



PARTNERSHIP
FOR CLEAN WATER

WELCOME

PLEASE USE THE CHAT BOX TO PROVIDE:

- 1. Name**
- 2. Name of Utility**
- 3. Roll or Job Duty**



<WORKSHOP TITLE>

A Special Training Program for Small Systems
Made Possible through the Collaborative Efforts of



**Section Logo
Here**



GoTo Training Attendee View

Talking: Waiting to view Madeline Hamby-Scott's screen

Webcams Zoom Screenshot

Optimizing Performance & Accessing Funding to Improve Small Systems

Organizer: Madeline Hamby-Scott | Presenter: Madeline Hamby-Scott

Audio: Use your microphone and speakers (VoIP) or call in using your telephone.
United States: +1 (510) 365-3331
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Audio

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Computer audio
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MUTED

Microphone Array (Realtek Audio)

Speakers / Headphones (Realtek A...

Talking: **Bud Spillman**

Attendees: 8 of 53 (max)

Materials (5)

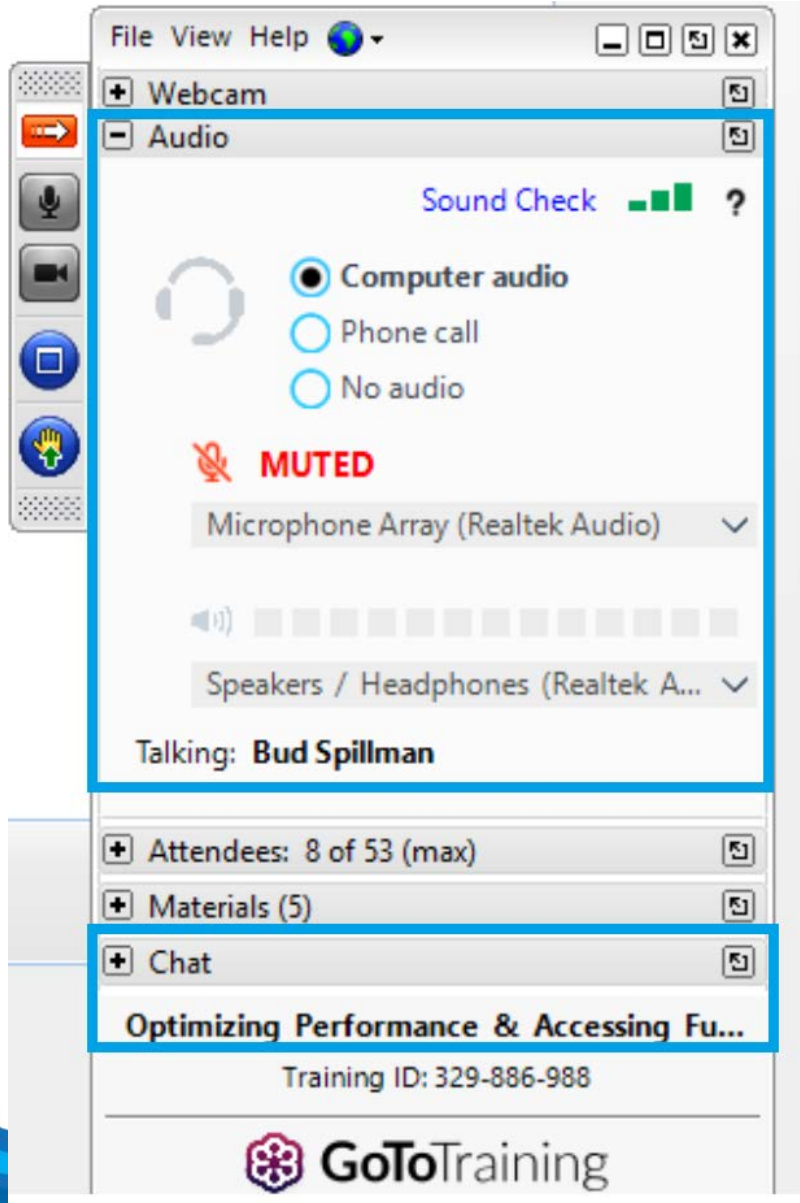
Chat

Optimizing Performance & Accessing Fu...
Training ID: 329-886-988

GoToTraining



How to Participate Today



- Open and close your Panel
- Audio: attendees are in listen only mode
- Submit text questions in chat box
- Immediately after the webinar, you will receive a short pop up evaluation.



