



## Kentucky Water Research Institute

233 Mining and Mineral Resources Building  
Lexington, Kentucky 40506-0107  
859-257-1299 • FAX: (859) 323-1049

June 2, 2017

Ms. Talina R. Mathews, Executive Director  
Public Service Commission  
P. O. Box 615  
Frankfort, KY 40602-0615

**RECEIVED**

JUN 5 2017

PUBLIC SERVICE  
COMMISSION

Dear Ms. Mathews:

The Kentucky Water Resources Research Institute and collaborators from the National Environmental Services Center at West Virginia University have scheduled a workshop at Carter Caves State Resort Park on June 16, 2017. The "Sustainable Management of Rural and Small Systems Workshop" was developed by the US EPA and USDA and focuses on ten key management areas for small drinking water and wastewater utilities. The workshop is being offered at no cost to participants through financial support provided by USDA.

A training summary/timed agenda is enclosed that includes a description of the topics to be covered. The actual slides used in the presentation follow. Brief bios for the speakers are also included. This workshop was submitted to the Kentucky Division of Compliance Assistance, Certification and Licensing Branch who recently approved 6 hours of continuing education credit for drinking water and wastewater system operators. A copy of that application is included.

We respectfully request that the training also be approved for 6 hours of continuing education credit as management training for commissioners of water districts, combined water, gas, or sewer districts, or water commissions as referenced in 807 KAR 5:070. It is our understanding that this workshop has been previously approved for presentation by other groups for this purpose. Please contact me if additional information is needed.

Sincerely,

A handwritten signature in blue ink, appearing to read 'James A. Kipp'.

James A. Kipp, Associate Director  
Kentucky Water Resources Research Institute  
kipp@uky.edu

Enclosures (original plus 10 copies)

<p><b>Mail to:</b></p> <p>Division of Compliance Assistance          Certification and Licensing Branch          Operator Certification Program          300 Fair Oaks Lane          Frankfort, KY 40601</p>	<p>Commonwealth of Kentucky          Department for Environmental Protection</p> <p><b>Application for Approval of Courses for          Continuing Education Credit</b></p> <p><i>Drinking Water Treatment, Drinking Water Distribution,          Bottled Water,          Wastewater Treatment and Collection System</i></p> <p>Telephone: 1-800-926-8111  <a href="http://www.dca.ky.gov/certification">www.dca.ky.gov/certification</a></p>	<p><i>For Official Use Only          Do not write in this space</i></p> <p><b>RECEIVED</b></p> <p><b>JUN 05 2017</b></p> <p>PUBLIC SERVICE          COMMISSION</p>
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**I. Course Sponsor Information:****Agency Interest Number:** \_\_\_\_\_

A. Sponsoring Organization (school, business, association, etc.):

Kentucky Water Resources Research Institute (University of Kentucky)  
 National Environmental Services Center (West Virginia University)

Key Contact Person:

Name and Title: Lindell Ormsbee, Director KWRRRI

Address: 233 Mining and Mineral Resources Building, University of Kentucky

City, State and Zip: Lexington, KY 40506-0107

Phone and Fax: P: 859-257-6329 F: 859-323-1049

E-mail: Lindell.Ormsbee@uky.edu

Web Page: www.uky.edu/waterresources/

☐ One-Time Approval Requested☒ Two-Year Approval Requested

B. If individual requesting approval is different than the key contact person for the sponsor, please complete the following information:

Name and Title: \_\_\_\_\_

Address: \_\_\_\_\_

City, State and Zip: \_\_\_\_\_

Phone and Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

**II. General Course Information:**

A. Title: Sustainable Management of Rural and Small Systems Workshop (Workshop in a Box)

B. Location and Date/s: Carter Caves State Park, Olive Hill, KY June 16, 2017

C. Cost per Student or Group: \$ No Charge

D. Delivery Format or Media (check those that apply):

<input checked="" type="checkbox"/> Classroom	<input type="checkbox"/> Web/Online	<input type="checkbox"/> Laboratory	<input type="checkbox"/> Exhibition
<input type="checkbox"/> Field	<input type="checkbox"/> CD-ROM	<input type="checkbox"/> Video/Audio	<input type="checkbox"/> Correspondence
<input type="checkbox"/> Other (Explain) _____			



E. Continuing Education Credits (**hours**) Requested for Target Audience:Drinking Water Treatment, Distribution and/or Bottled Water: 6 hoursWastewater Treatment and/or Collection: 6 hours**(Attach a detailed description explaining how this training relates to the wastewater treatment process.)****III. Required Items** (must be attached to submittal, check off as completed):

- A. ☒ Course Learning Objectives
- B. ☒ Criteria for Successful Completion by Operators
- C. ☒ Agenda (timed with instructors identified and brief description of topics)
- D. ☒ Credentials for All Instructors

**IV. Additional Attachments** (required for distance learning courses, optional for other training):

- A. ☐ Instructional Design (developed by whom/their credentials)
- B. ☐ Curriculum Content (subject matter experts/their credentials)
- C. ☐ Required Assignments and/or Examinations (type, passing score, etc.)
- D. ☐ Mandatory Time Constraints (deadlines, granting of extensions, etc.)

**V. Signature of Sponsor's Contact Person**

I confirm that all information provided with this application is accurate to the best of my knowledge. A complete list of attendees and credits to be awarded to them will be forwarded on a "Continuing Education Activity Report" to the Kentucky Division of Compliance Assistance (within 30 days of completing the course when possible).

Printed Name and Title: Lindell Ormsbee, Director KWRRRI

Signature and Date: \_\_\_\_\_

# SUSTAINABLE MANAGEMENT OF RURAL AND SMALL SYSTEMS WORKSHOP AGENDA

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June 16, 2017  
Carter Caves State Park  
8:30 am – 4:30 pm

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**FACILITATOR:** Lindell Ormsbee, Professor, University of Kentucky, Department of Civil Engineering  
Lauri Andress, Assistant Professor, West Virginia University, School of Public Health

**SPEAKER(S):** Katherine Garvey, Director, WVU Land Use and Sustainable Development Law Clinic

Time	Session
8:30	Sign-in/Registration
9:00	Introductions and Workshop Objectives – Lindell Ormsbee, Director KWRRRI
9:15	<b>Session 1: Overview of Key Management Areas – Presentation</b> <ul style="list-style-type: none"><li>• Presentation of Key Management Areas</li><li>• Group Discussion: Other Important Management Areas for Sustainability</li></ul>
9:45	<b>Session 2: Utility ‘Self Assessment’ Exercise</b> <ul style="list-style-type: none"><li>• Explain “Sustainable Management Self Assessment”</li><li>• Participants Conduct Self Assessment<ul style="list-style-type: none"><li>○ Rate utility achievements and rank management priorities</li><li>○ Where is your utility strong? Why?</li><li>○ Where is there the most room for improvement? Why?</li></ul></li><li>• Explain Plotting of Results: achievements vs. priorities<ul style="list-style-type: none"><li>○ Plot Results</li><li>○ What are your areas of focus (high priority and low performance)?<ul style="list-style-type: none"><li>▪ Why are they a priority?</li><li>▪ Why is performance low?<ul style="list-style-type: none"><li>• Technical capacity?</li><li>• Financial capacity?</li><li>• Managerial capacity?</li></ul></li></ul></li></ul></li><li>• What are the commonalities and differences among table participants’ achievements, priorities, and challenges?</li></ul>



<b>10:40</b>	<b>Break</b>
<b>10:55</b>	<b>Session 3: Plenary Discussion – Self Assessment Results</b> <ul style="list-style-type: none"> <li>• Tables Report Out</li> <li>• Speaker: Rural Community Assistance Partnership</li> <li>• Synthesize Results by Plotting Entire Group</li> </ul>
<b>11:55</b>	<b>Working Lunch – Discussion of Group Plotting (Speaker: KYDCA)</b>
<b>12:55</b>	<b>Session 4: Improving Outcomes</b> <ul style="list-style-type: none"> <li>• Tips from previous Improving Outcomes Exercises</li> <li>• Each participant completes an improvement worksheet for one low achievement/high priority management area</li> <li>• Discussion Questions: <ul style="list-style-type: none"> <li>○ What will constitute “high achievement” in this management area?</li> <li>○ What changes will the utility need to make to improve performance?</li> <li>○ How could you track your performance progress?</li> <li>○ What will be the biggest challenges to performance improvement?</li> </ul> </li> <li>• Participants share improvement worksheet results at their tables</li> </ul>
<b>1:45</b>	<b>Session 5: Plenary Discussion – Practices, Tools, and Measures: Results</b> <ul style="list-style-type: none"> <li>• Tables Report Out</li> <li>• General Discussion of Findings</li> </ul>
<b>2:15</b>	<b>Break</b> <ul style="list-style-type: none"> <li>• Group Photo</li> </ul>
<b>2:30</b>	<b>Session 6: Tools, Guides and Other Resources</b> <ul style="list-style-type: none"> <li>• Presentation of Additional Tips, Tools, and Measurement</li> <li>• Speaker: Kentucky Infrastructure Authority</li> </ul>
<b>3:10</b>	<b>Session 7: Creating an Action Plan</b> <ul style="list-style-type: none"> <li>• Discuss Utility Management Improvement Plan</li> <li>• Complete a Sustainable Management Action Plan Worksheet</li> </ul>
<b>3:50</b>	<b>Session 8: Sharing Success Stories</b>
<b>4:10</b>	<b>Session 9: Next Steps</b>
<b>4:20</b>	<b>Session 10: Feedback Session</b> <ul style="list-style-type: none"> <li>• Participants Complete Workshop Evaluation Form</li> </ul>
<b>4:30</b>	<b>Adjourn</b>

**Lindell Ormsbee, P.E., P.H., Ph.D, D.WRE, F.ASCE**

Kentucky Water Resources Research Institute (KWRRRI), Director

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233 Mining & Mineral Resources Bldg.

