



Lindell E. Ormsbee

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July 23, 2018

Ms. Gwen Pinson, Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602-0615

RECEIVED
AUG 07 2018
PUBLIC SERVICE
COMMISSION

Re: Application for approval of Workshop-in-a-Box Training of water district commissioners

Dear Ms. Pinson:

The Kentucky Water Resources Research Institute is planning to conduct a workshop at the Martin County Water District Offices in Inez, Kentucky on August 16, 2018 and the Tompkinsville, Water Utility in Tompkinsville on August 22, 2018. We are then planning a third regional workshop in eastern Kentucky to be scheduled for the later part of September. The "Sustainable Management of Rural and Small Systems Workshop" was developed by the US EPA and the USDA and focuses on ten key management areas for small drinking water and wastewater utilities. The workshop is being offered at no cost to the participants through financial support provided by USDA. A similar application (Case #2017-00234) was filed and approved by the PSC last year for the same workshop.

I apologize for the delay in submission of the application, however, I was erroneously under the impression that we had to have an approved copy of certification of the program by the KY Division of Compliance Assistance (which we filed early last month) before we could make application to the PSC. In speaking with Ben Bellamy of your staff, it is now my understanding that we just need to indicate that we have made said application. I am hoping that you will be willing to waive the normal 30 day period for an application in lieu of our misunderstanding. Any such consideration would be greatly appreciated.

We have enclosed the following materials in support of this application:

- 1) The name and address of the application (included in this transmittal letter).
- 2) The name and sponsor of the program and the subject matter covered by the program (included in this transmittal letter).
- 3) A summary of the content of the program (training summary/timed agendas for both workshops are attached)
- 4) The number of credit hours requested by the program: 5.5 hours
- 5) The name and relevant qualifications and credentials of each instructor presenting the program: Dr. Lindell Ormsbee (P.E., PhD), Steve Evans, and Greg Heitzman (P.E, MBA) bio-sketches attached.
- 6) A copy of written materials given to water commissioners attending the program (class Powerpoint slides are attached for the Martin County training. The slides for the Tompkinsville training and the regional training will have the same content).

7) A copy of certification of the program for 5.5 hours by the KY Division of Compliance Assistance, Certification and Licensing Branch for water and wastewater operators (an application for certification was submitted prior to their July meeting, but unfortunately approval was delayed until the August meeting which will not occur until after the scheduled workshops).

We respectfully request that the training also be approved for 5.5 hours of continuing education credits as management training for commissioners of water districts, combined water, gas or sewer districts, or water commissioners as referenced in 807 KAR 5:070.

Thank you for your consideration in this matter. If you have any questions, please do not hesitate to contact me.

Sincerely

A handwritten signature in blue ink, appearing to read 'L. Ormsbee', with a long horizontal flourish extending to the right.

Lindell E. Ormsbee, P.E., P.H., Ph.D, D.WRE, F.ASCE, F.EWRI
Director of the Kentucky Water Resources Research Institute
Director of the Kentucky Center of Excellence for Watershed Management
Associate Director of the UK NIEHS Superfund Research Program
Raymond-Blythe Professor of Civil Engineering
(859)-257-6329

SUSTAINABLE MANAGEMENT OF RURAL AND SMALL SYSTEMS WORKSHOP AGENDA

August, 16, 2018

Martin County Water District

10:30 am – 5:00 pm

FACILITATOR(S): Lindell Ormsbee, Professor, University of Kentucky, Department of Civil Engineering

SPEAKER: Greg Heitzman, BlueWater Kentucky

Time	Session
10:30	Introductions and Workshop Objectives (20 minutes)
10:50	Session 1: Overview of Key Management Areas – Presentation (30 minutes) <ul style="list-style-type: none">• Presentation of Key Management Areas• Group Discussion
11:20	Session 2: Utility ‘Self Assessment’ Exercise (40 minutes) <ul style="list-style-type: none">• Explain “Sustainable Management Self Assessment” (5 minutes)• Participants Conduct Self Assessment (20 minutes)• Explain Plotting of Results: achievements vs. priorities (5 minutes)• Participants Plot Results (10 minutes)
12:00	Lunch
1:00	Session 3: Discuss Self Assessment Results (50 minutes) <ul style="list-style-type: none">• What are your areas of focus (the orange and red areas)?• Why are they an area of focus?• What are the commonalities and differences among table participants’ achievements, priorities, and challenges?• What lessons can you learn from the other participants that you could use to improve your performance?• How were the perspective on these priorities different for an:<ul style="list-style-type: none">▪ Operator▪ Manager▪ Board Member▪ Judge Executive

- 1:50** **Session 4: Improving Outcomes (60 minutes)**
- Tips from previous Improving Outcomes Exercises (30 minutes)
 - Each participant completes an improvement worksheet for one low achievement/high priority management area (20 minutes)
 - Discussion Questions:
 - What would be some **examples** of high achievement in this management area?
 - What are some potential **challenges** for the utility attaining high achievement in this area?
 - What **changes** would the utility need to make to improve performance in this area?
 - What will be the biggest **barriers** to making these changes?
 - Group Discussion (20 minutes)
- 2:50** **Break (10 minutes)**
- 3:00** **Session 5: Creating an Action Plan (60 minutes)**
- Discuss Utility Management Improvement Plan
 - Complete a Sustainable Management Action Plan Worksheet
- 4:00** **Session 6: Tools, Guides and Other Resources (60 minutes)**
- Presentation of Additional Tools, Guides and Other Resources
 - Next Steps (20 minutes)
- 5:00** **Adjourn**

SUSTAINABLE MANAGEMENT OF RURAL AND SMALL SYSTEMS WORKSHOP AGENDA

August 22, 2018

Tompkinsville Water Utility

9:00 am – 3:30 pm

SPEAKERS: Lindell Ormsbee, Professor, University of Kentucky, Department of Civil Engineering; Steven Evans, Kentucky Water Resources Research Institute

Time	Session
9:00	Introductions and Workshop Objectives (20 minutes)
9:20	Session 1: Overview of Key Management Areas – Presentation (30 minutes) <ul style="list-style-type: none">• Presentation of Key Management Areas• Group Discussion
9:50	Session 2: Utility ‘Self Assessment’ Exercise (40 minutes) <ul style="list-style-type: none">• Explain “Sustainable Management Self Assessment” (5 minutes)• Participants Conduct Self Assessment (20 minutes)• Explain Plotting of Results: achievements vs. priorities (5 minutes)• Participants Plot Results (10 minutes)
10:30	Break (10 minutes)
10:40	Session 3: Discuss Self Assessment Results (50 minutes) <ul style="list-style-type: none">• What are your areas of focus (the orange and red areas)?• Why are they an area of focus?• What are the commonalities and differences among table participants’ achievements, priorities, and challenges?• What lessons can you learn from the other participants that you could use to improve your performance?• How were the perspective on these priorities different for an:<ul style="list-style-type: none">▪ Operator▪ Manager▪ Board Member▪ Judge Executive

- 11:30 Working Lunch (50 minutes) Prioritization of Management Areas**
- 12:20 Session 4: Improving Outcomes (60 minutes)**
- Tips from previous Improving Outcomes Exercises (30 minutes)
 - Each participant completes an improvement worksheet for one low achievement/high priority management area (20 minutes)
 - Discussion Questions:
 - What would be some **examples** of high achievement in this management area?
 - What are some potential **challenges** for the utility attaining high achievement in this area?
 - What **changes** would the utility need to make to improve performance in this area?
 - What will be the biggest **barriers** to making these changes?
 - Group Discussion (20 minutes)
- 1:20 Break (10 minutes)**
- 1:30 Session 5: Creating an Action Plan (60 minutes)**
- Discuss Utility Management Improvement Plan
 - Complete a Sustainable Management Action Plan Worksheet
- 2:30 Session 6: Tools, Guides and Other Resources (60 minutes)**
- Presentation of Additional Tools, Guides and Other Resources
 - Next Steps (20 minutes)
- 3:30 Adjourn**

Lindell Ormsbee, P.E., P.H., Ph.D, D.WRE, F.ASCE
Kentucky Water Resources Research Institute (KWRI), Director
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Director, Kentucky Water Resources Research Institute
Director, Research Translation Core, University of Kentucky Superfund Research Center
Director, Kentucky Center of Excellence for Watershed Management
Associate Director, University of Kentucky Superfund Research Center
Raymond-Blythe Professor of Civil Engineering

Education

Ph.D. Purdue University, 1983
M.S. Virginia Polytechnic Institute and State University, 1979
B.S.C.E. University of Kentucky, 1978

Professional Registration

Professional Engineer, State of Kentucky
Professional Hydrologist, American Institute of Hydrology
Diplomate, American Academy of Water Resource Engineers

Professional Employment

2010 - Present: Director, Kentucky Center of Excellence for Watershed Management
2009 - Present: Associate Director, University of Kentucky Superfund Research Center
2005 - Present: Director, Research Translation Core, UK Superfund Research Center
2004 - Present: Director, Kentucky Water 2004 Present Resources Research Institute
2003 - Present: Raymond Blythe Professor of Civil Engineering
2003 - 2009: Director, Kentucky Research Consortium for Energy and the Environment
2000 - 2006: Director, Eastern Kentucky PRIDE Water Quality Assessment Program
2000 - 2003: Associate Director, Kentucky Water Resources Research Institute
2000 - 2002: Interim Director, Tracy Fanner Center for Environment
1999 - Present: Kentucky River Basin Coordinator
1998 - 1999: Acting Director, Kentucky Water Resources Research Institute
1997: Visiting Researcher Kentucky Environmental Protection Agency
1995 - 1998: Associate Director, Kentucky Water Resources Research Institute.
1996 - 2003: Professor of Civil Engineering, University of Kentucky
1989 - 1996: Associate Professor of Civil Engineering, University of Kentucky
1983 - 1989: Assistant Professor of Civil Engineering, University of Kentucky
1979 - 1981: Project Engineer, Howard K. Bell Consulting Engineers, Lexington, KY

Research Interest and Expertise

Dr. Ormsbee is the Raymond-Blythe Professor of civil engineering at the University of Kentucky. Since joining the faculty of the University of Kentucky in 1983, Dr. Ormsbee has been actively engaged in research, teaching, and consulting in water resources and environmental engineering and has published more than 250 technical papers and reports on various topics in this field. In addition to serving on numerous international, national, and state committees, Dr. Ormsbee has spoken to hundreds of audiences at various technical conferences and other meetings across the United States as well as overseas.