Introduction

INSTRUCTOR

Instructor picture here

- Name
- Email
- Phone

- Bio

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Webinar Agenda and Learning Objectives

- Introductions and overview
- Conducting a Preliminary Self-Assessment
- How to apply for USDA funding
- Post- Test
- Where to go for additional assistance after this workshop



American Water Works Association

- Since 1881
- Develop and maintain standards for water utilities
- 43 sections bring together local utilities and their partners for education and training



Partnership for Safe Water



Our mission:

To improve the quality of drinking water delivered to customers of community water systems by optimizing operations.



Cyst Removal vs Filter Effluent Turbidity

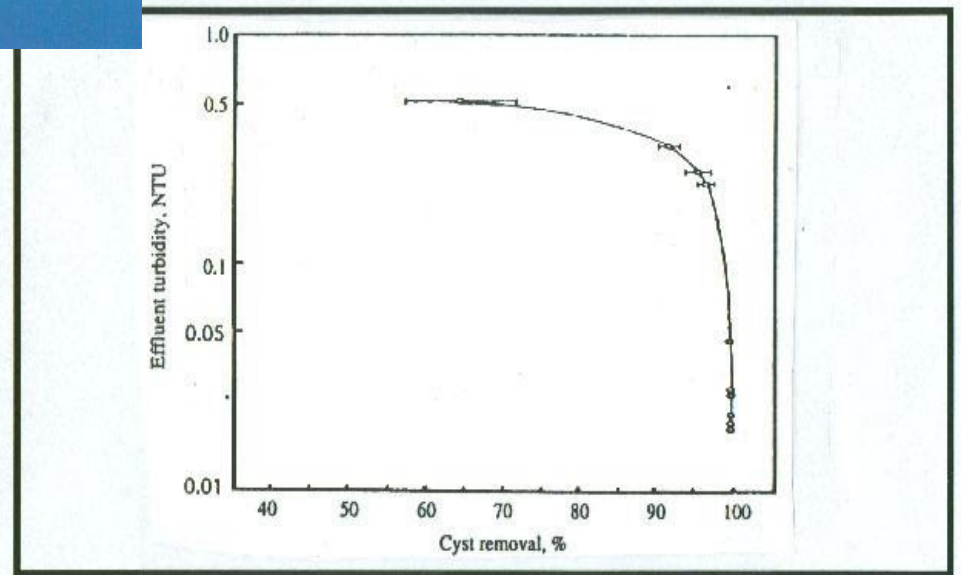
Why 0.10 NTU?



MPA 0.30 NTU



MPA 0.10 NTU





Partnership for Safe Water

- Existing programs
 - Treatment plant optimization (1995)
 - Groundwater Treatment Program (2017)
 - Distribution system optimization (2011)
 - Partnership for Clean Water (2016)
- New Program coming soon – *Partnership for Small Systems*



Four Keys to Partnership



- Make a commitment to improve
- Self-assessment to identify areas of improvement
- Work on improvements at your own pace (with help)
- Achieve success and receive recognition



Ultimate Goal is Optimization¹⁴

Dictionary

Search for a word



op·ti·mi·za·tion

/,äptəmə'zāSHən, äptə,mī'zāSHən/

noun

the action of making the best or most effective use of a situation or resource.
"companies interested in the optimization of the business"

Ultimate Goal is Optimization¹⁴

- Provides a pathway to identify areas of improvement
- Operations and governance collaborate for success
- Helps utilities protect public and environmental health through optimized management and operation

Five Core Areas for Self-Assessment

- General Management and Administration
- Financial Management
- Asset Management
- Source Water Protection and Production
- Distribution System Operations



Assessment Leads to Areas for Improvement

- Evaluate key areas
- Consider managerial, financial, and technical aspects
- Identify opportunities for improvements

We will do this today!



Getting Started – Preliminary Self-Assessment



- What are my biggest issues/needs/challenges?
- Which is the most important?
 - Public health and environmental protection
 - Compliance with rules and regs
 - Finances, funding and fiscal responsibilities
 - Workforce – training, equipment, etc.



General Mgt./Admin - Highlights



- Comprehensive understanding of full spectrum of responsibilities and requirements of owning/managing a public water system
- Managerial capability/competence with regard to hiring, developing, managing, retaining a staff that is appropriate for your system
- Actively engaged with customers and stakeholders, including working effectively with governance and maintaining effective professional relationships with state regulators and legislators.