University of Kentucky

Lexington, KY 40506-0107

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  
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 Farmer Center for the 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

## **Katherine Garvey, J.D., LL.M.**

Contact Information: WVU College of Law, P.O. Box 6130, Morgantown WV 26506-6130; (304) 293-8288;  
katherine.garvey@mail.wvu.edu

### **Education / Academic Credentials**

Vermont Law School, LL.M. 2010, *cum laude*, Environmental Law  
University of Missouri-Kansas City School of Law, J.D. 2004  
Webster University, B.S. 2000, Business Management  
La Universidad de los Andes, Bogotá, Colombia, 01/98-12/98, Spanish and Economics

### **Professional / Academic Experience**

- Courses Taught: Land Use and Sustainable Development Law Clinic, Environmental Law, Environmental Advocacy & Writing, Introduction to Environmental Law
- Research Interests: Environmental regulation at the local level, source water protection
- Grants: Legal Education to Address Neglected Properties (2014), Hardy County Source Water Protection (2014)

### **International Experience**

- 17th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, Representative for Vermont Law School.
- World Summit on Sustainable Development 2002, Johannesburg, South Africa, Representative for the National Association of Environmental Law Schools.
- EnviroLaw Solutions Conference 2002, Durban, South Africa.
- Internship at FUNDEA, Caracas Venezuela, worked on conservation contracts, Summer 2003.
- Proficient in Spanish, lived 2.5 years in Latin America. Passed el Examen de Admisión de Estudios Posgraduados (Spanish version of the GRE) with above average score.

### **Professional Affiliations – Associations – Service & Outreach**

- Board Member, Northern Brownfields Assistance Center
- Member, American Bar Association
- Member of the Bar, West Virginia, Vermont and Missouri
- Liaison, New River Clean Water Alliance

### **Awards and Honors**

- Solid Waste Management Award, American Public Works Association (2006) for development of a solid waste management plan and funding for a hazardous waste management and recycling facility

### **Selected Publications**

- *Investing in Green Infrastructure for Source Water Protection*, Chapter 1, World Resources Institute (2014).
- *Legal Consequences of Adopting New Floodplain Maps in New Hampshire*, 43 Env'tl. L. Rptr. 10564 (2013).



- *Local Protection of Natural Resources after Jam Golf: Standards and Standard of Review*, 11 Vt. J. Env'tl. L. 145 (2009).

### **Selected Presentations**

- *Game Changers: Land Banks and On-Site Citations*, Continuing Legal Education, Charleston WV (May 2015).
- *Client-centered Lawyering in a Rural Communities*, 14<sup>th</sup> Annual Transactional Clinical Conference, Kansas City, MO. (April 2015).
- *Utilizing Resilient Land Use Planning Concepts to Protect Local Source Water*, 2015 Water Resources Conference of the Virginias, Roanoke, WV, October 6, 2015
- *Policy, Law & Biofuels*, Bioproducts Master Teacher Training Workshop, July 11, 2013
- *Fayette County Dilapidated Buildings Strategy Session*, April 29th, 2015
- *An Introduction to Legal Issues Affecting Neglected Properties*, Community Leadership Academy, Morgantown, WV, October 27, 2015
- *Morgantown Utility Board's Source Water Protection Plan*, Initial Meeting, January 21, 2015
- *Navigating the Ordinance and Enforcement Maze*, Property Rescue Initiative Information Workshop, Montgomery, WV, October 9, 2015
- *The View from 10,000 Feet Up- Voluntary Initiatives and Government Regulations*, Spring 2013 Mountain State Land Use Academy, Pipestem WV May 5, 2013
- *Mapping and Legal Implications of Future Flooding in the Lamprey River Watershed of New Hampshire Due to Changes in Land Use and Climate*, The Coastal Society Conference, Miami FL, Jun 2012).


### **Courses Taught**



Environmental Law, Introduction to Environmental Law, Environmental Communication, Introduction to Business Law, Land Use Clinic, Land Use and Sustainable Development Law Clinic, Torts, Legal Writing I

### **Grants**

- Property Rescue Initiative, Technical Assistance to Address Legal Issues related to Dilapidated Properties December 2015
- Benedum Foundation, West Virginia Legal Education to Address Abandoned and Neglected Properties, July 2014
- Hardy County and the Potomac Valley Conservation District, Hardy County Source Water Protection and Ordinance Review, April 2015.

# Sustainable Management of Rural and Small Systems Workshop



 Carter Caves State Resort Park  
Olive Hill, KY – June 16, 2017 

## Welcome and Introductions

Moderator: Lindell Ormsbee

- Welcome
- WVU – University of Kentucky vision for assisting small communities
- Introduction of Team Members
- Participant Introductions – Name, Community, Role
- Workshop Materials
- Meeting Logistics

2

## USDA Workshop-in-a-Box Objectives

- Learn about key utility management areas
- Complete a self-assessment to understand your respective community systems, needs, wants, requirements, and options
- Discuss tools, tips, and measures for performance improvement
- Exchange information and experiences with participants from other local utilities
- Initiate developing an action plan for your respective communities

3

## Schedule of Activities

Welcome and Introductions  
Workshop Objectives  
Key Management Areas  
Self Assessment Exercise  
Lunch, Invited Presentations, Networking  
Improving Outcomes  
Practices, Tools, and Measures  
Creating an Action Plan  
Next Steps  
Feedback Session

4

# Overview of the Ten Key Management Areas

Outcomes that well-managed utilities strive for



## Common Challenges for Utility Managers

- Aging infrastructure
- Rate issues
  - Prioritize demands for utility expenditures
  - Long-term rate adequacy strategy
- Customer satisfaction and confidence with services and rates



## Common Challenges for Utility Managers

- Operational issues
  - Labor and material costs
  - Regulatory compliance and new requirements
- Workforce complexities
  - Attracting and keeping reliable and competent staff
  - Succession planning
- Knowledgeable and engaged board members

7

## The Well-Managed Utility

- Ten Management Areas framed as outcomes
- Building blocks for utility performance improvement: where to focus and what to strive for
- Most water and wastewater utilities pay attention to these areas and likely perform well in at least some of them
- Fit into, draw on, and support asset management, long-term business planning, continual improvement management systems

8

## The Ten Key Management Areas

- Product Quality
- Customer Satisfaction
- Infrastructure Stability
- Community Sustainability & Economic Development
- Stakeholder Understanding and Support
- Employee and Leadership Development
- Operational Optimization – Energy and Water Efficiency
- Operational Resiliency
- Water Resource Adequacy
- Financial Viability

9

## Product Quality

- Clean and safe water
- Produce potable water, treated effluent, and process residuals/recovered resources:
  - Full compliance with regulatory and reliability requirements
  - Consistent with customer, public health, and ecological needs
  - Consistent with local economic development and business needs and opportunities

10

## Customer Satisfaction

- Know what your customers expect in service, water quality, and rates
- Set goals to meet these expectations
- Help your customers understand the value of water
- Develop a way to gather feedback from your customers, review the feedback, and then act on it

11

## Employee & Leadership Development

- Enable a workforce that is competent, motivated, adaptive, and safe working
- Ensure employee institutional knowledge is retained and improved on over time
- Create opportunities for professional and leadership development

12

## Operational Optimization

- 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

13

## Financial Viability

- Ensure revenues adequate to recover costs, fund timely maintenance, repair, and replacement of assets, and provide for reserves
- Establish predictable rates, consistent with community expectations and acceptability – discuss rate requirements with customers, board members, and other key stakeholders

14



## Infrastructure Stability

- Understand **costs** and **condition** for each system component
- Understand operational performance factors (e.g., pressure)
- Plan for system component repair and replacement over the long-term at the lowest possible cost
- Coordinate asset repair, rehabilitation, and replacement within the community to minimize disruptions and other negative consequences

15

## Operational Resiliency

- Identify threats to the system (legal, financial, non-compliance, environmental, safety, security, and natural disaster) – conduct all hazards vulnerability assessment
- Establish acceptable **risk levels that support** system reliability goals
- Identify how you will manage risks and plan response actions – prepare all-hazards emergency response plan

16

## Community Sustainability & Economic Development

- Be active in your community
  - Be aware of, or participate in, discussions of community and economic development
  - Get to know local business needs and be aware of opportunities for new residential or business customers
- Align Utility Goals: to be attentive to the impacts utility decisions will have on current and future community and watershed health
- Align Utility Goals: to promote community economic vitality and overall improvement

17

## Water Resource Adequacy

- Ensure water availability consistent with current and future customer needs:
  - Long-term resource supply and demand analysis
  - Conservation
  - Public education
- Understand the system role in water availability
- Manage operations to provide for long-term aquifer and surface water sustainability and replenishment

18

## Stakeholder Understanding & Support

- Create 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
- Actively engage with the community and customers:
  - Understand needs and interests
  - Promote the value of clean and safe water

19

## The Self-Assessment Exercise

Time to go to work!