Dr. Ormsbee currently serves as the director of the Kentucky Water Research Institute, the Kentucky Center of Excellence for Watershed Management as well as the associate director of the UK Superfund Research Center. In the past he has served in several other research administrative capacities including, Director of the Kentucky Research Consortium for Energy and Environment (03-09), Director of the Tracy Farmer Center for the Environment (02-03), Director of the UK-PRIDE Water Quality Assessment Program (00-06), the Chair of the Kentucky Environmental Quality Commission (04-06), and the Chair of the Scientific Advisory Board of the Kentucky Watershed Watch Program (04-09). From 1985 to 1998 he served in various capacities in the Kentucky Section of the American Society of Civil Engineering, culminating as president in 1998. In 2003 he served as Chair of the EWRI-ASCE Council on Emerging and Innovative Technologies and in 2004 he was elected Vice-President of the American Institute of Hydrology. In 2008, Dr. Ormsbee served on a BOSC technical review committee for the EPA Homeland Security Program.

Dr. Ormsbee's current research efforts are directed toward the application of systems analysis methods to complex problems in water resources and environmental systems. Over the last 30 years, Dr. Ormsbee has directly managed (as either a PI or Co-PI) over 21 million dollars in external contracts from such agencies as the National Science Foundation, the U.S. Geological Survey, the U.S. Army Corp of Engineers, the U.S. Department of Energy, the National Institutes of Environmental Health Sciences, the U.S. Environmental Protection Agency, and the US Department of Homeland Security. He has also served on several multidisciplinary research teams that have brought in an additional 29 million dollars in external research funding.

Professional Service Activities

1998 - Present: Director, Watershed Management Program, Kentucky River Authority
1998 - Present: Scientific Advisor, Kentucky River Watershed Watch
2003 - 2007: Chair, Kentucky Environmental Quality Commission
2004 - 2006: Chair, Scientific Advisory Board, Inter-basin Coordinating Committee, Kentucky Watershed Watch
2004 - 2005: Member, Governor's Task Force on Blackwater Issues
2004: Vice President for Academic Affairs, American Institute of Hydrology
2003 - 2004: Chair, EWRI Emerging and Innovative Technologies Council
2002: Chair, Nuclear Subcommittee, Governor's Energy Policy Board
1997 - 1998: President, Kentucky Section of ASCE
1995: Chair, AWWA International Computer Conference.
1991 - 1992: President, Bluegrass Chapter of Kentucky Section of ASCE

Greg Heitzman, P.E., MBA

Greg Heitzman is President of BlueWater Kentucky, a management consulting firm serving the water and wastewater industry. From 2011 to 2015, he served as Executive Director/CEO of the Louisville Metropolitan Sewer District (MSD). Prior to MSD, he worked 31 years with the Louisville Water Company serving as Chief Engineer from 1991 to 2007 and President/CEO from 2007 to 2013.

In his executive roles for Louisville MSD and Louisville Water, Greg provided leadership for Mayor Fischer's One Water Partnership to consolidate water services and administrative functions of Louisville MSD and Louisville Water. Greg also led strategic initiatives to expand water and wastewater services in the region, develop high performance teams, establish model programs for corporate controls (policy, procedures and work instructions), and develop new lines of business and technology to enhance revenue and reduce costs.

Greg obtained his Bachelor and Master's degrees in Civil Engineering from the University of Kentucky and an MBA from the University of Louisville. He is a licensed Professional Engineer in Kentucky and recipient of AWWA George Warren Fuller Award. He is an active member in both AWWA and the Water Environment Federation/Association. He currently serves on the following industry and community Boards: Water Research Foundation; Water Information Sharing and Analysis Center (Water ISAC); Louisville Water Foundation; Better Business Bureau; and Tree Louisville Commission.



Steven J. Evans, Assistant Director

Kentucky Water Resources Research Institute
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University of Kentucky, Lexington, KY 40506-0107

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Fax: 859-323-1049
Email: steve.evans@uky.edu

EDUCATION

M.A. (Education), Georgetown College, 2004
B.S. (Biology), University of Kentucky, 2001

PROFESSIONAL EMPLOYMENT

2017 – Present: Assistant Director, Kentucky Water Resources Research Institute, Lexington, KY.
2010 – 2017: Project Manager, Third Rock Consultants, Lexington, KY.
2006 – 2017: Environmental Scientist, Third Rock Consultants, Lexington, KY.
2005 – 2006: Lab Director and Quality Assurance Director, EnviroData Group, Lexington, KY.
2005 – 2006: Lab Director and Quality Assurance Director, EnviroData Group, Lexington, KY.
2004 – 2005: Biology and Inorganic Chemistry Laboratory Section Manager, EnviroData Group, Lexington, KY.
2002 – 2004: Lab Technician, EnviroData Group, Lexington, KY.

RESEARCH INTERESTS

Watershed management and planning, water quality monitoring and analysis, stormwater management with emphasis on illicit discharge detection and identification and public involvement and low impact development, stakeholder involvement and education, geospatial mapping and analysis, and environmental permitting.

PROFESSIONAL SERVICE ACTIVITIES

2017-Present: Interagency Technical Advisory Committee on Groundwater, Chair
2017-Present: Watershed Water of Kentucky, Science Advisor
2017-Present: Kentucky River Watershed Water, Board Member

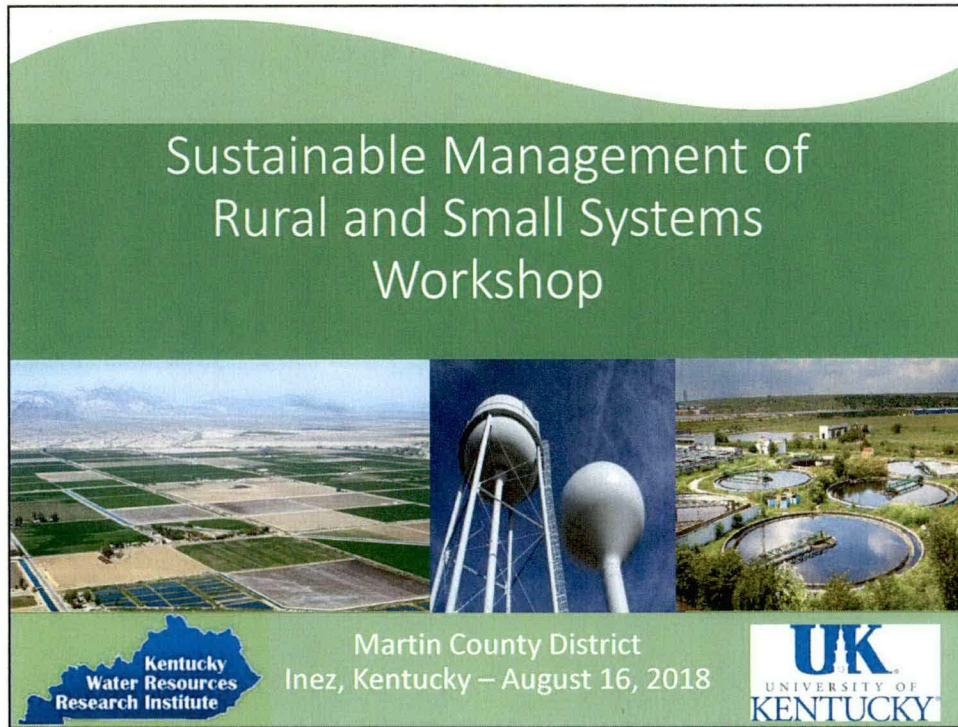
PROFESSIONAL MEMBERSHIPS

Kentucky Stormwater Association
Kentucky Academy of Science

PUBLICATIONS/PRESENTATIONS

1. McAlister, M and S.J. Evans. 2017. "Kentucky River Watershed Watch: Summary of 2017 Sampling Results." Report produced by Kentucky Water Resources Research Institute. Funded by Kentucky River Authority.
2. Ormsbee, L; S.J. Evans, and K. Peterson. 2017. "Watershed Supply Report: Beam-Suntory, Loretto, KY." Kentucky Water Resources Research Institute. Project Report for Beam-Suntory Maker's Mark Facility.
3. Ormsbee, L; S.J. Evans, and L. Pacholik. 2017. "Watershed Sustainability Report: Beam-Suntory, Clermont, KY." Kentucky Water Resources Research Institute. Project Report for Beam-Suntory Jim Beam Facility.
4. Evans, S. J. and J. Shelby. 2017. "Combined Water Quality / Quality Assurance Project Report for Cane Run Comprehensive Watershed Based Plan." Third Rock Consultants. Project Technical Report for Kentucky Division of Water.
5. Evans, S. J.; J. Carey; D. Price; R. Walker; K. Miller; R. Lamey; L. Hicks; A. Rains. 2017. "Quality Assurance Project Plan: Lexington-Fayette Urban County Government Municipal