Financial Management - Highlights



- Adequate rates and charges/fees based on cost-of-service
- Effective metering, billing, and collections policies and procedures
- Professional capabilities to manage financial procedures and ensure fiscal/fiduciary compliance and responsibility
- Investment strategies to ensure long-term viability of the system



Asset Management - Highlights



- Asset inventory and condition Assessment
- Conduct risk assessment (criticality and priorities)
- Adequate budget for renewal and replacement of critical assets
- Adequate budget for capital projects
- Effective maintenance approach to optimize full life cycle of all assets



Source Protection/Production - Highlights

Key Criteria to Self-Assess

- Wellhead protection
- Quality of source water
- Quantity of source water
- Disinfection

Additional Areas to Consider

- Supplementary treatment, e.g., for hardness, taste and odor
- Security

Distribution System - Highlights

Key Criteria to Self-Assess

- Disinfectant Residual
- Breaks
- Pressure Management

Additional Areas to Evaluate

- Water quality compliance – e.g., lead and copper, TCR, DBPs
- Internal and external corrosion
- Installation/repair of pipelines
- O&M of hydrants, valves, blow-offs, storage tanks

First Exercise

- **Choose the top 2 (two) things that you think you do WELL at your utility?**
- Choose the top 2 (two) things that you need to improve or address in the short-term (next 3 to 12 months)



First Exercise

- Well Maintenance
- Tank Maintenance
- Asset Management / Capital Planning
- Meter Accuracy
- Treatment System Repairs
- Staffing improvements
- Pumping improvements
- Water Loss Control
- Distribution System Maintenance
- Finance Management
- Regulatory Compliance



First Exercise

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First Exercise

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Discuss “Top Two’s”
as a Full Group
Instructor will look at poll and
bring up the three highest



Let's Dig In – Preliminary Assessment

- Worksheets: *Preliminary Self-Assessment of Best Opportunities For Improvement*



Preliminary Assessment of Best Opportunities

- Part 1 – General Profile
- Part 2 – Preliminary Assessment of Five Core Areas
- Part 3 – Identify Top 3 Opportunities to Improve
- Part 4 – First Check on “Loan Eligible” Project



Part 1 of 4 - Profile

General Profile

Complete the following questions and share with the group when prompted by the instructor.

1. **Size of population served** – either actual number or check a box to fit a range or both
 10,000 or more (How many? _____)
 5,000 to 10,000
 2,500 to 5,000
 Less than 2,500 (How many? _____)

2. **Type of entity**
 Publicly owned utility, part of a city, town, village, etc.
 Publicly owned special district
 Publicly owned, private contractor operated
 Privately owned public water supply system
 Other (Explain: _____)

3. **Type of governance** – council, commission, board – elected or appointed
 City/Town/Village Council
 Board or commission: Elected or Appointed
 Other (Explain: _____)

4. **Staff responsible for operation** –
 - a. **Total Size of Your Staff (FTE):** _____
 - b. **Who's on the Team?** -- Please put a checkmark next to all of the roles you have in your organization (even if the same person holds more than one role). If you have an organizational chart or can draw one, please include.

Roles/Titles	How Many?
Manager, Director, or Owner	
Financial or Business Manager	
Customer Service Manager	
Other Office Staff	
Operations Manager	
Lead Operator in Responsible Charge	
Treatment Plant Operator	
Distribution System Operator	
Collection System Operator	
Maintenance Worker/Mechanic/Electrician	
Other (List)	

Part 1 of 4 - Profile

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 Other (Explain: _____)

3. **Type of governance** – council, commission, board – elected or appointed
 City/Town/Village Council
 Board or commission: Elected; or Appointed
 Other (Explain: _____)

4. **Staff responsible for operation** –
 - a. **Total Size of Your Staff (FTE):** 1.5 (Three Part-Time Employees)
 - b. **Who's on the Team?** – Please put a checkmark next to all of the roles you have in your organization (even if the same person holds more than one role). If you have an organizational chart or can draw one, please include.

Roles/Titles	How Many?	Years in Water
Manager, Director, or Owner		
Other Office Staff	1	10
Lead Operator in Responsible Charge	1	0.5
Treatment Plant Operator		
Distribution System Operator		
Collection System Operator		
Maintenance Worker/Mechanic/Electrician		
Other (List)	1	8



Part 2 of 4 – Preliminary Assessment



Preliminary Self-Assessment of Best Opportunities for Improvement

All participants complete the entire assessment on their own (with multiple representatives from same system working as a team) – using the provided worksheet

Facilitators check progress and make sure everyone is done with self-assessment questions

General Management and Administration

Does your management and administration have or display any of the following:	Fully Yes	Partly Yes	Fully No	Not Sure	Notes and Explanation of Your Current Situation
Support for organization-wide continual improvement					
Adoption of policies to confirm ownership and governance roles and responsibilities for legal and regulatory requirements for all aspects of operations.					
Emergency preparation and response plan built to address emergencies, natural disasters, and/or other disruptions of service					
Sufficient staff with appropriate skills, certifications, and licenses to manage and operate the system.					