## Getting Started

- **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:** IMPROVE by exploring high achievement-related practices

21

## STEP 1: Rating Areas

*Scale from LOW to HIGH achievement*

- Select **Low** if your system has no workable practices in place for addressing this area – very low capacity and performance.
- Select **Medium** if your system has some workable practices in place with moderate achievement, but could improve – some capacity in place.
- Select **High** 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.

22



## STEP 2: Ranking Areas

*Scale from LOW to HIGH priority*

- Current or expected challenges
- Customer or stakeholder impact: reliability; quality; timeliness
- Consequences of not improving: compliance; cost; credibility; health; safety
- Urgency – near or long term need
- Community priorities

23

## STEPS 1 & 2: Rating and Ranking Areas

*Self-Assessment Demonstration*

Key Management Area	Management Area Description	Step 1: Rate Achievement (Low-High)	Step 2: Rank Priority (Low-High)
1. Water Resource Adequacy (e.g., water quantity)	<ul style="list-style-type: none"> <li>• My system is able to meet the water or sanitation needs of its customers now and for the foreseeable future.</li> <li>• My utility or community has performed a long-term water supply and demand analysis. (Applies to drinking water systems only.)</li> <li>• 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.)</li> </ul>	Low	High
2. Product Quality (e.g., clean & safe water)	<ul style="list-style-type: none"> <li>• My system is in compliance with permit requirements and other regulatory or reliability requirements.</li> <li>• My utility meets local community expectations for the potable water and/or treated effluent and process residual that it produces.</li> </ul>	Medium	High
3. Customer Satisfaction	<ul style="list-style-type: none"> <li>• Customers are satisfied with the services my system provides.</li> <li>• My system has procedures in place to receive and respond to customer feedback in a timely fashion.</li> </ul>	High	Medium
4. Community Sustainability & Economic Development	<ul style="list-style-type: none"> <li>• My utility is aware of and participating in local and regional community and economic development planning activities.</li> <li>• My utility's goals also help to support overall watershed and source water protection, and community economic goals.</li> </ul>	Low	Low
5. Employee & Leadership Development	<ul style="list-style-type: none"> <li>• Training programs are in place to retain and improve institutional knowledge.</li> <li>• Opportunities exist for employee skills development and career enhancement.</li> <li>• Job descriptions, performance expectations, and codes of conduct are established.</li> </ul>	High	Medium
6. Financial Viability	<ul style="list-style-type: none"> <li>• 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&amp;M, debt servicing, and other costs are covered).</li> <li>• My utility discusses rate requirements with our customers, board members, and other key stakeholders.</li> </ul>	Low	High

24

## STEPS 1 & 2: Rating and Ranking Areas

### Self-Assessment Demonstration

- Use the table on Page 3 of Tab 4 to rate your utility's **achievement** rate in the 10 key management areas: L –low, M – medium, H-high.
- Use the table on Page 3 of Tab 4 to rate the **priority** of each the 10 key management areas for your utility: L –low, M – medium, H-high.
- Take a few minutes to discuss your results at your table.

25

## STEP 3: Plotting Results

### Self-Assessment Demonstration

Key Management Area	Management Area Description	Step 1: Rate Achievement (Low-High)	Step 2: Rank Priority (Low-High)
1. Water Resource Adequacy (e.g. water quantity)	<ul style="list-style-type: none"> <li>My system is able to meet the water or sanitation needs of its customers now and for the reasonable future.</li> <li>My utility or community has performed a long-term water supply and demand analysis. (Applies to drinking water systems only)</li> <li>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)</li> </ul>	Low	High
2. Product Quality (e.g. clear & safe water)	<ul style="list-style-type: none"> <li>My system is in compliance with permit requirements and other regulatory or reliability requirements.</li> <li>My utility meets local community expectations for the potable water and/or treated effluent and process residual that it produces.</li> </ul>	Medium	High
3. Customer Satisfaction	<ul style="list-style-type: none"> <li>Customers are satisfied with the services my system provides.</li> <li>My system has procedures in place to receive and respond to customer feedback in a timely fashion.</li> </ul>	High	Medium

Rating (Achievement)	High		CS	
	Medium			PR
	Low			NR
		Low	Medium	High
				Ranking (Priority)

26

## STEPS 3 & 4: Plotting Results and Focusing Attention

### Self-Assessment Demonstration

- Use the table on Page 5 of Tab 4 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):
  - High – H – Achievement
  - Medium – M - Priority

Rating (Achievement)	High		CS	
	Medium			
	Low			
		Low	Medium	High
		Ranking (Priority)		

27

## STEPS 3 & 4: Plotting Results and Focusing Attention

### 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)	High		CS, ED	
	Medium	OO		PQ
	Low	CE		WA, FV
		Low	Medium	High
		Ranking (Priority)		

28



## Self-Assessment Discussion Questions

- Where is your utility strong? Why?
- Where is there the most room for improvement? Why?
- What are your areas of focus?
  - Why are they a priority?
  - Why is performance low?
    - Technical capacity?
    - Financial capacity?
    - Managerial capacity?
- What are the commonalities and differences among table participants?

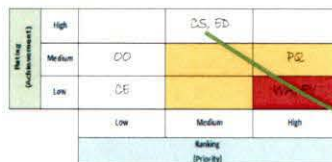
Tables Report Out

29

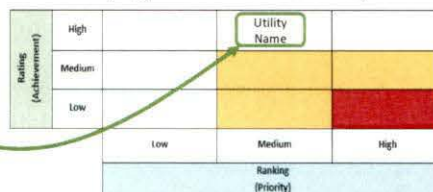
## Plotting Results On the Wall

- Using the provided stickers for your utility, place a sticker on each of the 10 Key Management Boards located around the room in each of the same boxes that you recorded on your own plot.

Your Utility Plot



One of 10 boards located around the room  
(e.g. **Consumer Service**)



30



# Lunch

*Guest Speakers*



# Improving Outcomes

Creating a Plan, Taking Action, Measuring Results



## Tips from Previous Improving Outcomes Exercises

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

33

## Stakeholder Understanding and Support

- Examples of High Achievement:
  - Capital improvement plan or other document that summarizes utility priorities and can be shared with utility board
  - Establish standard operating procedures for utility staff that address communication
- Possible Changes Needed:
  - Educate stakeholders about utility needs
  - Create ongoing opportunities for stakeholders and utility to interact (e.g., tours of facility)

34

## Infrastructure Stability

- Examples of High Achievement:
  - Capital improvement plan
  - Inventory of system components, location, installation date, and condition
  - Understanding of system operating parameters (e.g., pressure)
- Possible Changes Needed:
  - Making time to support an incremental approach (e.g., maintenance and repair driven)
  - Ability to do smaller projects and upgrades annually

35

## Financial Viability

- Examples of High Achievement:
  - Funds set aside for reserves
  - Asset management plans, short and long term plans, and quarterly budget reviews
  - Utility board is knowledgeable about financial issues and system maintenance and repairs
- Possible Changes Needed:
  - Good practices in place for rates and shut-offs
  - Better communication between elected officials, utility staff and consumer
  - Independent rate study
  - Document priorities for system improvements

36



## Employee and Leadership Development

- Examples of High Achievement:
  - Written job descriptions
  - Clear performance expectations
  - Staff are cross-trained
- Possible Changes Needed:
  - Develop neighboring system relationships for staff to learn from each other
  - Create merit-based initiatives to reward high performance (e.g., additional leave days, recognition, monetary awards)

37

## Operational Resiliency

- Examples of High Achievement:
  - Emergency response plans, operations plans, shut-off checklists for equipment
  - Drill emergency response plan
  - Certify staff and board members
- Possible Changes Needed:
  - Ensure staff and board know where all emergency documentation is kept
  - Have contractor support lined up in case of emergency

38



## Table Activity

- Using the **Improving Outcomes Worksheet** provided at your table (also a copy in Tab 6) each table should complete an improvement worksheet for one of the low achievement/high priority management areas identified by one of your table members
- After picking a management area, share perspectives on:
  - What will constitute “high achievement” in this management area?
  - What changes will the utility need to make to improve performance?
  - How could you track your performance progress?
  - What will be the biggest challenges to performance improvement?

39

## Table Activity

Using *IMPROVING OUTCOMES WORKSHEET*

IMPROVING OUTCOMES WORKSHEET	
Key Management Area:	Table Number:
Why was this management area ranked low achievement?	
What will constitute “high achievement” in this management area?	
What are the causes of your achievement gap?	
What changes will the utility need to make to improve performance?	
Who will need to be involved for these changes to take place?	
How could you track your performance progress?	
What will be the biggest challenges to performance improvement?	
Are there resources that you are aware of that support improving performance in this management area?	