- Separate Storm Sewer System (MS4) Monitoring Plan.” Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality. Revision 2.
6. Evans, S. J.; J. Carey; D. Price; R. Walker; R. Lamey; L. Hicks; A. Rains. 2017. “Quality Assurance Project Plan: Lexington-Fayette Urban County Government Watershed-Focused Monitoring Plan.” Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality. Revision 2.
 7. Olson, W.C. and S.J. Evans. 2016. “Severe Erosion Survey: Cane Run Watershed, Fayette and Scott County Kentucky.” Third Rock Consultants. Project Technical Report for Kentucky Division of Water.
 8. Evans, S. J. and J. Shelby. 2016. Technical Memorandum on Illicit Discharge Detection and Elimination Chemical Fingerprint Library. Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality.
 9. Evans, S.J. et al. 2016. “Chestnut Creek Watershed Based Plan, Marshall County, KY.” Third Rock Consultants. Project Report for Friends of Clarks River National Wildlife Refuge. US EPA Section 319(h) Grant No. C999486-1-12.
 10. Evans, S.J. and W.C. Olson. 2015. “Lexington-Fayette Urban County Government 2014 Annual Monitoring Report, Lexington, Kentucky.” Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality.
 11. Olson, W.C. and S.J. Evans. 2014. “North Elkhorn Creek Watershed Assessment, Lexington, Kentucky.” Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality.
 12. Olson, W.C. and S.J. Evans. 2014. “South Elkhorn Creek Watershed Assessment, Lexington, Kentucky.” Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality.
 13. Evans, S.J. and J. Shelby. 2014. “Visual Stream Assessment: West Hickman Watershed, Lexington, Kentucky.” Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality.
 14. Evans, S. J., 2013, Watershed Based Planning in the Urban Wolf Run Watershed, Kentucky Water Resources Symposium, March 18, 2013, University of Kentucky, Lexington, Kentucky.
 15. Evans, S.J.; W.C. Olson; J. Shelby; S. Bush; B. Stone; and K. Cooke. 2013. “Wolf Run Watershed Based Plan, Lexington, KY.” Third Rock Consultants. Project report for Lexington-Fayette Urban County Government. US EPA Section 319(h) Grant No. C9994861-09.
 16. Evans, S. J.; Farrell, S.; and Kimball, D.R., 2013, Results of a Data Evaluation to Establish Priority Remediation Areas for Dry Weather Fecal Contamination in a Karst Influenced Watershed, Kentucky Water Resources Symposium, March 19, 2012, University of Kentucky, Lexington, Kentucky.
 17. Evans, S. J.; Farrell, S.; and Kimball, D.R., 2013, Results of a Data Evaluation to Establish Priority Remediation Areas for Dry Weather Fecal Contamination in a Karst Influenced Watershed, Tennessee Section American Water Resources Association Symposia, April 11-13, 2012, Burns, Tennessee.
 18. Evans, S.J. and W.C. Olson. 2013. “Visual Stream Assessment: South Elkhorn Watershed, Lexington, Kentucky.” Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality.
 19. Evans, S.J. and W.C. Olson. 2013. “Visual Stream Assessment: Town Branch Watershed, Lexington, Kentucky.” Third Rock Consultants. Prepared for Lexington-Fayette Urban County Government Division of Water Quality.
 20. Farrell, S and S.J. Evans. 2012. “West Hickman Microbial Source Tracking Dry Weather Assessment of Pathogen Sources for Sanitary Sewer Priority Areas.” Third Rock Consultants. Project Report for Tetra Tech, Inc and Lexington-Fayette Urban County Government Division of Water Quality.



Sustainable Management of
Rural and Small Systems
Workshop

Martin County District
Inez, Kentucky – August 16, 2018

Kentucky
Water Resources
Research Institute

UK
UNIVERSITY OF
KENTUCKY

The slide features a green header with the title. Below the title is a horizontal strip of three images: an aerial view of agricultural fields, a water tower, and a wastewater treatment plant. At the bottom, there are logos for the Kentucky Water Resources Research Institute and the University of Kentucky, along with the event location and date.



Welcome and Introductions
Moderator: Lindell Ormsbee

- Welcome
- Purpose of Workshop
- Introduction of Team Members
- Participant Introductions – Name, Community, Role
- Workshop Materials
- Meeting Logistics
- Meeting Agenda

10:30 AM

2

The slide has a green header with the title and moderator's name. The main content is a bulleted list of agenda items. At the bottom left, the time is 10:30 AM, and at the bottom right, there is a small green square containing the number 2.

Management Process

- Phase I
 - Regional workshops
 - Explain 10 basic management areas
 - Perform general utility assessments
 - Identify possible goals and strategies
- Phase II
 - Individual utility workshops
 - Involve operators, managers, and decision makers
 - Develop feasible goals and strategies
 - Provide technical resources to help support implementation

3

Workshop Participants

- This workshop will focus on management issues but will likely involve a range of participants:
 - Operators
 - Managers
 - Decision makers
 - City Officials
 - Mayors
 - City council members
 - Utility board members
 - County Officials
 - Judges
 - Members of the fiscal court

4

Schedule of Activities

Introduce Key Management Areas
Perform Self Assessment Exercise
Lunch
Discuss Tips for Improving Outcomes
Improving Outcomes Exercise
Creating an Action Plan Exercise
Tools, Guides and other Resources
Next Steps

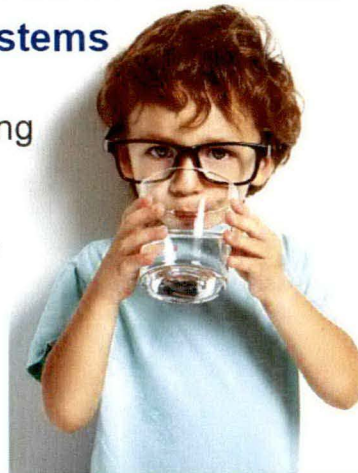
5

Public Expectations

Public Water Systems

Provide **safe** drinking water at most **appropriate cost**

- ✓ **Water Quality**
- ✓ **Reliability**
- ✓ **Affordability**



6

Common Challenges for Utilities

- Aging infrastructure that needs more intensive repair and replacement.
- Continuing regulatory changes, including the need to often balance priorities among multiple compliance endpoints.
- Workforce challenges, including an aging workforce and difficulties in recruiting and retaining qualified staff.
- Uncertainties about future funding opportunities.
- Competing local priorities and a dwindling resource base in many small communities.
- Uninformed or disengaged board members.

7

Key Utility Personnel

- The effective management of a water utility will require the active participation of a range of individuals:
 - Customers
 - Operators
 - Managers
 - Decision makers
 - City Officials
 - Mayors
 - City council members
 - Utility board members
 - County Officials
 - Judges
 - Members of the fiscal court



8

Water Utility Management Involves A Range of Issues

Managerial

Clear Roles, Effective Policies, Thorough Planning

Financial

Budgeting, Accounting, Planning, Internal Controls

Technical

Infrastructure, Source, Standards, Rights, Operators

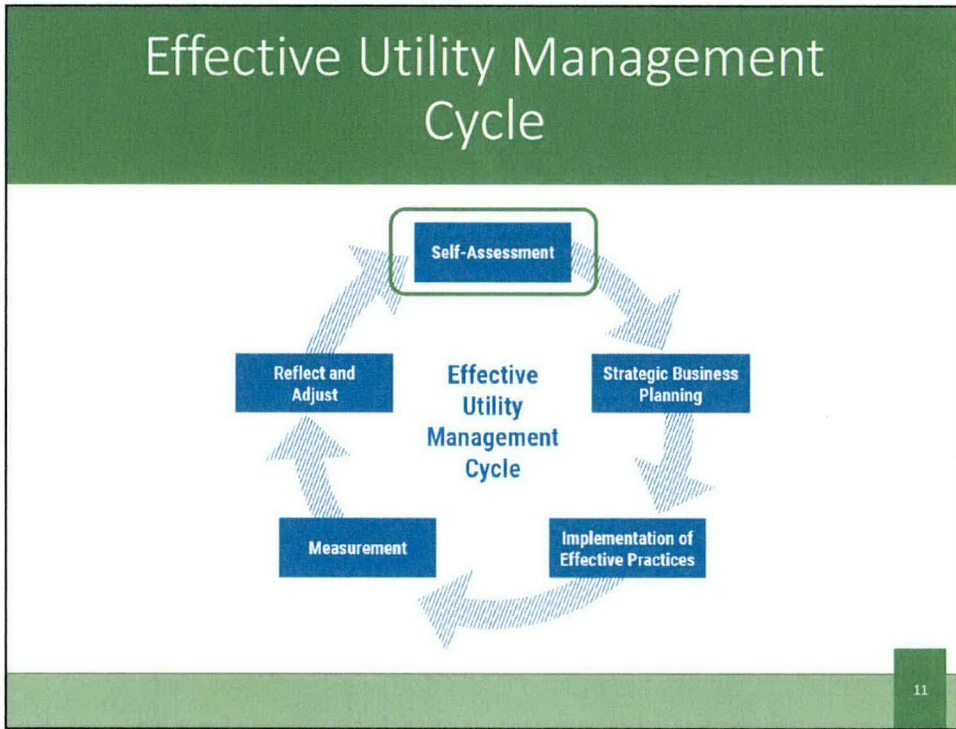
9

Keys To Management Success

- Leadership
- Strategic Business Planning
- Knowledge Management
- Measurement
- Continual Improvement Management



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10:50

Overview of the Ten Key Management Areas

Outcomes that well-managed utilities strive for

The collage consists of three distinct images. On the left is an aerial photograph of a vast, flat landscape with a grid-like pattern of fields or industrial plots. In the center is a close-up shot of a white water tower against a blue sky. On the right is a photograph of a wastewater treatment plant, showing several large, circular aeration tanks and surrounding infrastructure.

The Ten Key Management Areas

- | | | | |
|---|--|---|---|
|  | 1. Water Resource Adequacy |  | 6. Financial Viability |
|  | 2. Product Quality |  | 7. Operational Optimization – Energy and Water Efficiency |
|  | 3. Customer Satisfaction |  | 8. Infrastructure Stability |
|  | 4. Community Sustainability & Economic Development |  | 9. Operational Resiliency |
|  | 5. Employee and Leadership Development |  | 10. Stakeholder Understanding and Support |

9:20 AM

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The Well-Managed Utility

- Ten Management Areas are framed as outcomes.
- They serve as building blocks for utility performance improvement:
 - Where to focus.
 - What to strive for.
- Most water and wastewater utilities pay attention to each of these areas and likely perform well in at least some of them.
- They can be used to fit into, draw on, and support asset management, long-term business planning, continual improvement management systems.

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1. Water Resource/Capacity Adequacy



- Ensures water availability consistent with current and future customer needs through:
 - Long-term resource supply and demand analysis
 - Conservation
 - Public education
- Understands the utility role in water availability.
- Manages operations to provide for long-term aquifer and surface water sustainability and replenishment.

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2. Product Quality



- Produces **potable water** or treated effluent, along with process residuals that are:
 - In full compliance with regulatory and reliability requirements.
 - Consistent with customer, public health, and ecological needs.
 - Supportive of local economic development and business needs and opportunities.