Financial Management

Does your system have or display any of the following?	Fully Yes	Partly Yes	Fully No	Not Sure	Notes and Explanation of Your Current Situation
Financial policies to ensure adequate rates, fees, and charges are properly collected.					
Revenues sufficient to cover costs of operations, debt service, and reserves					



Preliminary Self-Assessment of Best Opportunities for Improvement

EXAMPLE – Anytown Small System, USA

General Management and Administration

Does your management and administration have or display any of the following:	Fully Yes	Partly Yes	Fully No	Not Sure	Notes and Explanation of Your Current Situation
Support for organization-wide continual improvement		X			New Board members not familiar with Water System needs.
Adoption of policies to confirm ownership and governance roles and responsibilities for legal and regulatory requirements for all aspects of operations.				X	Board composition appears to lack legal awareness.
Emergency preparation and response plan built to address emergencies, natural disasters, and/or other disruptions of service	X				Board composition fully trained in Homeland Security awareness and supportive of emergency preparedness.
Sufficient staff with appropriate skills, certifications, and licenses to manage and operate the system.		X			Recent retirements have resulted in large contingent of un-Certified Operations staff.

Financial Management

Does your system have or display any of the following?	Fully Yes	Partly Yes	Fully No	Not Sure	Notes and Explanation of Your Current Situation
Financial policies to ensure adequate rates, fees, and charges are properly collected.			X		Current water-rate structure has not been reviewed or updated in 9-years.
Revenues sufficient to cover costs of operations, debt service, and reserves		X			Board practices result in monthly transfers of Parks money to cover cost of Water System operation.



Part 3 of 4 – Top 3 Areas to Improve



Preliminary Assessment Summary: Top 3 Opportunities for Improvement

- Each system identifies its top three issues overall
- Each system reports out to the whole group on its top three
- Breakout groups to focus on one of the 5 Areas: General Mgt./Admin; Financial Management; Asset Management; Source Protection/Production; Distribution System.

Based on the answers to the questions in the *Preliminary Assessment*, please identify your top three areas for improvement AND explain why.

Area	Topic	Why
1		
2		
3		



Top Three

Strengths and Challenges

Strengths

List the top three things that you think you do WELL at your utility? Explain why.

Top Things	Why
1) Water quality sampling	Previous Operators have established sampling program and it is maintained today.
2) System maintenance practices that don't require spending money, aside from staff time.	System Budget does not accommodate funding to cover long-term maintenance tasks. More of a reactionary maintenance program.
3) Asset management.	Program was developed and implemented previously and continues today.

Challenges

List the top three things that you need to improve or address in the short-term (next 3 to 12 months).

Top challenges	Why
1) Funding to complete long-term maintenance projects to attempt and avoid reactionary maintenance.	Board does not recognize importance of fully funding water system. Focused on Recreational aspects of community.
2) Long-term planning	To identify impacts to water system should Developer construct subdivision as rumored.
3) Standby well reliability.	Two 1940-era wells have been identified as standby/emergency source. Integrity of wells is questionable.



Components of a Successful Application



Identification of Loan Eligible Project

- Using results of self-assessment, each group will identify 1 or 2 possible topics that might qualify for a loan.
- Evaluate each opportunity against the criteria in the table below.
- Groups will report findings and ideas to the whole group for demonstration and discussion.

Topic	
1) Problems and challenges to overcome	
2) Alternative solutions to solving the problem (list as many as three or four).	
3) Selection of an economical solution.	
4) Resources needed for success.	
5) Timeframe for completion.	



Identification of Loan Eligible Projects



Identification of Loan Eligible Project

- Using results of self-assessment, facilitator will identify 1 or 2 possible topics that might qualify for a loan.
- Participants will provide comment to worksheet that outlines topic, issues, and challenges to overcome; preliminary approach to solution; resources needed for success; timeframe for completion.
- Groups will report findings and ideas to the whole group for demonstration and discussion.