Tab 6 in your notebook

Tables Report Out

40

# Tools, Guides, and Other Resources

Resources Available for Your Use



## Improving Outcomes: Additional Resources

- Extensive Compilation of Tools and Resources
  - Excel Print Out in Your Packet (Tab 8 – Appendix III)
  - Electronically Available on EPA and USDA's websites
- Organized by Key Management Areas
- Covers Resources from NRWA, USDA, EPA, RCAP, AWWA, WEF and others
- Supplemental to Locally Available Technical Assistance and Resources
- UK and WVU Resources (Tab 9)

## Tools and Resources Demonstration

[illegible]

## Resource Highlights

- Three (Typically High Priority) Management Areas
  - Operational Optimization – Water/Energy Efficiency
  - Financial Viability
  - Stakeholder Understanding and Support
- Areas Typically of High Interest to Utility Managers and The Backbone of A Sustainably Managed System







## Operational Optimization

### *Water/Energy Efficiency*

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

- Water Conservation
- Energy Efficiency
- Renewable Energy

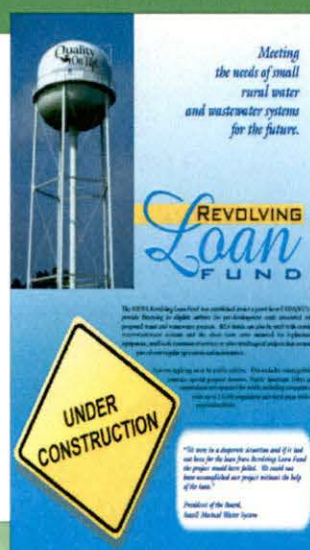


47

## Financial Viability

#### NRWA: Revolving Loan Fund

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

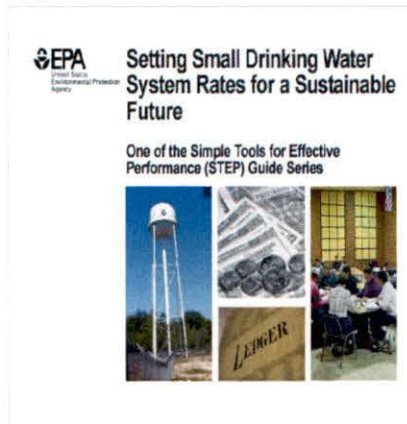


48

## Financial Viability

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

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



49

## Financial Viability

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

- Understanding Financial Statements
- Using Financial Ratios



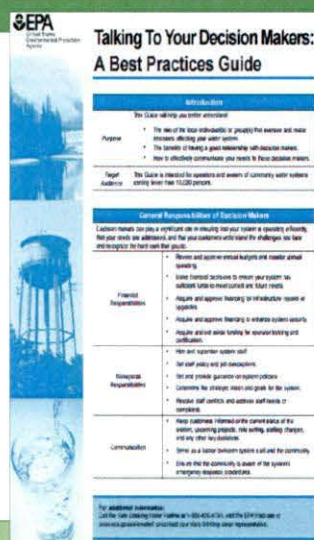
50

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



## Stakeholder Understanding and Support

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





## 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



## 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 have at least one action for each priority management area (actions 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 Actions	
<b>Description:</b>	<input type="checkbox"/> Action <input type="checkbox"/> Management Area(s) addressed <input type="checkbox"/> Objective(s)
<b>Timeline:</b>	<input type="checkbox"/> Start date <input type="checkbox"/> Milestones <input type="checkbox"/> Target completion date
<b>Responsible Party (or Parties):</b>	
<b>Required Resources (on hand or needed):</b>	
<b>Challenges to Address:</b>	
<b>Review Process:</b>	<input type="checkbox"/> Performance indicators or measures <input type="checkbox"/> Status reports and updates <input type="checkbox"/> Frequency/cycle
<b>Other Notes:</b>	

Source: Adapted from the Sustainable Management Action Plan Worksheet, 2015, by the author.

Tab 5 in your notebook

55

# 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).
- ✓ 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 Actions	
<b>Description:</b>	<input type="checkbox"/> Action <input type="checkbox"/> Management Area(s) addressed <input type="checkbox"/> Objective(s)
<b>Timeline:</b>	<input type="checkbox"/> Start date <input type="checkbox"/> Milestones <input type="checkbox"/> Target completion date
<b>Responsible Party (or Parties):</b>	
<b>Required Resources (on hand or needed):</b>	
<b>Challenges to Address:</b>	
<b>Review Process:</b>	<input type="checkbox"/> Performance indicators or measures <input type="checkbox"/> Status reports and updates <input type="checkbox"/> Frequency/cycle
<b>Other Notes:</b>	

Source: Adapted from the Sustainable Management Action Plan Worksheet, 2015, by the author.

Step 1: Fill out your top three priority management areas from the Self Assessment exercise.

56

For Example...

## Priority Management Areas:

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

57

## 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 a line one action for each priority management area to address multiple management areas.
- ✓ Address 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:**

Describe action:

- ✓ 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:**

Monitor Progress:

- ✓ Performance indicators or measures:
- ✓ Status reports and updates:

Frequency:

**Other Notes:**

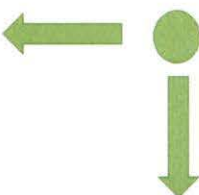
Step 2: Choose an action that you could take to make improvements in one of your Priority Management Areas.

58

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

59

## Action Plan Worksheet

**SUSTAINABLE MANAGEMENT ACTION PLAN WORKSHEET**

**Instructions:**

- ✓ Use your top three priority management areas - those provided above from the self-assessment activity.
- ✓ Use the improvement action that you will undertake to address the priority management area - you should have identified one or more (for each priority management area) actions that address multiple management areas.
- ✓ Fill out the details in the table below for each improvement action separately (1, 2, and three per action).

**Priority Management Areas:**

- 1.
- 2.
- 3.

Improvement Action:
Description:
✓ Action:
✓ Response (if already addressed):
✓ Objective:
Timeline:
Start date:
✓ Milestones:
✓ Target completion date:
Responsible Party (or Parties):
Relevant Resources (on hand or needed):
Challenges to Address:
Success Metrics:
Performance Indicators or Measures:
✓ Reporting and updates:
Frequency:
Other Notes:

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

60

## For Example...

<b>Description:</b>	✓ Limit the carry-forward balance to a fixed amount and increase service deposits to discourage customers who move frequently or avoid paying their bills.
✓ Action	
✓ Management Area(s) addressed	✓ Financial Viability
✓ Objective(s)	✓ Reduce the amount of money lost to unpaid bills
<b>Timeline:</b>	✓ June 2013: Start - Draft new carry-forward balance allowance and new service deposit requirements for new customers
✓ Start date	
✓ Milestones	✓ July 2013: Propose and approve new balance and deposit requirements at board meeting
✓ Target completion date	August 2013: Notify customers of new requirements
	✓ September 2013: Completion - Implement new balance and deposit requirements

61

## For Example...

<b>Responsible Party (or Parties):</b>	✓ Bill Smith ✓ Jane Anderson
<b>Relevant Resources (on-hand or needed):</b>	✓ Example ordinance text created by other utilities to support the desired policy change
<b>Challenges to Address:</b>	✓ Public pressure on board members to reject rate increases
<b>Review Process:</b>	✓ Milestone dates met
✓ Performance indicators or measures	✓ Weekly progress checks with utility director relative to identified milestones
✓ Status reports and updates frequency/cycle	
<b>Other Notes:</b>	✓ Conduct calls with each board member to explain the need for the policy change and answer their questions

62



# Next Steps

Where do we go from here?



## Next Steps for Your Utility

### UTILITY'S NEXT STEP

#### NEXT STEPS FOR YOUR UTILITY

View this presentation to learn more about the next steps for your utility. The presentation includes information on the next steps for your utility, the next steps for your utility, and the next steps for your utility.

Time to complete	Recommended activities
1-4 weeks after the workshop	<p>Hold a follow-up meeting within your system - include any utility managers or members from all departments at your utility, and/or other staff members who can help with implementation-related activities. This can:</p> <ul style="list-style-type: none"> <li>• Discuss results of the assessment activity</li> <li>• As necessary, plan the follow-up activities with respect to equipment that work was accomplished during the workshop - see an overview of the next assessment workshop in the next section, available from EPC and EPC</li> <li>• Consider the preliminary utility improvement plan developed</li> </ul> <p>Your workshop facilitator or technical assistance provider will contact you for one of two data gathering or technical assistance needs as you move through the workshop materials, including help in completing the preliminary improvement plan developed.</p>
4-8 weeks after the workshop	<p>If they have not already been involved in the process up to this point - consider reaching out to utility board members and/or community leaders (e.g., city manager or mayor) whose roles relate to or influence utility operations.</p> <ul style="list-style-type: none"> <li>• Update the workshop materials and the results of the follow-up meeting</li> <li>• If appropriate, plan the follow-up activities with respect to equipment that work was accomplished during the workshop - see an overview of the next assessment workshop in the next section, available from EPC and EPC</li> <li>• Share your preliminary utility improvement plan and modify the plan based on their feedback, as needed</li> <li>• Obtain any necessary approval needed to move forward with implementing the utility improvement plan</li> </ul> <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 site visit or other meeting will be scheduled.</p>
8-12 weeks after the workshop	<p>Begin to implement the utility improvement plan, based on feedback identified in EPC's improvement plan assessment</p>

Tab 7 in your notebook

## Next Steps for Your Utility

- 1-4 weeks
  - Review and update self assessment
  - Complete preliminary action plan
- 4-8 weeks
  - Reach out to board and community leaders
  - Review and update action plan
  - Gain final approval for action plan
- 8-12 weeks
  - Reach out to key organizations for assistance
  - Begin implementing the action plan
- 12-15 weeks
  - Hold follow up meeting to assess progress and adjust as needed

65

## Next Steps for Your Utility

- Ongoing
  - Hold regular meetings to assess Action Plan activities
  - Periodically, revisit the Self-Assessment activity to identify emerging Priority Management Areas
  - Complete new Action Plan Worksheets as additional Priority Management Areas are identified
  - Share success stories and challenges with technical assistance providers

66

## Key Organizations in Kentucky

- KY Water Resources Research Institute (KWRRRI)
- KY Division of Water
- KY Division of Compliance Assurances
- 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

67

## Feedback Session

*Please complete your evaluation forms.*

Thank you!