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3. Customer Satisfaction



- Helps customers understand the value of water and their local utility.
- Knows what their customers expect in terms of service, water quality, and rates.
- Has developed a way to gather feedback from their customers, review the feedback, and then act on it.
- Sets goals to meet these expectations.
- Is able to respond to emergency conditions in a timely and efficient manner.

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4. Community Sustainability & Economic Development



- Is actively engaged in the local community.
 - Is aware of or actively engaged in discussions of community and economic development
 - Is aware of local business needs and opportunities for new residential or business customers
- Aligns Utility goals to be attentive to the impacts that utility decisions will have on current and future community and watershed health.
- Aligns Utility goals to promote community economic vitality and overall improvement.

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5. Employee & Leadership Development



- Recruits and retains a workforce that is competent, motivated, adaptive, and is concerned about safety.
- Establishes a participatory, collaborative organization.
- Ensures employee institutional knowledge is retained and improved on over time.
- Creates opportunities for professional and leadership development.

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6. Financial Viability



- Understands the full life-cycle costs of the utility and establishes and maintains an effective balance between:
 - Long term debt
 - Asset values
 - Operations and maintenance expenditures
 - Operating revenues
- Establishes predictable rates consistent with community expectations and acceptability – adequate to:
 - Recover costs.
 - Provide for reserves.
 - Address maintenance needs.
 - Plan and invest for future needs.
 - Maintain support from bond rating agencies

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7. Operational Optimization



- Understands the operational performance factors (e.g., reliability of service, **pressure**, DBPs, **overflows**).
- Ensure ongoing, timely, cost-effective, and reliable performance improvements in all facets of operations (i.e., continual improvement culture).
- Minimize resource use, loss, and impacts from day-to-day operations (e.g., energy and chemical use, water loss).
- Maintain awareness of information and operational technology developments to anticipate and support timely adoption of improvements.

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8. Infrastructure Stability



- Understands the **condition** and **cost** of each system component.
- Plans for system component repair, replacement, and enhancement over the long-term at the lowest possible cost.
- Coordinates asset repair, rehabilitation, and replacement within the community to minimize disruptions and other negative consequences.

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9. Operational Resiliency



- Ensures utility leadership and staff work together to anticipate and avoid problems.
- Identifies threats to the system (legal, financial, non-compliance, environmental, safety, security, and natural disaster) by conducting all hazards vulnerability assessment.
- Establishes **acceptable** risk levels that support system reliability goals.
- Identifies how to manage risks and how to implement appropriate response actions by developing and using an all-hazards emergency response plan.

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10. Stakeholder Understanding & Support



- Actively involves stakeholders in the decisions that will affect them:
 - By providing for a structure or protocol to engage stakeholders
 - By seeking to understand stakeholder needs and interests
 - By promoting the value of clean and safe water
- Creates understanding and support from oversight bodies, community and **watershed interests**, and regulatory bodies:
 - Service levels
 - Rate structures
 - Operating budgets
 - Capital improvement programs
 - Risk management decisions

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11:20

The Self-Assessment Exercise

Time to go to work!



Getting Started (Tab 2)

- Step 1: RATE your system's level of achievement (practice and performance) for each management area
- Step 2: RANK the importance of each area
- Step 3: PLOT the results
- Step 4: Identify area of focus

Rating (Achievement)	Good			
	Fair			
	Poor			
		Low	Medium	High
		Ranking (Priority)		

Key Management Area	Management Area Description	Step 1: Rate (Practice/Performance)	Step 2: Rank (Importance)
1. Financial Health & Risk	• Is the utility a safe and sound financial institution? (1-5) • Is the utility's financial health strong enough to support the utility's long-term goals? • Is the utility's financial health strong enough to support the utility's long-term goals? • Is the utility's financial health strong enough to support the utility's long-term goals?		
2. Customer Satisfaction	• How satisfied are customers with the utility's service? • How satisfied are customers with the utility's service? • How satisfied are customers with the utility's service?		
3. Environmental Stewardship	• How does the utility manage its environmental risks? • How does the utility manage its environmental risks? • How does the utility manage its environmental risks?		
4. Regulatory Compliance	• How does the utility manage its regulatory risks? • How does the utility manage its regulatory risks? • How does the utility manage its regulatory risks?		
5. Operational Reliability	• How reliable is the utility's service? • How reliable is the utility's service? • How reliable is the utility's service?		
6. Leadership & Innovation	• How does the utility manage its leadership and innovation? • How does the utility manage its leadership and innovation? • How does the utility manage its leadership and innovation?		

STEPS 1 & 2: Rating Achievement and Ranking Priority

Self-Assessment Demonstration

- Use the table to rate your utility's **achievement (first blank column)** rate in the 10 key management areas: P – poor, F – fair, G – good.
- Use the table to rate the **priority (second blank column)** of each the 10 key management areas for your utility: L – low, M – medium, H – high.

Key Management Area	Management Area Description	Step 1: Rate Achievement (Poor – Good)	Step 2: Rank Priority (Low – High)
1. Water Resource Adequacy (e.g., water quantity)	<ul style="list-style-type: none"> My system is able to meet the water or sanitation needs of its customers now and for the reasonable future. My utility or community has performed a long-term water supply and demand analysis. (Applies to drinking water systems only.) My system understands its relationship to local water availability. (Drinking water utilities should focus on allocation rules relative to any local water stress conditions; wastewater utilities should focus on return flows.) 		
2. Product Quality (e.g., clean & safe water)	<ul style="list-style-type: none"> My system is in compliance with permit requirements and other regulatory or reliability requirements. My utility meets local community expectations for the potable water and/or treated effluent and process residual that it produces. 		
3. Customer Satisfaction	<ul style="list-style-type: none"> Customers are satisfied with the services my system provides. My system has procedures in place to receive and respond to customer feedback in a timely fashion. 		
4. Community Sustainability & Economic Development	<ul style="list-style-type: none"> My utility is aware of and participating in local and regional community and economic development planning activities. My utility's goals also help to support current selected and future water production and community economic goals. 		
5. Employee & Leadership Development	<ul style="list-style-type: none"> Training programs are in place to retain and improve institutional knowledge. Opportunities exist for employee skills development and career enhancement. Job descriptions, performance expectations, and codes of conduct are established. 		
6. Financial Viability	<ul style="list-style-type: none"> The rates that my utility charges are adequate to pay for bills and cover costs (such as for labor and material, repair and replace, and equipment and infrastructure) or needed (C&I, debt servicing, and other) costs are covered. My utility maintains close relationships with our customers, board members, and other key stakeholders. 		
7. Operational Optimization (energy/water efficiency)	<ul style="list-style-type: none"> My utility has achieved its water energy usage and performed an energy audit. My utility has operational measures and and monitor loss (e.g., water, gas, treatment chemical use). My utility understands, has documented, and monitors key operational aspects of the system (i.e., pressure, flow, quality). 		
8. Infrastructure Reliability (e.g., asset management)	<ul style="list-style-type: none"> My utility has maintained its current system components, condition, and cost. My system has a plan in place for repair and replacement of system components. 		
9. Operational Resilience	<ul style="list-style-type: none"> My utility has conducted all of its critical vulnerability assessment (safety, natural disasters, environmental risk, etc.). My utility has engaged all of its key emergency response agencies. 		
10. Customer Relationship & Support	<ul style="list-style-type: none"> My system actively engages with local decision makers, community members, and regulatory organizations to build support for its goals, resources, and the value of the services it provides. My utility performs actual customer and stakeholder outreach and responds to external concerns and promotes the value of clean and safe water. 		

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STEPS 1 & 2: Rating Achievement and Ranking Priority

Self-Assessment Demonstration

- Take each management area one at a time:
- 1) Review the definition of the management area.
 - 2) Rate the achievement level of the area.
 - 3) Rate the priority level of the area.

Key Management Area	Management Area Description	Step 1: Rate Achievement (Poor – Good)	Step 2: Rank Priority (Low – High)
1. Water Resource Adequacy (e.g., water quantity)	<ul style="list-style-type: none"> My system is able to meet the water or sanitation needs of its customers now and for the reasonable future. My utility or community has performed a long-term water supply and demand analysis. (Applies to drinking water systems only.) My system understands its relationship to local water availability. (Drinking water utilities should focus on allocation rules relative to any local water stress conditions; wastewater utilities should focus on return flows.) 	Poor	High
2. Product Quality (e.g., clean & safe water)	<ul style="list-style-type: none"> My system is in compliance with permit requirements and other regulatory or reliability requirements. My utility meets local community expectations for the potable water and/or treated effluent and process residual that it produces. 	Fair	High
3. Customer Satisfaction	<ul style="list-style-type: none"> Customers are satisfied with the services my system provides. My system has procedures in place to receive and respond to customer feedback in a timely fashion. 	Good	Medium
4. Community Sustainability & Economic Development	<ul style="list-style-type: none"> My utility is aware of and participating in local and regional community and economic development planning activities. My utility's goals also help to support current selected and future water production and community economic goals. 	Poor	Low
5. Employee & Leadership Development	<ul style="list-style-type: none"> Training programs are in place to retain and improve institutional knowledge. Opportunities exist for employee skills development and career enhancement. Job descriptions, performance expectations, and codes of conduct are established. 	Good	Medium

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STEP 1: Rating Achievement

Scale from LOW to HIGH achievement

- Select **Poor** if your system has no workable practices in place for addressing this area – very low capacity and performance.
- Select **Fair** if your system has some workable practices in place with moderate achievement, but could improve – some capacity in place.
- Select **Good** if your system has effective, standardized, and accepted practices in place. It either usually or consistently achieves goals – capacity is high and in need of very little or no further development.

