure you get the longest life out of your infrastructure and have a plan to replace it
- Have the money you need for operations and capital
- Communicate these plans and financial needs to decision makers and the public

# Understanding and Applying Effective Utility Management Principles to Your Utility

## M- Managerial

Utility Management (EUM) framework, this training shows participants how to use the Ten Attributes of an Effectively Managed Utility" and the "Five Keys to Management Success" to identify both areas of strength and opportunities for improvement AND how to get started in making meaningful changes in everyday operations. Training includes: learning how to conduct an EUM self-assessment; how to use the results to identify priority areas to improve and the resources to help you; a progressive and interactive exercise in strategic planning; and interactive discussions on using measurement and benchmarking, implementing best practices in knowledge management, and addressing leadership challenges and issues. EUM is vitally important for all utility managers who want to get started on the path to developing an effectively managed and sustainable utility.

### Learning Objectives:

- How EUM can fit into your utility's management practices.
- How to use a tool based on the Ten Attributes to assess strengths and identify areas for improvement.
- About the relationship between EUM and the best practices of continual improvement including Deming's Plan-Do-Check-Act.
- How to link your EUM priorities to strategic goals and objectives.
- How to develop and use performance measures to track and report your progress.
- How utility managers are tackling the leadership challenges of the day in the wastewater sector.

### Who Attends:

- Utility leaders including executives, directors, general managers, assistants, and deputies
- Utility managers across the major functions of a utility -- Admin/HR, operations, customer service, finance, and engineering/planning
- Utility governance - board members, commissioners, etc.
- State primacy agency staff who work with utility managers on capacity development

# Green Asset Management: Incorporating Green and Natural Assets

## M- Managerial

Asset management provides the best framework to manage "gray" infrastructure (pipes, pumps, lift stations, treatment trains, etc.), and it can also be used to manage green infrastructure (forests, riparian areas, green roofs, rain gardens etc.). Green assets are often used to control and treat stormwater. Blending green infrastructure into asset management will give utilities the opportunity to view green and gray projects on equal footing and within the overall context of the system.

This training follows the same five core components of traditional asset management: Level of Service, Current State of the Assets, Criticality, Life Cycle Costing, and Long-Term Funding.



Participants will learn how to fit their current or future green infrastructure into these core components.

**We will discuss:**

- The 5 core components of asset management
- How to define a green asset
- Techniques, tools, and examples for developing a blended green/gray asset inventory
- Setting and measuring level of service goals
- Creative and unconventional funding sources available for green and gray infrastructure

## **Are your Rates too High? Looking at Wastewater Rate Affordability**

### **M/F- Managerial, Financial**

Concerns over affordability often stymie a needed rate increase. In many cases, the utility has not performed the relevant analyses to determine how extensive affordability concerns really are. This training will demonstrate how the “Water and Wastewater Residential Rates Affordability Assessment Tool” as well as other resources can be used to assess the level of affordability in the community, using parameters beyond the Median Household Income (MHI). The training will also include information and resources on how to design an assistance program for those customers who cannot afford their water bills. The programs highlighted will include options related to rates, as well as water efficiency.

## **Setting the Right Rates for Your Wastewater System**

### **F- Financial**

This intermediate level workshop will help you ensure the financial stability of your wastewater system while providing safe, quality service at fair rates. We will focus on understanding different types of costs for wastewater systems, how systems can select rate setting objectives and match those with appropriate rate structures, as well as best practices for rate setting and design.

**You will learn how to:**

- Develop rate setting objectives
- Determine the cost of providing wastewater service
- Anticipate changes in revenues year-to-year by changes in use
- Measure the affordability of rates for all of your customers
- Create rate structures that reflect your rate setting objectives

This workshop is designed for any community wastewater system that charges customers for wastewater service. Wastewater system managers, clerks, treasurers, board members, and others who budget and/or set rates are encouraged to attend.

# Controlling Energy Costs at Your Wastewater System

## F- Financial

Energy is one of the largest controllable costs of providing wastewater services. Energy can be as high as 40 percent of operating costs, and those costs will likely increase over time. Now is the time to look at your energy use and take action.

### You will learn how to:

- Conduct an energy audit and establish a baseline
- Establish energy efficiency projects at your system
- Calculate project payback and current performance
- Identify financing opportunities for your energy projects

# Access to Funding Sources

## M/F- Managerial, Financial

There are several federal and state programs that provide funding for water infrastructure projects. In this workshop, you will learn about specific financing programs from representatives from the relevant programs in your state. The workshop also includes information on best management practices to strengthen your utility's funding application. Discover how asset management, rate setting, and financial benchmarks can strengthen your proposal.

# Mapping and Data Collection

## T- Technical

System maps with accurate, up to date, and comprehensive asset data help to maximize the efficiency of utility operations, aid knowledge transfer, and foster data driven decision making. Implementing a system mapping program (or improving your existing program) can benefit your entire utility by making inventory tracking, operations, maintenance, capital improvement planning, and other activities more economical.

In this workshop we will examine different digital mapping platforms and data collection options, and review case studies to demonstrate the positive impact that a mapping program can have on your utility.

### In this workshop you will learn about:

- Collecting asset inventory, operations, and event data for risk assessment and other types of analysis
- Techniques and tools for developing and building digital maps that will tell you much more than simply where things are
- The benefits of tracking your O&M activities using mapping platforms
- How mapping can be leveraged to:
  - develop an asset valuation for your system
  - develop a Capital Improvement Plan
  - improve the efficiency of fieldwork activities
  - track a variety of other critical system information

## **Regulatory Compliance**

### **T- Technical**

The treatment of wastewater is essential to ensuring public health and clean water. Before treated wastewater can be discharged, it must comply with local, state, and federal regulations. This day-long training can be provided to assist wastewater utility personnel in understanding and complying with Clean Water Act (CWA) requirements, including understanding the National Pollutant Discharge Elimination System (NPDES) Permit. The training provides an overview of the rule, specifics on its requirements, combined sewer overflows (CSO) and sanitary sewer overflows (SSO) reporting, and helps systems understand how to comply with regulations under the CWA.

Additional topics could include advanced treatment options such as Nitrogen and Phosphorus removal.

## **Wastewater Operator Certification**

### **T- Technical**

A full day of training designed for operators of small wastewater systems preparing for wastewater operator certification exams. Topics provide an overview of material that may show up on a general exam, but the training would not be tailored for any particular state. If there was a specific section a state wanted to add to this training that could be discussed with the EFCN to see if that addition could be made. In addition, study skills and test taking skills can be reviewed. This review can also be provided virtually.

## **Basic Wastewater Math**

### **T- Technical**

The EFCN offers a wide variety of training on wastewater math topics that are tailored to meet the needs of each individual participant and can include breakout sessions for those that need a review of math fundamentals, and those interested in doing math associated with collection systems or treatment processes and other more complex operations. Each training focuses on the daily use of math at each participant's system to help better manage day-to-day operations and make informed choices that could affect system performance. Training can be either a half or a full day and can be provided virtually.