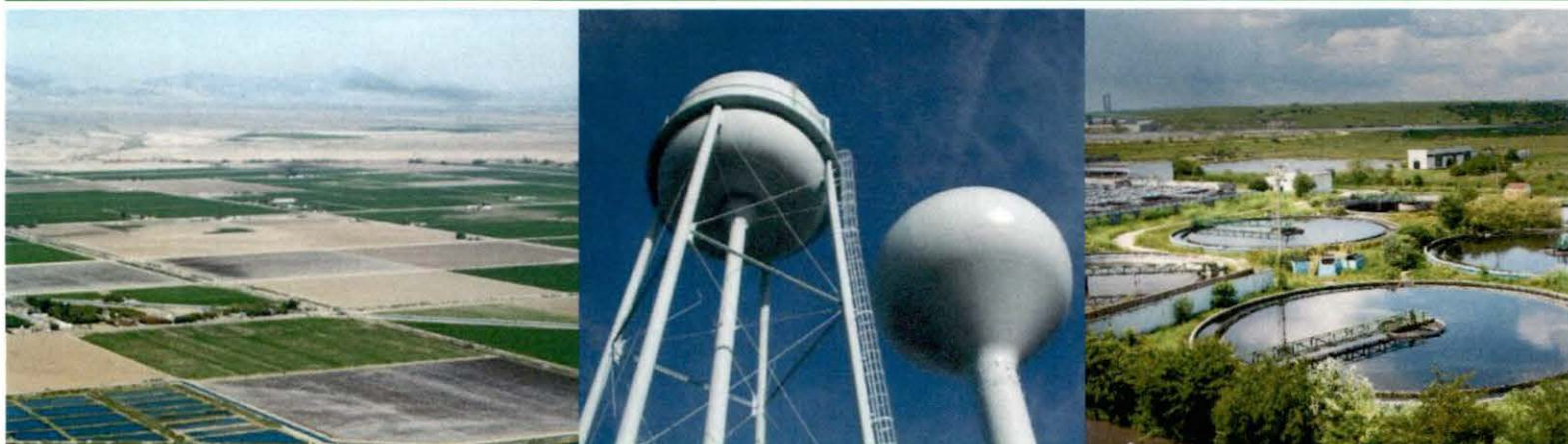






# **Workshop in a Box:**

## **Sustainable Management of Rural and Small Systems Workshops**



United States  
Environmental Protection  
Agency



## TABLE OF CONTENTS

Introduction .....	2
Supplemental Materials .....	4
Checklist: What you need for a Successful Workshop .....	5
Determining What Type of Workshop you Will Host .....	6
Workshop Preparation Timeline.....	9
Creating an Agenda .....	11
The ‘Working Lunch’ .....	15
Promoting the Workshop .....	16
Managing Registration.....	19
Preparing Materials .....	20
Executing the Workshop.....	22
Post-Workshop Follow-Up.....	28
Acknowledgements .....	30

# INTRODUCTION

## Background & Purpose

This *Workshop in a Box* was developed as a collaborative effort between the United States Department of Agriculture (USDA) and the United States Environmental Protection Agency (EPA). It supports rural and small water and wastewater systems in addressing their unique challenges, and in more effectively providing sustainable services to their communities.

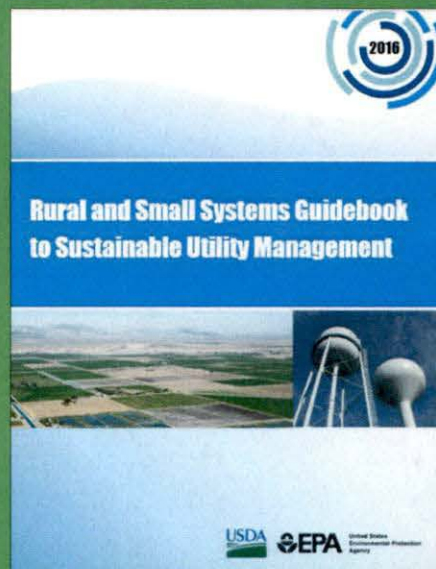
The *Workshop in a Box* is a packet that contains a series of materials and instructions for utilities, technical assistance (TA) providers, water sector associations, and trainers. The packet supports conducting workshops based on the ten key management areas of sustainably managed systems (management areas), as described in the *Rural and Small Systems Guidebook to Sustainable Utility Management (Guidebook)*. The *Guidebook* is included as a resource in this *Workshop in a Box* packet. The *Workshop in a Box* provides guidance for workshop preparations, execution, and copies of all materials to run a successful workshop on sustainable utility management improvement.

The information presented in *Workshop in a Box* and *Guidebook* draws on the results of four pilot workshops conducted by EPA and USDA, and 140+ workshops conducted by USDA, EPA, trainers and TA providers from 2013–2016 across all 50 states. The content also draws on feedback from managers of rural and small systems who attended those workshops, and feedback from the trainers and TA providers who have conducted the workshops. Additionally, several small systems and water systems operations specialists provided input as the packet and guide were developed.

Based on the approaches used and the lessons learned at these workshops, this *Workshop in a Box* is designed to help organizations host their own workshops. The intended audience for this resource includes rural and small systems managers

### Rural and Small Systems Guidebook

The *Workshop in a Box* is accompanied by a companion resource, the *Rural and Small Systems Guidebook to Sustainable Utility Management*. The *Guidebook* provides background information on the key management areas, as well as instruction and assistance on how to conduct the utility assessment process that is used in the workshops. The *Guidebook* and the *Workshop in a Box* support rural and small water and wastewater utilities in their common mission to become more successful and resilient service providers.





looking to improve their utility outcomes and management practices, as well as associations and organizations who support small systems and seek to host educational events.

At each workshop, participants are given an introduction to the ten key management areas, and then asked to conduct a short self-assessment of their operations in relation to the management areas. Participants also identify management improvement opportunities at their systems based on the assessment. The workshop further provides an opportunity for participants to share experiences from their systems to better understand how to implement improvements and have a basis for working with staff and community members to operate more effectively. Participants are also introduced to a compendium of resources that could help them implement the improvements identified during the assessment.

By making improvements in any of the ten key management areas through methods outlined in the *Workshop in a Box* and the *Guidebook*, at a pace consistent with their most pressing challenges, systems will be able to deliver increasingly efficient, higher-quality services.

## Document Organization and Supplementary Materials

The information in this *Workshop in a Box* is organized in the order in which a workshop would be executed. It begins in the planning stages, moves through the steps of preparation, and concludes with the workshop itself. Supplemental materials are also included as attachments to the main document. These materials are everything needed to conduct the workshop, from promotional brochures and informational emails to presentation slides and worksheets. Many of the materials are presented as templates that the user can customize with specific event dates and other information. The supplemental materials included in the *Workshop in a Box* packet are described on the following page.



# SUPPLEMENTAL MATERIALS

---

The materials listed below have been developed to support the promotion and facilitation of the workshops.

## Templates

*Templates are meant to be customized by the user to add event-specific information (such as dates, times, locations, speaker names, etc.). Areas for the user to add information are highlighted in blue.*

**Template 1a:** Multi System Workshop Agenda

**Template 1b:** Team Exercise Workshop Agenda

**Template 2a:** Promotional Email for Multi System Workshop

**Template 2b:** Promotional Email for Team Exercise Workshop

**Template 3:** Promotional Brochure

**Template 4:** Sign-in Sheet for Multi System Workshop

**Template 5:** Feedback Form

**Template 6:** Decision Maker Invite Letter

**Template 7:** Decision Maker Invite Flyer

**Template 8:** Workshop Participant Talking Points Handout

## Documents

*Documents are materials that are not meant to be modified by the user. These contain specific information that has been modified and developed over time by subject matter experts.*

**Document 1a:** Workshop Slides for Multi System Workshop

**Document 1b:** Workshop Slides for Team Exercise Workshop

**Document 2:** Self-Assessment Worksheet

**Document 3:** Improving Outcomes Worksheet

**Document 4a:** Resources Guide for Rural and Small Systems (electronic spreadsheet)

**Document 4b:** Resources Guide for Rural and Small Systems (table for printing)

**Document 5:** Sustainable Management Action Plan Worksheet

**Document 6:** Rural and Small Systems Guidebook to Sustainable Utility Management

**Document 7:** Next Steps for Your Utility

**Document 8:** Next Steps for Workshop Facilitators & Technical Assistance Providers

# CHECKLIST: WHAT YOU NEED FOR A SUCCESSFUL WORKSHOP

---

- ✓ Agenda
- ✓ Facilitator/Instructor
- ✓ Promotional Materials
- ✓ Registration and Sign-in Materials
- ✓ Presentation Slides and Talking Points
- ✓ Handouts and Other Meeting Materials:
  - ✓ Self-Assessment Worksheet
  - ✓ Improvements Worksheet
  - ✓ Resources Guide for Rural and Small Utilities
  - ✓ Sustainable Management Action Plan Worksheet
- ✓ Workshop Evaluation Form

# DETERMINING WHAT TYPE OF WORKSHOP YOU WILL HOST

This *Workshop in a Box* supports two workshop formats: a Multi System Workshop, and a Team Exercise Workshop. The workshop format dictates how the workshop will be run.