1. Water Resource Adequacy (e.g., water quantity)	<ul style="list-style-type: none"> • My system is able to meet the water or sanitation needs of its customers now and for the reasonable future. • My utility or community has performed a long-term water supply and demand analysis. (Applies to drinking water systems only.) • My system understands its relationship to local water availability. (Drinking water utilities should focus on utilization rates relative to any local water stress conditions, wastewater utilities should focus on return flows.)
2. Product Quality (e.g., clean & safe water)	<ul style="list-style-type: none"> • My system is in compliance with performance standards, regulations, or reliability requirements. • My utility meets local community expectations for the potable water and/or treated effluent and process residual that it produces.
3. Customer Satisfaction	<ul style="list-style-type: none"> • Customers are satisfied with the services my system provides. • My system has procedures in place to receive and respond to customer feedback in a timely fashion.
4. Community Sustainability & Economic Development	<ul style="list-style-type: none"> • My utility is aware of and participating in local and regional community and economic development planning activities. • My utility's goals also help to support overall watershed and source water protection, and community economic goals.
5. Employee & Leadership Development	<ul style="list-style-type: none"> • Training programs are in place to retain and improve institutional knowledge. • Opportunities exist for employee skills development and career advancement. • Job descriptions, performance expectations, and codes of conduct are established.
6. Financial Viability	<ul style="list-style-type: none"> • The rates that my utility charges are adequate to pay our bills, put some funds away for the future, and maintain, repair, and replace our equipment and infrastructure as needed. (O&M, debt servicing, and other costs are covered). • My utility discusses rate requirements with our customers, board members, and other key stakeholders.
7. Operational Optimization (energy/water efficiency)	<ul style="list-style-type: none"> • My utility has assessed its current energy usage and performed an energy audit. • My utility has maximized resource use and resource loss (e.g., water loss, treatment chemical use). • My utility understands, has documented, and monitors key operational aspects of the system (e.g., pressure, flow, quality).

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STEP 2: Ranking Priority

Scale from LOW to HIGH priority



- Review each of the five prioritization elements:
 1. Crisis situations / urgency (near term or long term)
 2. Current or expected challenges
 3. Consequence severity (non-compliance, costs, health, safety)
 4. Customer impacts (water quality, reliability of service)
 5. Community priorities (economic development, quality of life)
- Select **High** if concerns for most elements (4-5) or a strong concern in several
- Select **Medium** if concerns for some elements (2-3) or a strong concern for one
- Select **Low** if concerns for few or none of the elements (0-1) and no strong concerns

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STEPS 1 & 2: Rating Achievement and Ranking Priority

Self-Assessment Demonstration

Take each management area one at a time:

- 1) Review the definition of the management area.
- 2) Rate the achievement level of the area.
- 3) Rate the priority level of the area.

Key Management Area	Management Area Description	Step 1: Rate Achievement (Poor – Good)	Step 2: Rank Priority (Low – High)
1. Water Resource Adequacy (e.g., water quantity)	<ul style="list-style-type: none"> My system is able to meet the water or sanitation needs of its customers now and for the reasonable future. My utility or community has performed a long-term water supply and demand analysis. (Applies to drinking water systems only.) My system understands its relationship to local water availability. (Drinking water utilities should focus on utilization rates relative to any local water stress conditions, wastewater utilities should focus on return flows.) 	Poor	High
2. Product Quality (e.g., clean & safe water)	<ul style="list-style-type: none"> My system is in compliance with permit requirements and other regulatory or reliability requirements. My utility meets local community expectations for the potable water and/or treated effluent and process residual that it produces. 	Fair	High
3. Customer Satisfaction	<ul style="list-style-type: none"> Customers are satisfied with the services my system provides. My system has procedures in place to receive and respond to customer feedback in a timely fashion. 	Good	Medium
4. Community Sustainability & Economic Development	<ul style="list-style-type: none"> My utility is aware of and participating in local and regional community and economic development planning activities. My utility's goals also help to support overall watershed and source water protection and community economic goals. 	Poor	Low
5. Employee & Leadership Development	<ul style="list-style-type: none"> Training programs are in place to retain and improve institutional knowledge. Opportunities exist for employee skills development and career enhancement. Job descriptions, performance expectations, and codes of conduct are established. 	Good	Medium

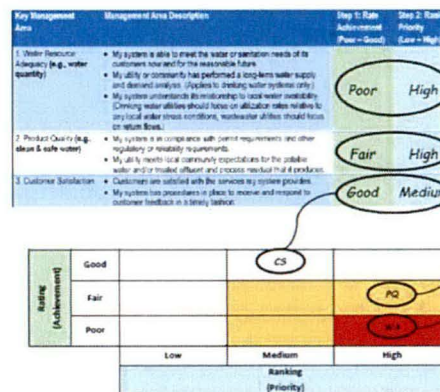
31

STEP 3: Plotting Results

Self-Assessment Demonstration

- WA Water Resource Adequacy
- PQ Product Quality
- CS Customer Satisfaction
- CE Community Sustainability & Economic Development
- ED Employee & Leadership Development

- FV Financial Viability
- OO Operational Optimization
- IS Infrastructure Stability
- OR Operational Resiliency
- SS Stakeholder Understanding & Support



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STEPS 3 & 4: Plotting Results and Focusing Attention

Self-Assessment Demonstration

- Use the table on Page 5 of Tab 2 to write the two letters corresponding to each management area in the appropriate box that corresponds to intersection of the two ratings (i.e. the achievement rating and the priority rating).
- Example: Consumer Satisfaction (CS):
 - Good – G – Achievement
 - Medium – M - Priority

Key Management Area	Management Area Description	Step 3 Rating (Achievement)	Step 4 Ranking (Priority)
1. Water Resource Adequacy	<ul style="list-style-type: none"> The water is able to meet the water or customer needs of the watershed and for the watershed future. The water is consistently delivered in a manner that meets the needs of the watershed. The water is delivered in a manner that meets the needs of the watershed. The water is delivered in a manner that meets the needs of the watershed. 	Poor	High
2. Customer Satisfaction	<ul style="list-style-type: none"> The system is in compliance with current regulations and other requirements in existing water service. The utility meets the current requirements for the service. The utility meets the current requirements for the service. The utility meets the current requirements for the service. 	Fair	High
3. Employee & Leadership Development	<ul style="list-style-type: none"> The system has a plan for employee and leadership development. The system has a plan for employee and leadership development. The system has a plan for employee and leadership development. 	Good	Medium
4. Financial Viability	<ul style="list-style-type: none"> The system has a plan for financial viability. The system has a plan for financial viability. The system has a plan for financial viability. 	Poor	Low
5. Operational Resiliency	<ul style="list-style-type: none"> The system has a plan for operational resiliency. The system has a plan for operational resiliency. The system has a plan for operational resiliency. 	Good	Medium

Rating (Achievement)	Good	CS	
	Fair		
	Poor		
		Low	High
Ranking (Priority)			

STEPS 3: Plotting Results

Self-Assessment Demonstration

- | | | | |
|----|---|----|-------------------------------------|
| WA | Water Resource Adequacy | FV | Financial Viability |
| PQ | Product Quality | OO | Operational Optimization |
| CS | Customer Satisfaction | IS | Infrastructure Stability |
| CE | Community Sustainability & Economic Development | OR | Operational Resiliency |
| ED | Employee & Leadership Development | SS | Stakeholder Understanding & Support |

Rating (Achievement)	Good		CS, ED
	Fair	OO	PQ
	Poor	CE	WA, FV
		Low	High
Ranking (Priority)			

12:00

Lunch

Working Lunch: Guest Speakers



Step 4: Self-Assessment Discussion Questions

1:00

- What are your areas of focus (the orange and red areas)?
- Why are they an area of focus?
- Are your areas of focus different or similar to the other utilities at your table?
- What lessons can you learn from the other people at your table that you could use to improve your performance?
- How might your perspective on these priorities change if you are an:
 - Operator
 - Board Member
 - Judge Executive

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1:50

Improving Outcomes

Creating a Plan, Taking Action, Measuring Results



Tips from Previous Improving Outcomes Exercises

- Key management areas selected and discussed at previous workshops:
 - Financial Viability
 - Infrastructure Stability
 - Operational Optimization
 - Operational Resiliency
 - Stakeholder Understanding and Support
 - Employee and Leadership Development

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Financial Viability



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Financial Viability



• Examples of High Achievement:

- Having a strong bond rating
- Having a positive cash flow
- Maintaining an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenue.

40

Challenges/Changes



- It is uncomfortable and politically challenging to discontinue service to neighbors, acquaintances, elderly customers, or fixed income customers who have not paid their bills.
- It is difficult to communicate to elected officials and consumers about how much it costs to produce drinking water and process wastewater, making it a challenge to get rate increases approved.
- Customers feel that flat rate billing practices are unfair (low volume users paying the same as high volume users).
- Elected officials may make campaign commitments to no rate increases.

Try this:

Undertake a rate study to determine if current rates are adequate to meet both current and future needs.

More suggestions in Tab 6: Page 14

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Financial Viability



NRWA: Revolving Loan Fund

- Established Under Grant from USDA/RUS
 - Rural Utility Service
- Financing for Pre-Development Costs
- Also Available for Equipment Replacement and Service Extension

Meeting the needs of small rural water and wastewater systems for the future.

REVOLVING Loan FUND

UNDER CONSTRUCTION

"It was in a difficult situation and if it had not been for the Rural Water Revolving Loan Fund the project would have failed. We could not have accomplished our project without the help of the loan."