Topic	
1) Problems and challenges to overcome	1.) Implement project to reduce System Demand, including rehabilitating two 1940-era wells and make them available for service.
2) Alternative solutions to solving the problem (list as many as three or four).	1.) Implement Water Conservation Program to assist in reduced Demand, on a voluntary basis; 2.) Implement water rationing to lessen the need for additional water production; 3.) Conduct Rate Survey to identify appropriate rates for current water system operation; that would also provide funds for long-term Capital Construction Projects.
3) Selection of an economical solution.	1.) Conduct Water Conservation Program; 2.) Conduct Rate Survey to document need for rate increases now and into the future – being aware that less sales equals less revenue at the current rates; 3.) Identify funding needs for 1940-era well rehabilitation project.
4) Resources needed for success.	1.) Limited. Marketing fees for Program; 2.) Possibly funds to retain Consultant to review and develop Rate Study; 3.) Funds to initiate Well Rehab Project.
5) Timeframe for completion.	1.) Immediately; 2.) Before next high-Demand season; Initiate project before the end of next Fiscal Year.





From Assessment to Funding

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From Assessment to Funding

- Identify top areas for improvement
- Evaluate most critical area, especially one that needs financial assistance
- Assess if top project is “loan worthy”
- Evaluate eligibility (with dedicated Technical Assistance)
- Complete application



USDA Water & Waste Disposal Loan & Grant Program

Provides funding for:

- Clean and reliable drinking water systems
- Sanitary sewage disposal
- Sanitary solid waste disposal
- Storm water drainage



Who May Apply?

- State and local government entities
- Not for profit organizations (private or public)
- Federally recognized tribes

What is an eligible area?

- Incorporated communities with populations of LESS THAN 10,000
- Unincorporated areas – not just rural (no population threshold)
- Tribal lands in rural areas
- Colonies
- TARGETING population of 2,500 AND SMALLER

What kinds of funding are available?

- Long-term, low-interest loans
- Grants may be combined with loans (if funding is available) to help keep water/sewer rates at a reasonable level

How may the funds be used?

- Drinking water sourcing, treatment, storage, and distribution
- Sewer collection, conveyance, treatment, and disposal
- Priority is given to projects that address public health and compliance issues

How may the funds be used?

- Legal and engineering fees
- Land acquisition, water rights, permits, and equipment
- Start-up operations and maintenance
- Interest during construction
- Purchase of facilities to improve service or prevent loss of service
- Other costs to complete the project

Additional Information and Requirements

- Loan term and rate: Up to 40-year payback period OR useful life of the facilities financed with a fixed interest rate.
- Interest rate based on median household income for projected service area.
- Borrowers must both own and have legal authority to construct, operate, and maintain proposed services or facilities.
- All facilities must be used for a public purpose.
- Partnerships are encouraged.
- Projects must be financially sustainable.



Examples of Approved Projects

- Henderson Nina Water System (Louisiana)
 - New Well, New Filtration and Softener System, new water lines
- Holts Summit, Missouri
 - Regional pumping station, extend collection system to serve neighboring community
- Forest City, Missouri
 - New 50,000 gallon storage tank, 6 miles of new distribution mains
- Clarkesville, Georgia
 - Stabilize water reservoir embankment, renovate water treatment plant, new water booster station.



First: Get Registered on eAuth

- USDA eAuthentication system enables customers to obtain accounts that will allow them to access USDA Web applications and services via the Internet.
- USDA will only accept eAuthentication Accounts from individuals.
- Currently USDA eAuthentication does not have the mechanism to issue accounts to businesses, corporations or other entities.
- To apply for a USDA eAuthentication Account, please visit the Create an Account Page and contact your local USDA Rural Development office.

<https://www.eauth.usda.gov/mainPages/index.aspx>



Then: Apply with RD Apply

- RD Apply <https://rdapply.usda.gov>
- Convenience – RD Apply is available 24/7 through any internet-ready device.
- Control – Organizations control who can view and modify applications.
- Security – All information is safe and secure.
- Faster processing – The system reduces questions, ensures a complete application and better positions your organization for funding.



USDA State- Level Contacts

Name:
Title:
Phone:
Email:



Questions and Discussion



Let's
Wrap
Things
Up....
Before We
Close



Post Test



Closing Comments



Contact Information



Evaluation Form

What's Next After Today's Workshop?

- Loan applications
- Technical assistance
- Community Engineering Corps
- Partnership for Small Systems
- **AWWA will send to all eligible (<10,000 population) participants**
 - Small System Field Guide
 - M36 Manual
 - Self Assessment Worksheet
 - Small Systems Guidance Reference Book



Post-Test and Evaluation



Contact Information

Trainer Contact Information

AWWA

Phone:

Email:

Moderator Contact Information

AWWA

Phone:

Email:

USDA Contact Information

USDA Rural Development

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