	Multi System Workshop	Team Exercise Workshop
<b>Organizer</b>	Association or organization	Individual utility management (water or wastewater)
<b>Attendees</b>	Participants from multiple utilities (water or wastewater), including: <ul style="list-style-type: none"><li>• Utility operators and managers</li><li>• Decision makers (e.g., mayors, town council members, town managers, utility board members)</li></ul>	Participants directly associated with the utility (potentially including utility staff, board members, community leaders and decision makers, and community stakeholders)
<b>Objectives</b>	<ul style="list-style-type: none"><li>• Introduce participants to the ten management areas</li><li>• Equip participants to use the self-assessment exercise</li><li>• Produce a list of potential improvement opportunities</li><li>• Equip participants to discuss improvement opportunities within the community</li></ul>	<ul style="list-style-type: none"><li>• Educate staff and stakeholders about the ten management areas</li><li>• Set improvement priorities</li><li>• Communicate improvement priorities to staff, decision makers, and stakeholders</li></ul>
<b>Facilitator</b>	An association/organization staff member or a third-party facilitator (e.g. TA provider)	A utility team leader or a third-party facilitator (e.g. TA provider)

## Multi System Workshop

A **Multi System Workshop** is typically sponsored and run by an association or organization that lends assistance to utilities. In this format, the sponsor would invite workshop attendees from several different utilities to participate in a group learning exercise.



The target audience for a Multi System Workshop is staff members who have management responsibilities at their utilities, and decision makers who have connection to utility policies and budgets (e.g., mayors, town council members, town managers, utility board members). For very small systems, the appropriate participant may be a manager/operator, and for somewhat larger systems, this may be an executive director. At minimum, a utility participating in this workshop should send staff with cross-operational management responsibilities, but may also choose to send additional staff (such as a certified operator) to participate. Utilities may also choose to have a board member or city manager accompany the participating manager. Decision makers are critical attendees at workshops, because they can help to promote the implementation of new practices and programs following the workshop, based on workshop discussions and results.

Objectives of a Multi System Workshop include:

- Introduce participating utilities to the ten management areas;
- Equip utilities to utilize the self-assessment exercise on their own;
- Develop a list of primary improvement opportunities for utilities;
- Provide an opportunity for participants to share challenges and successes with peer organizations; and
- Provide participants with materials that they can bring back to their decision makers and other leaders to generate motivation for taking action on the improvement opportunities that they identified.

Often, the participants in a Multi System Workshop use the information that they learned at the event to hold a Team Exercise Workshop at their own facility.

## Team Exercise Workshop

A **Team Exercise Workshop** is held within an individual system as an educational and strategic priority-setting exercise.

There are two types of Team Exercise Workshops:

1. **Team Workshop**, which is attended by only internal staff members of the utility; and
2. **Team-Stakeholder Workshop**, which is attended by utility staff, and some combination of board members and other community stakeholders.

The target audience of a Team Exercise Workshop is a mix of staff members (and in some cases, board members and community stakeholders) who make up a “cross-functional” team. A cross functional team would represent the range of roles that exist at the utility, and may include staff that have responsibility for engineering, operations, accounting/finance, customer service, and maintenance, recognizing that individual staff members may have responsibility for more than one of these functions, as many small systems do not necessarily have specific departments for each of these functions. The meeting organizer should do his/her best to have as many of these roles represented as possible, based on the capacity of the individual utility.

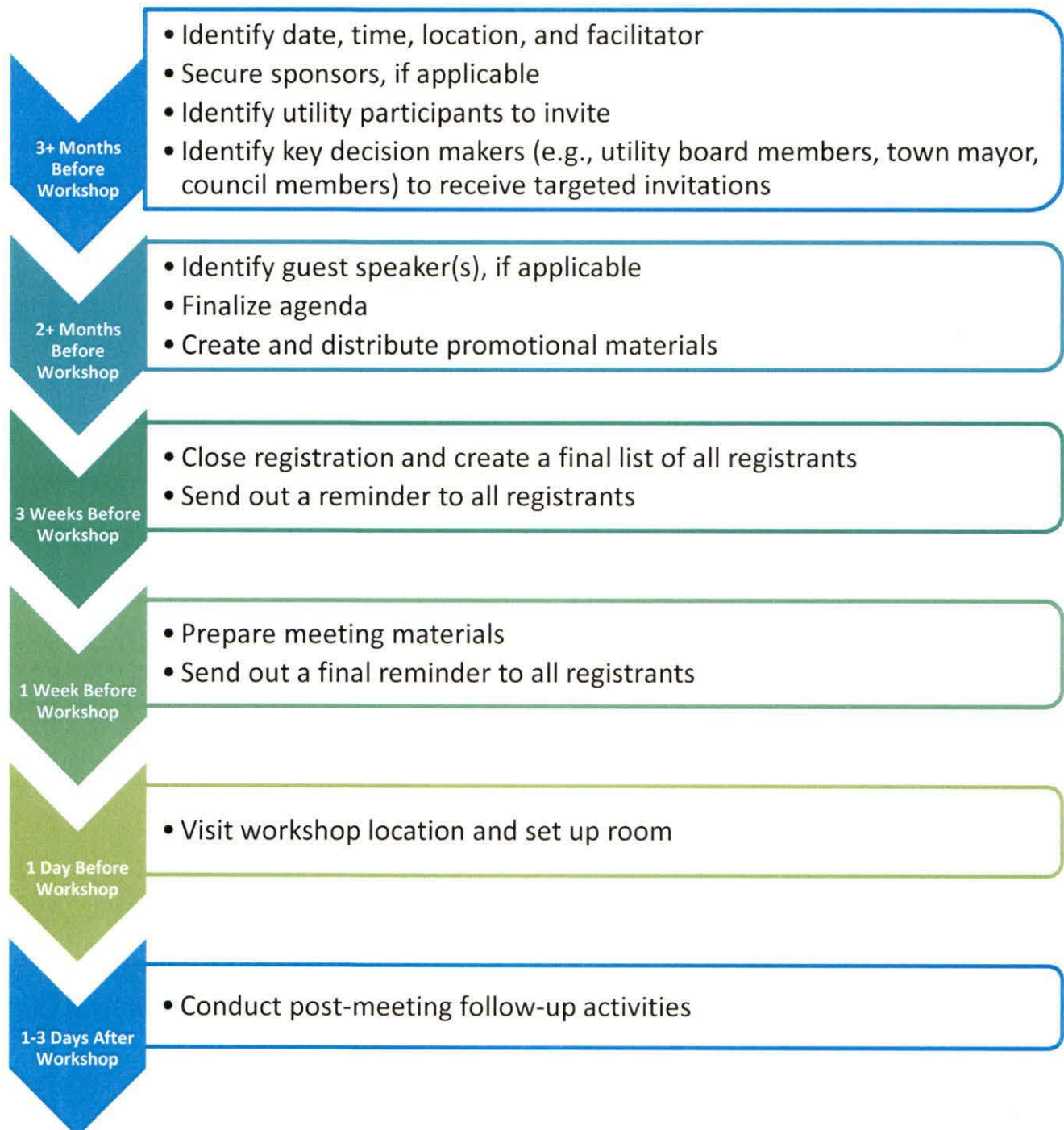
For a Team-Stakeholder Workshop, the meeting organizer should consider carefully who to invite. (Who will add valuable content to the discussion? Who needs to understand the utility’s priorities and challenges?) Possible participants may include board members, a city manager (or similar position), town council members, or citizens and neighborhood group representatives.

The objective of a Team Exercise Workshop is to educate utility staff and stakeholders about the ten management areas, to use the self-assessment exercise to identify priority areas for performance improvement, and to communicate the priority-setting results to the board and community members. Typically, this workshop would be organized and facilitated by a utility team leader. The team leader would be designated to convene the workshop, make the required presentations, and manage discussions among participants, while also directly participating in the discussions. In this way, the team leader is both a facilitator and a direct participant in the workshop. Alternatively, a utility can reach out to a technical assistance provider to undertake this role. There can be advantages to having an outside party provide this support, including allowing all utility staff to stay focused on direct participation.