President of the Board,
Small Rural Water System

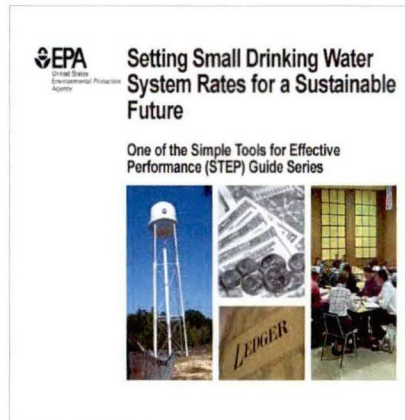
42

Financial Viability



EPA: Setting Small Drinking Water System Rates for a Sustainable Future

- Determining Revenue Needs
- Setting Rate Design
- Approaching Rate Implementation



43

Financial Viability



RCAP: The Basics of Financial Management for Small-community Utilities

- Understanding Financial Statements
- Using Financial Ratios



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Financial Viability: Environmental Finance Center Network





Website: <http://efcnetwork.org/>

Free Webinars:



Free Webinars:

UPCOMING WEBINARS FOR SMALL WATER SYSTEMS

Webinars at a Glance

Ask the Expert: Workforce Development
 Thursday, June 8, 2017
 2:00-3:00pm EDT
[Register Now](#)

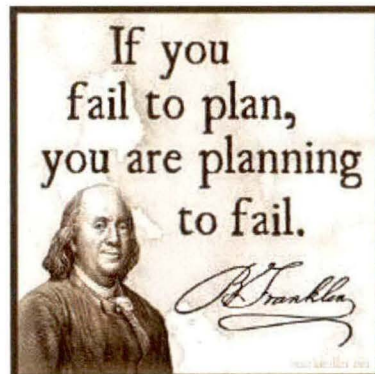
Ask the Expert: Advice on Capital Planning for Your Water System
 Wednesday, June 14, 2017
 2:00-3:00pm EDT
[Register Now](#)

Infrastructure Stability



• Infrastructure Stability Is Dependent Upon

- Asset management
- Capital planning



Infrastructure Stability



Asset Management

Asset **Management** is maintaining a **desired level of service**
(what you want your assets to provide)

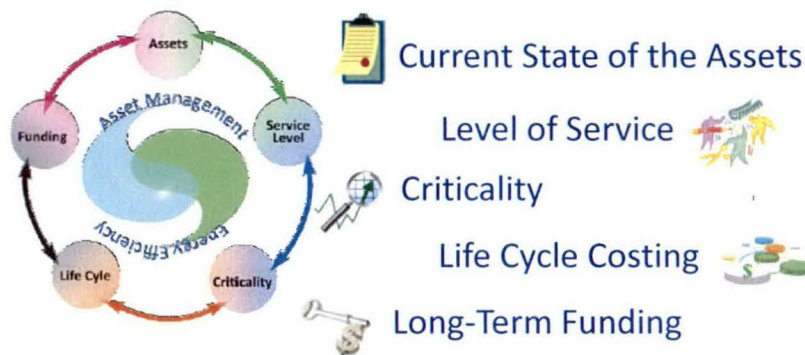
At the lowest **life cycle cost**
(best appropriate cost – not “no cost”)

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Infrastructure Stability



Five Core Components of Asset Management



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Infrastructure Stability



Tips for Capital Improvement Planning

- Set arbitrary minimum price for asset
- Stay realistic
- Five year minimum
- Justify need
- Coordinate with other projects
- Look at broad options
- Detail funding options
- Discuss openly



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Infrastructure Stability



• Examples of High Achievement:

- Having an inventory of system components, location, installation date, and condition.
- Understanding of system operating parameters (e.g., pressure).
- Having a capital improvement plan.

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Challenges/Changes



- Planning for repair and maintenance of infrastructure is hampered by a limited knowledge of the condition of existing infrastructure components.
- Many systems are trapped in a reactive repair and maintenance mode leaving little or no time for undertaking the proactive work needed to establish an asset management program.

Try this:

Create an inventory of your assets over time by setting up a template for logging assets. Log assets at the time that regular maintenance or emergency repairs are performed.

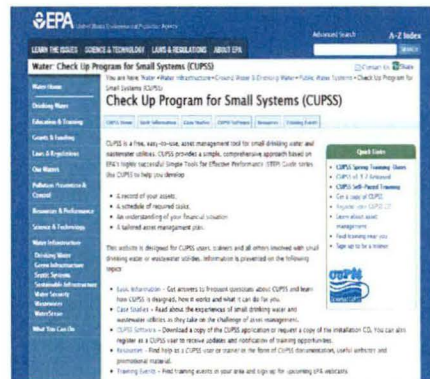
More suggestions in Tab 6: Page 15

Infrastructure Stability



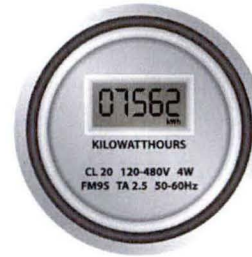
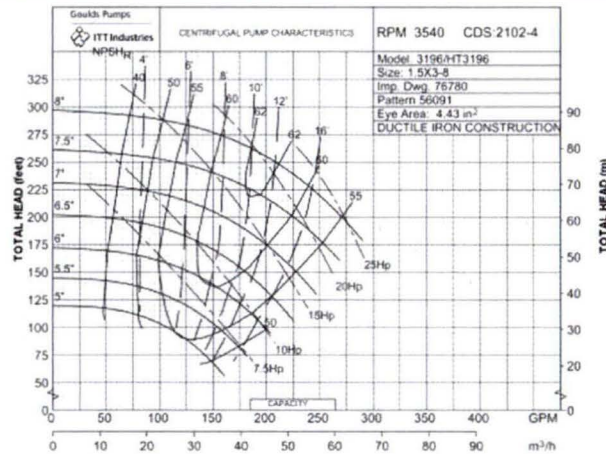
EPA: Check Up Program for Small System (CUPSS)

- **Free Asset Management Tool for Small Drinking Water and Wastewater Utilities!**
- **Tips on How to Develop a Record of Your Assets, an Understanding of Your Financial Situation, and a Tailored Asset Management Plan.**



Operational Optimization

Water/Energy Efficiency



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Operational Optimization

Water/Energy Efficiency



• Examples of High Achievement:

- Having an optimal energy rate schedule
- Using energy efficient pumps
- Minimizing water loss (i.e. < 15%)
- Maintaining a comprehensive maintenance program
- Proper pressure management

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Challenges/Changes



OPERATIONAL OPTIMIZATION

Challenges related to **Operational Optimization** Include:

- High energy bills
- Improper maintenance of equipment
- Excessive water loss

Try this:

- Conduct an energy audit
- Identify locations of water loss
- Insure status of isolation valves
- Monitor pressure regulating values
- Implement pressure management program
- Replace energy inefficient system components
- Sequence pump schedules with electric rate schedules

Operational Optimization

Water/Energy Efficiency



EPA: Energy Use Tool for Water and Wastewater Systems

- Interactive, Excel-based tool
- Detailed Analysis of All Energy Types
- Provides Summary Report: Statement of Energy Performance



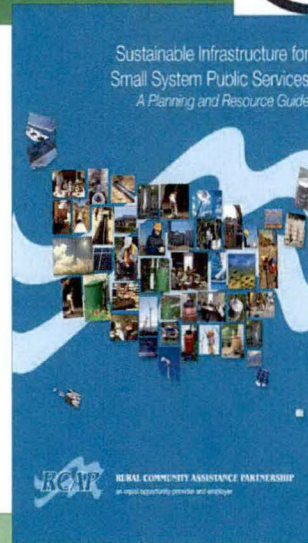
Operational Optimization

Water/Energy Efficiency



RCAP: Sustainable Infrastructure for Small System Public Services: A Planning and Resource Guide

- Water Conservation
- Energy Efficiency
- Renewable Energy



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Operational Resiliency



Operation & Maintenance Plans

Maintain Assets

Operations

- Activities to keep water flowing

Maintenance

- Routine
- Preventative
- Predictive
- Not emergency

Consequence of Failure ↑	Maintenance Important 30% of budget	Maintenance Extremely Important 45% of budget
	Maintenance Less Important 5% of budget	Maintenance Important 20% of budget
	Probability of Failure →	

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Operational Resiliency



• **Examples of High Achievement:**

- Having emergency response plans, operations plans, shut-off checklists for equipment.
- Regular drills of the emergency response plan.
- Certified staff and board members.

Challenges/Changes



- A lack of system documentation.
- Insufficient time to conduct training and exercises on the emergency response plan.
- Employee and board member turnover makes it difficult to maintain familiarity with emergency response procedures and materials.

Try this:

Use an annual board meeting as an opportunity to distribute and review key emergency documents.

More suggestions in Tab 6: Page 16

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Stakeholder Understanding and Support



Communicating with Customers

- Bill stuffers
- Billboards
- Classes
- Consumer Confidence Reports
- Mailers
- Newspapers
- Phone calls
- Posters
- Radio/TV
- Social media
- Special meetings
- Surveys



Don't let the water utility be your community's best kept secret

Think of customers as partners

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Stakeholder Understanding and Support



Customers

Elected Officials



Board Members

Manager

Operators

63

Stakeholder Understanding and Support



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Stakeholder Understanding and Support



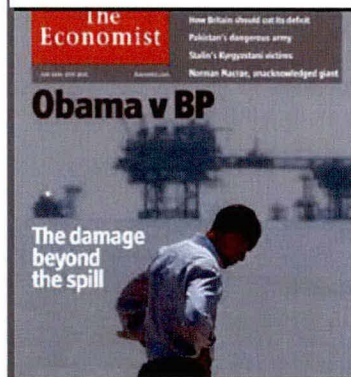
If you don't frame the message.....

65

Stakeholder Understanding and Support



.....the message will frame you

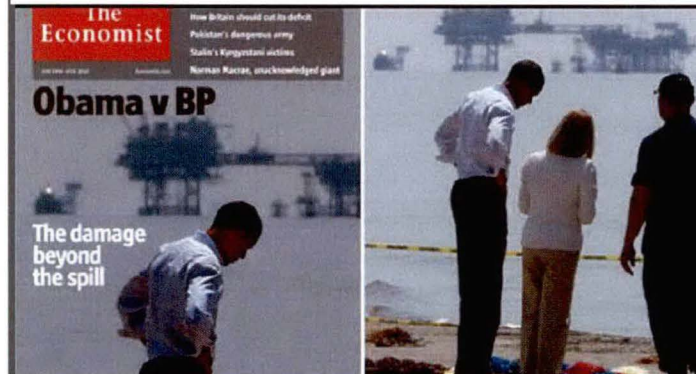


66

Stakeholder Understanding and Support



.....the message will frame you



67

Stakeholder Understanding and Support



- **Examples of High Achievement:**
 - Having a **Capital improvement plan** or other document that summarizes utility priorities and can be shared with utility board.
 - Having standard **operating procedures** for utility staff that address communication.

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Challenges/Changes



Customers and stakeholders display a lack of interest in gaining a better understanding of utility needs.

Customer resistance to paying water bills or supporting rate increases.