# WORKSHOP PREPARATION TIMELINE

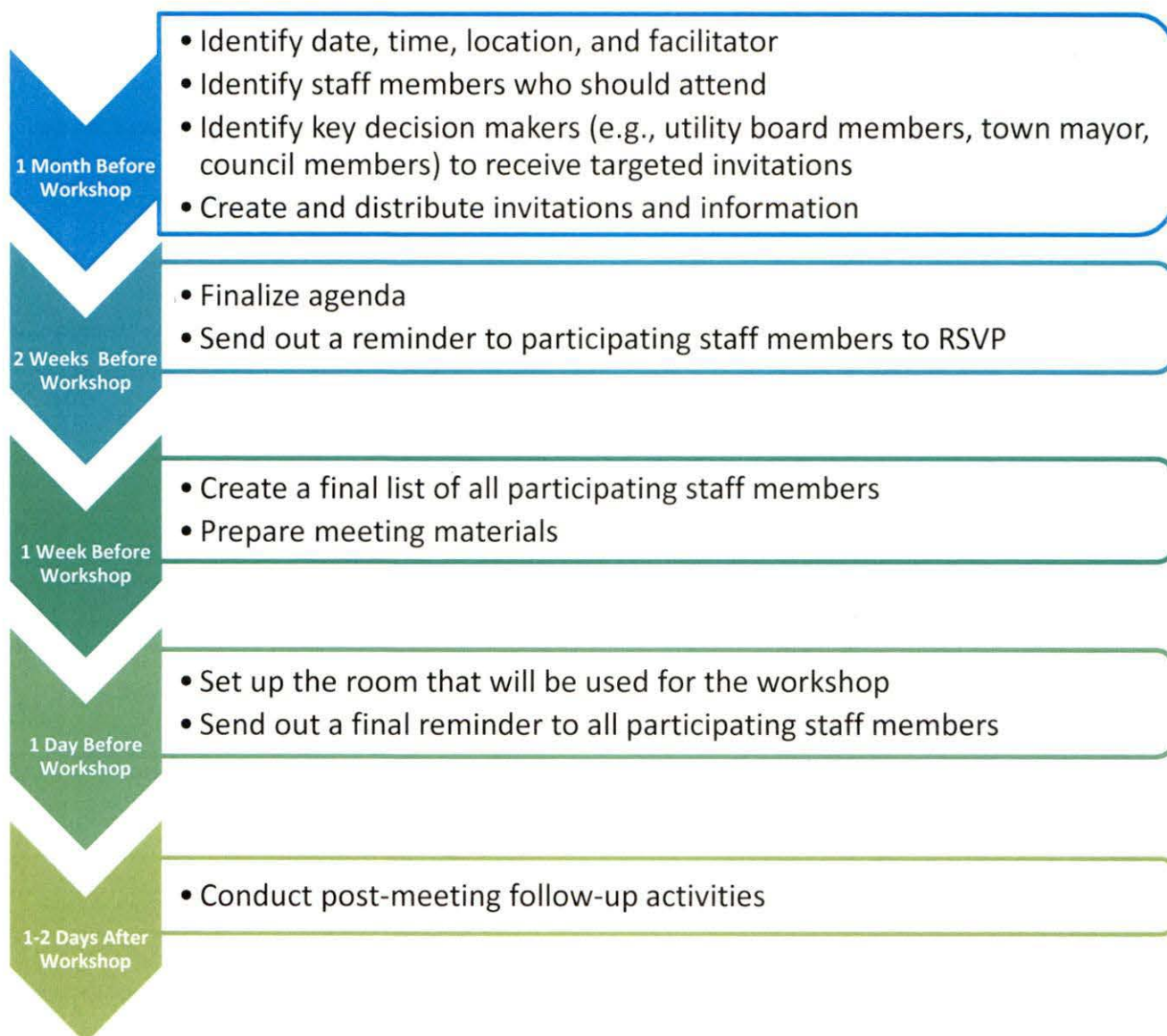
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## Multi System Workshop





## Team Exercise Workshop



# CREATING AN AGENDA

- ✓ Use the sample agenda on the following pages as a guideline for your agenda. Your agenda should use the same sessions as the sample agenda, but may have slightly different time allotments, depending on the number of attendees. The sample agenda is built for approximately 25 attendees—add more time for more attendees, and subtract time for fewer attendees.
- ✓ Identify roles—Who will facilitate the meeting?
- ✓ Find a location—Where will the workshop take place?

**HELPFUL HINT:** Consider holding your workshop either as a stand-alone event, or the day before a larger event (like a conference or regional workshop).

## Materials for this Section

Included in your Workshop in a Box kit are:

*Templates 1a & 1b: Workshop Agenda*

## SAMPLE AGENDA – MULTI SYSTEM WORKSHOP

8:30	Sign-in/Registration
9:00	Introductions and Workshop Objectives
9:15	Session 1: Overview of Key Management Areas – Presentation
9:45	Session 2: Utility ‘Self-Assessment’ Exercise <ul style="list-style-type: none"><li>• Explain ‘Self-Assessment’ (5 minutes)</li><li>• Participants conduct Self-Assessment (30 minutes)<ul style="list-style-type: none"><li>○ Rate utility achievements and rank management priorities</li><li>○ Plot results: achievements vs. priorities</li></ul></li><li>• Table discussion among participants about results (25 minutes)<ul style="list-style-type: none"><li>○ Where is your utility strong? Why?</li><li>○ Where is there the most room for improvement? Why?</li><li>○ What are your areas of focus?<ul style="list-style-type: none"><li>▪ Why are they a priority?</li><li>▪ Why is performance low?<ul style="list-style-type: none"><li>• Technical capacity?</li><li>• Financial capacity?</li><li>• Managerial capacity?</li></ul></li></ul></li><li>○ What are commonalities and differences among table participants’ achievements, priorities, and challenges?</li></ul></li></ul>
10:40	Break

*-Continued on following page-*

<b>10:45</b>	<b>Session 3: Plenary Discussion – Self Assessment Results</b> <ul style="list-style-type: none"> <li>• Tables report out (30 minutes)</li> <li>• Synthesize results (30 minutes)</li> </ul>
<b>11:45</b>	<b>Working Lunch (Optional)</b>
<b>12:45</b>	<b>Session 4: Table Exercise – Improving Outcomes</b> <ul style="list-style-type: none"> <li>• Each table completes an improvement worksheet for one low achievement/high priority management area.</li> <li>• Discussion questions: <ul style="list-style-type: none"> <li>○ What will constitute “high achievement” in this management area?</li> <li>○ What changes will the utility need to make to improve performance?</li> <li>○ How could you track your performance progress?</li> <li>○ What will be the biggest challenges to performance improvement?</li> </ul> </li> </ul>
<b>1:30</b>	<b>Session 5a: Plenary Discussion – Practices, Tools, and Measures Results</b> <ul style="list-style-type: none"> <li>• Table report out</li> <li>• General discussion of findings</li> </ul>
<b>2:00</b>	<b>Break</b>
<b>2:15</b>	<b>Session 5b: Plenary Discussion – Practices Results</b> <ul style="list-style-type: none"> <li>• Synthesis of table discussion results</li> <li>• Local assistance available in key management areas</li> <li>• Presentation of additional tips, tools, and measurement</li> <li>• Reflections: key lessons learned and near term steps</li> <li>• Discuss Sustainable Management Action Plan</li> </ul>
<b>3:00</b>	<b>Session 6: Creating an Action Plan</b> <ul style="list-style-type: none"> <li>• Workshop participants complete a Sustainable Management Action Plan Worksheet</li> <li>• Facilitator reviews “Suggested Next Steps for Your Utility” handout</li> </ul>
<b>4:00</b>	<b>Session 7: Feedback Session</b> <ul style="list-style-type: none"> <li>• Participants Complete Evaluation Form <ul style="list-style-type: none"> <li>○ Are these the right management areas, and how to improve?</li> <li>○ Is self-assessment useful, and how to improve?</li> <li>○ Are tools and tips useful, and how to improve?</li> <li>○ Are measures useful, and how to improve?</li> <li>○ Overall rating of format, flow, presenters, etc.</li> </ul> </li> <li>• Collect evaluation forms</li> </ul>
<b>4:30</b>	<b>Adjourn</b>



## SAMPLE AGENDA – TEAM EXERCISE WORKSHOP

9:30	Introductions and Team Objectives
9:45	Session 1: Overview of Key Management Areas – Presentation
10:20	Break
10:30	<b>Session 2: Utility ‘Self-Assessment’ Exercise</b> <ul style="list-style-type: none"><li>• Team leader explains ‘Self-Assessment’ (5 minutes)</li><li>• Team members conduct Self-Assessment (25 minutes)<ul style="list-style-type: none"><li>○ Rate utility achievements and rank by priority</li><li>○ Plot results: achievements vs. priorities</li></ul></li><li>• Compile and portray team member assessments – team leader</li><li>• Discussion among team members (1 hour)<ul style="list-style-type: none"><li>○ Where are there commonalities and differences among team members? Why?</li><li>○ Where is our utility strong? Why?</li><li>○ Where is there the most room for improvement? Why?</li><li>○ What should be our areas of focus?<ul style="list-style-type: none"><li>▪ Why are they a priority?</li><li>▪ Why is performance low?<ul style="list-style-type: none"><li>• Technical capacity?</li><li>• Financial capacity?</li><li>• Managerial capacity?</li></ul></li></ul></li></ul></li></ul>
12:00	Working Lunch (Optional)
1:00	<b>Session 3: Improving Outcomes</b> <ul style="list-style-type: none"><li>• Assign 2–3 team members to complete an improvement worksheet for one low achievement/high priority management area.</li><li>• Team Member Questions:<ul style="list-style-type: none"><li>○ What will constitute “high achievement” in this management area?</li><li>○ What changes will we need to make to improve performance?</li><li>○ How could we track performance progress?</li><li>○ What will be our biggest challenges to performance improvement?</li></ul></li><li>• Team members report findings</li><li>• Full team discussion – refine and improve findings</li></ul>
2:00	Break

*-Continued on following page-*

**2:15**

**Session 4: Resources and Additional Improvement Ideas**

- Presentation of additional tips, tools, and measurement – team leader
- Team reflections: further ideas for improving performance and resources of interest

**3:15**

**Session 5: Creating an Action Plan**

- Introduce the Sustainable Management Action Plan Worksheet
- Select management areas for focused, near-term attention
- Make assignments for management area leads to prepare plan and identify improvement resources
- Assign timeframes for completion of next steps, including completing a Sustainable Management Action Plan Worksheet for each management area of focus

**3:45**

**Adjourn**

# THE ‘WORKING LUNCH’

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In addition to providing an extra opportunity to add content to the workshop, working lunches can help to keep participants nearby (to ensure that you don’t lose anyone who goes off-site for lunch), and to keep the momentum going (to reduce the likelihood of a post-lunch ‘slump’ in energy). If you choose to utilize a ‘working lunch’ format for your workshop, there are three main options for how to fill the time, which are described below.