Try this:

Host an annual open house or barbeque at your facility for stakeholders and community members. Offer tours of the facility to citizens and local media as a part of this event.

Stakeholder Understanding and Support



NRWA: Quality on Tap!

- Nationwide, Grassroots Campaign for Public Awareness
- Hands On Guide to Engagement and Communication for Better Community Support

Quality On Tap!

"Quality On Tap - Our Government, Our Profession" is a nationwide grassroots public relations and awareness campaign designed especially for the drinking water industry. QOT is intended to promote a positive image to the public, focusing on the safety of drinking water and the expertise of the technical professional who ensures water quality.



Americans often take for granted that they have the highest quality, most affordable water system directly to their homes and businesses. This sense of quiet accomplishment is shared by dedicated professionals that take pride in their hard work, their education, and their service to the community.

Quality On Tap was created in 1996 as the first practical hands-on guide to better public relations for water utilities. It contains the tools small water systems need to do the most important job of all - spreading the word to the public of the quality of work they do and the quality water they produce. All communities nationwide use the QOT logo and materials to promote their own quality water. They are also promoting the quality water of each system that participates in this nationwide campaign.

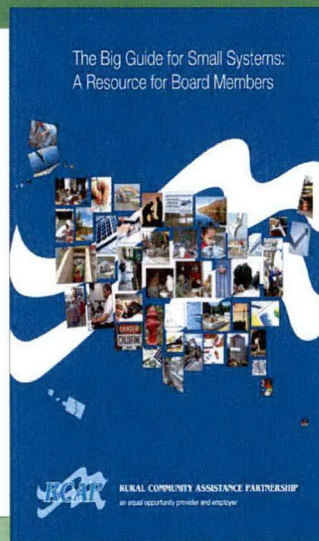


Stakeholder Understanding and Support



RCAP: The Big Guide for Small Systems: A Resource for Board Members

- Water and Wastewater Treatment Basics
- Regulatory Responsibilities
- Board Business
- Financial Duties and Responsibilities



Stakeholder Understanding and Support



EPA: Talking to Your Decision Makers – A Best Practices Guide

- Role of Community Decision Makers in Small Systems
- Tips on How to Communicate Needs to Decision Makers

EPA
Environmental Protection Agency

Talking To Your Decision Makers: A Best Practices Guide

Introduction

The Guide will help you better understand:

- The role of the local (individuals or groups) that oversees and runs decisions affecting your water system.
- The benefits of having a good relationship with decision makers.
- How to effectively communicate your needs to these decision makers.

Target Audience: The Guide is intended for operators and owners of community water systems serving fewer than 10,000 customers.

General Responsibilities of Decision Makers

Decision makers can play a significant role in ensuring that your system is operating efficiently, that your needs are addressed, and that you customers experience the challenges you face and respond to them with the best results.

Financial Responsibilities

- Review and approve annual budgets and money annual spending.
- Make financial decisions to ensure your system has sufficient funds to meet current and future needs.
- Review and approve funding for infrastructure repairs or projects.
- Approve and oversee financing for system expansion and certification.

Managerial Responsibilities

- Hire and supervise system staff.
- Set and adjust rates and fee structures.
- Set and oversee policies on system policies.
- Coordinate the strategic vision and goals for the system.
- Resolve staff conflicts and address staff needs or concerns.

Communication

- Keep customers informed of the current status of the system, upcoming projects, rate setting, staffing changes, and all other key initiatives.
- Serve as a liaison between system staff and the community.
- Ensure that the community is aware of the system's emergency response procedures.

For additional information:
Call the Safe Drinking Water Hotline at 1-800-455-4114, visit the EPA Web site at www.epa.gov/sdwfwater, or contact your state drinking water representative.

Employee and Leadership Development



73

Employee and Leadership Development



- **Examples of High Achievement:**
 - Having written job descriptions.
 - Providing clear performance expectations.
 - Making sure staff are cross-trained.

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Challenges/Changes



- Employee motivation and opportunities for development can be hampered by lack of resources.
- Limited access to training opportunities can prevent personal and professional development.
- Lack of written job responsibilities can lead to uncertainty about management expectations and a lack of recognition for the work that is done.
- Time constraints on employees.

Try this:

Develop relationships with neighboring systems to share training resources.

More suggestions in Tab 6: Page 13

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Table Activity

- Using the **Improving Outcomes Worksheet** provided at your table (also a copy in **Tab 3**) each participant should complete an improvement worksheet for **one** of the low achievement/high priority management areas identified by one of your table members. The worksheet has **four** questions to answer.
- After picking a management area, share perspectives on:
 - What will constitute '**high achievement**' in this management area?
 - What are potential causes for the achievement gaps?
 - What changes will the utility need to make to **improve performance**?
 - What will be the **biggest challenges** to performance improvement?

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Table Activity

Using *IMPROVING OUTCOMES WORKSHEET*

IMPROVING OUTCOMES WORKSHEET

Key Management Area: _____ Table Number: _____

What would be some examples of "high achievement" in this management area?	
What are some potential challenges for your utility attaining high achievement in this area?	
What changes would the utility need to make to improve performance?	
What will be the biggest barriers to making these changes?	



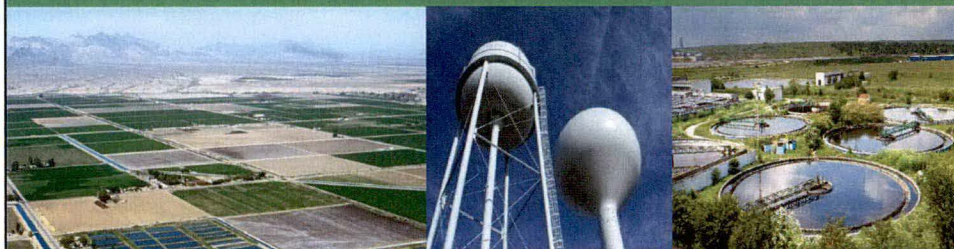
Tab 3 in your notebook

Examples in Tab 6 in your notebook (pages 13-17)

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2:50

10 Minute Break



3:00

Creating an Action Plan

Where do we go from here?



Action Plan Worksheet

SUSTAINABLE MANAGEMENT ACTION PLAN WORKSHEET

INSTRUCTIONS:

- ✓ List your top three priority management areas - these should be drawn from the self-assessment activity.
- ✓ List the improvement actions that you will undertake to address the priority management areas - you should list at least one action for each priority management area (action may address multiple management areas).
- ✓ Fill out the details in the table below for each improvement action separately (i.e., one table per action).

Priority Management Areas:

- 1.
- 2.
- 3.

Improvement Action:

Description:
✓ Action
✓ Management area(s) addressed
✓ Objectives(s)
Timeline:
✓ Start date
✓ Milestones
✓ Target completion date
Responsible Party (or Parties):
Relevant Resources (on-hand or needed):
Challenges to Address:
Review Process:
✓ Performance indicators or measures
✓ Status reports and update frequency/type
Other Notes:

Copyright 2017, Oregon Sustainable Management Action Plan Worksheet

Tab 4 in your notebook

Action Plan Worksheet

SUSTAINABLE MANAGEMENT ACTION PLAN WORKSHEET

Instructions:

- List your top three priority management areas - These should be drawn from the self-assessment activity.
- List the improvement actions that you will undertake to address the priority management areas - you should have at least one action for each priority management area (actions may address multiple management areas).
- List the responsible party for each improvement action separately (i.e., one table per action).

Priority Management Area:

- 1.
- 2.
- 3.

Improvement Action:

Description:

- Action
- Management Area(s) addressed
- Objectives

Timeline:

- Start date
- Milestones
- Target completion date

Responsible Party (or Parties):

Relevant Resources (on-hand or needed):

Challenges to Address:

Review Process:

- Performance indicators or measures
- Status reports and updates
- Frequency/cycle

Other Notes:

Step 1: Have each **person** fill out their top three priority management areas from the Self Assessment exercise and then pick **one** to work on.

For Example...

Priority Management Areas:

1. Water Resource Adequacy
2. Product Quality
3. Financial Viability ← Select One

Action Plan Worksheet

SUSTAINABLE MANAGEMENT ACTION PLAN WORKSHEET

INSTRUCTIONS:

- Identify the three priority management areas – these should be drawn from the self-assessment activity.
- List the management actions that you will undertake to address the priority management areas – you should have at least one action for each priority management area (SMPs may address multiple management areas).
- Fill out the details in the table below for each improvement action separately (i.e., one table per action).

Priority Management Areas:

- 1.
- 2.
- 3.

Improvement Action:

Details:

- ✓ Action
- ✓ Management Area(s) addressed
- ✓ Objective(s)

Timeline:

- ✓ Start date
- ✓ Milestones
- ✓ Target completion date

Responsible Party (or Parties):

Relevant Resources (on-hand or needed):

Challenges to Address:

Success Process:

- ✓ Performance indicators or measures
- ✓ Status reports and updates
- Frequency/when

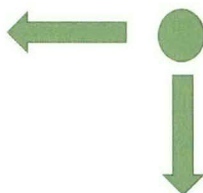
Other Notes:

Step 2: Choose an action that you could take to make improvements in your selected Priority Management Area.

For Example...

Priority Management Areas:

1. Water Resource Adequacy
2. Product Quality
3. Financial Viability



Improvement Action: Improve practices for reducing the number of outstanding bills

Action Plan Worksheet

SUSTAINABLE MANAGEMENT ACTION PLAN WORKSHEET

INTRODUCTION:

- Use this worksheet for three priority management areas—these should be drawn from the self-assessment activity.
- Use the improvement actions that you will undertake to address the priority management areas—you should have at least one action for each priority management area (SOPs may address multiple management areas).
- Fill out the details in the table below for each improvement action separately. If you have one action.

Priority Management Areas:

1.
2.
3.

Improvement Action:

Description:

- Action
- Management area(s) addressed
- Objective(s)

Timeline:

- Start date
- Milestones
- Target completion date

Responsible Party (or Parties):

Personnel Resources (on-hand or needed):

Challenges to Address:

Related Process:

- Performance indicators or measures
- Risks, rewards and controls
- Budget/expense

Other Notes:

Step 3: Complete the fields below to describe what is needed to complete your “Improvement Action”

For Example...

Description:	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Limit the carry-forward balance to a fixed amount and increase service deposits to discourage customers who move frequently or avoid paying their bills.
<input checked="" type="checkbox"/> Action	
<input checked="" type="checkbox"/> Management Area(s) addressed	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Financial Viability
<input checked="" type="checkbox"/> Objective(s)	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Reduce the amount of money lost to unpaid bills
Timeline:	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> June 2013: Start - Draft new carry-forward balance allowance and new service deposit requirements for new customers <input checked="" type="checkbox"/> July 2013: Propose and approve new balance and deposit requirements at board meeting August 2013: Notify customers of new requirements <input checked="" type="checkbox"/> September 2013: Completion - Implement new balance and deposit requirements
<input checked="" type="checkbox"/> Start date	
<input checked="" type="checkbox"/> Milestones	
<input checked="" type="checkbox"/> Target completion date	

For Example...

Responsible Party (or Parties):	<ul style="list-style-type: none"> ✓ Bill Smith ✓ Jane Anderson
Relevant Resources (on-hand or needed):	<ul style="list-style-type: none"> ✓ Example ordinance text created by other utilities to support the desired policy change
Challenges to Address:	<ul style="list-style-type: none"> ✓ Public pressure on board members to reject rate increases
Review Process:	<ul style="list-style-type: none"> ✓ Milestone dates met
<ul style="list-style-type: none"> ✓ Performance indicators or measures ✓ Status reports and updates frequency/cycle 	<ul style="list-style-type: none"> ✓ Weekly progress checks with utility director relative to identified milestones
Other Notes:	<ul style="list-style-type: none"> ✓ Conduct calls with each board member to explain the need for the policy change and answer their questions

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4:00

Tools, Guides, and Other Resources

Resources Available for Your Use



Online Resources

<https://www.rd.usda.gov/programs-services/services/sustainable-management-tools>

Resources	Water Resource Availability	Financial Viability	Operational Efficiency	Energy/Water Efficiency	Infrastructure Reliability	Operational Resiliency	Stakeholder Understanding & Support	Developed by:	Available:	Notes
Strategic Planning: A Handbook for Small Water Systems, Simple Tools for Environmental Protection (STEP) Guide								EPA	https://www.epa.gov/assetmanagement/assetmanagement-simple-tools-environmental-protection-step-guide.pdf	This guide presents basic concepts how the process can help, maps provides background information worksheets from which you can't
Protecting Your Community's Assets: A Guide for Small Wastewater Systems								NEEC	http://www.nec.org/assetprotection	This guide helps you to manage emergency situations affecting a
Preventive Maintenance Card File for Small Public Water Systems Using Ground Water								EPA	https://www.epa.gov/assetmanagement/preventive-maintenance-card-file-small-public-water-systems-using-ground-water	Schedules for maintenance tasks
Water System Operator Roles and Responsibilities: A Best Practices Guide								EPA	http://water.epa.gov/assetprotection/csm/systems/guide/0000_07_01_small_systems_guide_small_systems_operator_roles_and_responsibilities.pdf	This Guide will help you better understand safe drinking water to your system depending on your system size & requirements.
Energy Use Assessment Tool for Wastewater Systems (Includes User Guide, Tool and Example Value Record Template)								EPA	https://www.epa.gov/assetmanagement/energy-use-assessment-tool-for-wastewater-systems	An Excel based tool to help small their current energy usage and find
Simultaneous Compliance Tool								JAHWA	http://www.jahwa.org/files/assetmanagement/assetmanagement-1454404-compliance-1206	Value record template tool
AWWA Water Audit Software								WEF	http://www.wef.org/assetmanagement/assetmanagement-1454404-compliance-1206	This Simultaneous Compliance Tool various water quality goals & requirements.
Pipe Repair Checklist								JAHWA	http://www.jahwa.org/files/assetmanagement/assetmanagement-1454404-compliance-1206	Free software to compile a preliminary
Control and Mitigation of Drinking Water Losses in Distribution Systems								EPA	http://water.epa.gov/assetprotection/csm/systems/guide/0000_07_01_small_systems_guide_small_systems_control_and_mitigation_of_drinking_water_losses_in_distribution_systems.pdf	AWWA Small System Pipe Repair
Restructuring and Consolidation of Small Drinking Water Systems								EPA	http://www.epa.gov/assetmanagement/assetmanagement-1454404-compliance-1206	Information on establishing water drinking water systems. It provides


Smart Management for Small Water Systems Project

Website: <http://efcnetwork.org/small-systems-project>

The Smart Management for Small Water Systems Project seeks to address major issues facing the nation's smallest drinking water systems (those serving 10,000 or fewer people). Our team of experts works with water systems across the country, US territories, and the Navajo Nation to address these issues, which range from asset management and rate setting to water loss detection and conservation, through training and technical assistance.

Small water systems can take advantage of training and resources through a variety of offerings including:

- In-Person Workshops
- One-on-one technical assistance
- Small Group sessions
- Funding Forums
- Webinars
- eLearning Modules
- Water Rates Dashboards
- Blog Posts




Smart Management for Small Water Systems

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 Southwest Environmental Finance Center
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Topics:

- Asset Management
- Energy Management
- Fiscal Planning & Rate Setting
- Funding Coordination
- Managerial & Financial Leadership
- Water Loss Reduction
- Water System Collaboration
- Climate Resiliency



The Smart Management for Small Water Systems project is a collaborative effort between the members of the Environmental Finance Center Network and its partner, the American Water Works Association. This project is made possible through a cooperative agreement with the U.S. Environmental Protection Agency.

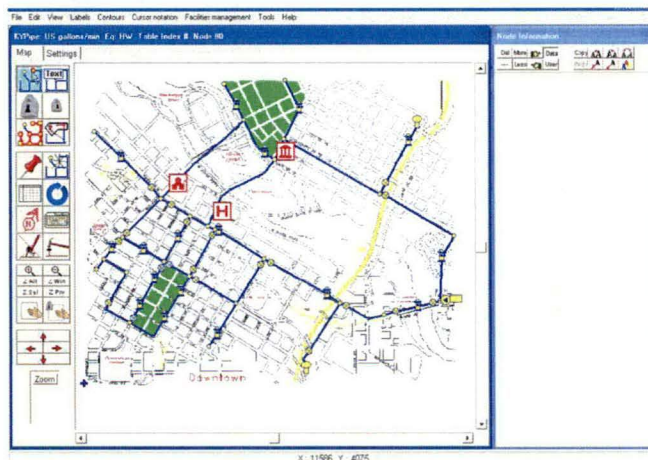
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Key Organizations in Kentucky

- KY Water Resources Research Institute (KWRRI)
- KY Division of Water (KDOW)
- KY Division of Compliance Assistances (KCDA)
- Kentucky Rural Water Association (KRWA)
- KY Rural Community Assistance Partnership (RCAP)
- KY Infrastructure Authority (KIA)
- KY Public Service Commission (PSC)
- KY Water and Wastewater Operators Association (KWWOA)
- KY/TN AWWA/WEF
- KY Area Development Districts (ADDs)
- KY Cooperative Extension Service
- KY Center of Applied Energy Research (CAER)

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Free KYPIPE Software



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4:40

Next Steps



Next Steps for Your Utility

- Next Steps for Judge Executive/Mayor/Board Member.
- Next Steps For Utility Manager/Superintendent.
- Next Steps For Operator.

Next Steps for Utility Leadership

- Next Steps for Judge Executive/Mayor/Board Member
 - Share what you have learned with other board members or utility manager/operators
 - Determine what actions may be needed to help implement the goals of your management improvement plan

Next Steps for Utility Manager

- Begin to implement your own workplan.

UTILITY'S NEXT STEP

NEXT STEPS FOR YOUR UTILITY

Note: The next three worksheets, the Sustainable Management Plan and Small Business Workshop, have a number of steps or follow-up items that you can use as a checklist or to help you track progress. This checklist is an implementation checklist. The items of changes in your operation listed on the Small Business Plan, are the workshop materials, including help in completing the preliminary improvement plan worksheet.

Approximate Timeframe	Recommended Activities
1-2 weeks after the workshop	<p>Hold a follow-up meeting with your utility - include one utility manager or leader from all departments or your utility, and/or other staff members who can help with organizational activities. Issues:</p> <ul style="list-style-type: none"> • Discuss results of Self-Assessment activity • As necessary, run the Self-Assessment activity with them to understand the work you accomplished during the workshop - you can make use of the team exercise <i>Who's Who's a Who</i> materials available from USEPA and EPA. • Complete the preliminary Utility Improvement Plan Worksheet. <p>Your workshop facilitator or technical assistance provider will contact you to see if you have questions or technical assistance needs as you move through the workshop materials, including help in completing the preliminary improvement plan worksheet.</p>
4-8 weeks after the workshop	<p>If they have not already been included in the process up to this point - consider reaching out to utility board members and/or community leaders (e.g., city manager or mayor) who can provide support to influence utility operations.</p> <ul style="list-style-type: none"> • Explain the Workshop content and the results of the Self-Assessment • If appropriate, run the Self-Assessment activity with them to highlight the work you accomplished during the workshop - you can make use of the team exercise <i>Who's Who's a Who</i> materials available from USEPA and EPA. • Show your preliminary Utility Improvement Plan and modify the plan based on their feedback, as needed. • Get any necessary approval needed to move forward with implementing the Utility Improvement Plan <p>Your workshop facilitator or technical assistance provider will follow up with you 4-8 weeks after your first check-in to see if you have any additional questions about the improvement plan or other workshop materials. If needed, a one-on-one or other meeting will be scheduled.</p>
8-12 weeks after the workshop	<p>Begin to implement the Utility Improvement Plan, based on timelines identified in Utility Improvement Plan worksheet.</p>

Tab 7 in your notebook

Next Steps for Utility Operator

- Next Steps for Operator
 - Share what you have learned with your utility's other operators.
 - Apply the assessment process you just went through to address your own operational issues.
 - Identify your operational issues
 - Assess the issues (priority and performance)
 - Identify key area(s) to focus on
 - Develop and implement an action plan

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5:00

Closing Comments

Thanks for coming!