## Networking Time

By having the participants remain in the room, they can often benefit greatly from visiting with each other about utility operational issues, either related to the workshop content or separate from the workshop. This is especially useful for Multi System Workshops, where attendees from different systems can trade tips and learn from the experiences of others.

## Working Time

In the event that workshop participants are engaging in in-depth discussions, it is useful to have time set aside at lunch to expand on topics in a less formal setting. This is especially valuable for the self-assessment exercise, which can be as deep of a discussion as you allow it to be—by adding extra time to your agenda for this or other discussions, you will allow participants to get to the “meat” of the issues.

## Guest Speakers

Having guest speakers, such as workshop sponsors or local technical assistance providers, present at lunch provides an opportunity for the sponsors to connect their services directly to management areas of interest that utility participants identified during the self-assessment exercise. Alternatively, presentations by local utility managers on their successes and challenges can also help to ground the management area improvement discussions. The practical context of local, peer utilities can lend substantial credibility and a stronger sense of accessibility to performance improvements.



# PROMOTING THE WORKSHOP: WHO SHOULD ATTEND?

## Multi System Workshop

### TARGET AUDIENCE: UTILITY OPERATORS AND MANAGERS

Utility operators and managers typically make up the largest portion of workshop attendees. They are important to have in attendance because they are most familiar with the utility's day-to-day operations and challenges.

- ✓ Send a promotional email or letter to utility operators and managers in your network. The message should include:
  - Time, date, and location of the workshop
  - Information about the sponsoring organization (who is hosting the event?)
  - Information about the purpose of the workshop (what can participants expect to get out of it?)
  - Workshop agenda
  - Instructions on how to register for the event
  - Instructions about what to bring (relevant materials, lunch, etc.)

**HELPFUL HINT:** *If you have a meeting planning committee or team, consider having each member identify potential participants, and then have each member be responsible for reaching out individually to the participants they identified.*

- ✓ Distribute brochures or any other promotional materials you have developed.
- ✓ Track registration in advance of the meeting and send reminders to registered participants.

### Materials for this Section

Included in your Workshop in a Box kit are:

*Templates 2a & 2b: Promotional Email*  
*Template 3: Promotional Brochure*  
*Template 6: Decision Maker Invite Letter*  
*Template 7: Decision Maker Invite Flyer*

### TARGET AUDIENCE: DECISION MAKERS AND COMMUNITY LEADERS

Decision makers and community leaders are critical attendees at the workshops. They provide policy and budgetary decision support to the utilities. It is helpful to have at least one decision maker or community leader attend with each utility that attends the workshop. They can act as advocates for new practices and programs related to the key management areas following the workshops. Decision makers and community leaders can be a challenging audience to reach. Based on the feedback of utilities and trainers around the country, EPA and USDA have developed specific outreach resources for workshop hosts seeking to reach this important audience.

- ✓ Create a list of decision makers and community leaders to target for invitations to the workshop.
- ✓ Modify the Decision Maker Invite Letter (Template 6) and the Decision Maker Invite Flyer (Template 7) to include specific information about your workshop (e.g., date, location, time). Send both items to your targeted invite list. The letter can be used as a hard copy cover letter for a mail-out flyer, or as a cover email when distributing electronically.
- ✓ A few weeks after your letter and flyer are distributed, make follow-up contact with your targeted invite list, either by phone or email. Explain the importance of the workshop, and how local utilities and their communities will benefit from their attendance.

**YOU'RE INVITED!**

## Rural and Small Systems Sustainable Utility Management Workshop

[WORKSHOP DATE/LOCATION]

Dear \_\_\_\_\_,

Clean and safe water is the lifeblood of a healthy rural environment and economy. Without clean and safe water, no community can survive and without the support of its community leaders, no water utility can survive. Today's rural and small utilities face a range of challenges to provide the services that their customers need each day, as well as challenges in planning for the future. Your support is *absolutely critical* to help local utilities address community needs today, as well plan for a thriving future.

The [Association name] invites you to attend a workshop on [date] at [location] that will help your community's utilities provide affordable, clean and safe, and dependable water. Learn from workshop leaders and other utilities about how to address today's challenges, while planning for the future to improve utility success over time and bring real benefits to your community.

At the workshop, you will have the opportunity to learn new strategies and participate in discussions about many topics including:

- How to assess your utility's strengths and areas for improvement to help ensure that your community has affordable, reliable clean and safe water now and in the future
- Hear from other utility managers and local officials about ways in which they are addressing similar challenges
- How to protect against costly infrastructure failures and water outages
- Important resources available from USDA and EPA to help your utility and community

**We know your time is limited, but please attend this important workshop!** You will learn how this initiative can benefit your community, share information with others about your community's challenges, and the work USDA and EPA are doing in support of small and rural utilities, and easy ways for you to get involved in this Rural and Small System Sustainable Management Initiative.

**REGISTER HERE: [LINK]**

We look forward to seeing you there!

[SIGNATURE/LOGO]



USDA EPA

**WORKSHOP DATE:**

## RURAL AND SMALL SYSTEMS SUSTAINABLE UTILITY MANAGEMENT WORKSHOP

**COMMUNITY LEADERS ENCOURAGED TO ATTEND!**

The economic strength and public health of communities across the United States depends on water systems that reliably deliver clean and safe water. Aging infrastructure, such as pipes and pumps, can fail, leading to water outages for homes and businesses, or the release of untreated sewage into homes, roads, and surface waters. Water and wastewater utilities often lack the resources needed to perform the ongoing equipment maintenance and infrastructure replacement required to ensure reliable, safe service now and into the future.

Help your utilities provide affordable and dependable, clean and safe water by attending this powerful, highly regarded workshop and make your water systems a community priority. Learn from workshop leaders and other utilities about how to address the challenges of today while planning for the future to improve utility success over time and bring real benefits to your community.

**Protect against costly infrastructure failures and water outages**

**Support economic development in your community**

**Ensure that your community has safe and reliable water now and in the future**

**Assess the current viability of your local utilities and plan for the future**

Hosting Association Name: \_\_\_\_\_

Workshop Location: \_\_\_\_\_

☒ Registration Information

## Team Exercise Workshop

*At a team workshop, it is helpful to have a mix of operators and managers in attendance. It is equally beneficial to involve decision makers and community leaders at the workshop to help them gain a better understanding of the utility's strengths and challenges. Some utilities may choose to hold a staff-only workshop and then hold a second workshop that is open to community stakeholders, decision makers, and other community leaders.*

- ✓ Announce the workshop to your staff, either at an internal meeting or by email/letter, at least two weeks in advance of the event. Announce the workshop by email/letter to invited stakeholders if you are planning to open the workshop up to external participants. Include information about:
  - Who should plan to attend—all staff members/stakeholder groups, or only specific ones?
  - Time, date, and location of the workshop
  - Information about the purpose of the workshop (what you hope to accomplish)



- Workshop agenda
- Instructions on how to register for the event
- Instructions about what to bring (relevant materials, lunch, etc.)
- ✓ Distribute promotional materials to intended participants
- ✓ Send reminders to participants one week in advance, and then again the day before the workshop

## **Tips from Other Workshop Hosts: How to Reach Decision Makers and Community Leaders**

*To attract more leaders, we put on our workshop with the Community Loan Fund of New Hampshire, which provides funding for co-ops. They invite decision makers, which helped us get a lot of them there.*

—Donny, NH

*We split our workshop up into two 3-hour evening sessions, which makes it easier for board members and community leaders to attend than an all-day session.*

—Connie, IN

*Find the most popular food establishment in your area and have them cater the meeting – your attendance will go way up!*

—John, MO

*We make personal phone calls and do visits to systems to recruit their leaders to attend workshops.*

—Tony, SC

*We held a workshop for a town on a Saturday so that the council and the mayor could attend.*

—Mark, WY

*We have workshop trainers fill out the Improvement Plan worksheet with the systems that attend the workshop, and then help them come up with a plan to approach their boards, councils, and stakeholders.*

—Gary & Ben, FL



# MANAGING REGISTRATION

It is a good idea to collect registration information in advance so that you know how many people will attend. This helps to plan for room capacity, create sign-in sheets, print the right number of meeting materials, and anticipate refreshments needs (if you will be providing them). Pre-registration also allows you to have contact information for attendees to use for sending out meeting reminders and other meeting information.

## Multi System Workshop

At minimum, you should collect the participant's name, organization, and email. You may want to consider organizing it in a table or spreadsheet (see example below). Other optional information you may want to collect can include: phone number, address, or dietary preferences (if you plan to have food at the event). There are many ways to collect registration information, depending on your organization's technical capabilities, including:

- Collecting registration by email
- Creating a registration website
- Posting sign-up sheets or a registration phone number at central community locations

### SAMPLE REGISTRATION TRACKING TABLE

Last Name	First Name	Organization	Email
Anderson	Mary	Village Loop Water	manderson@villageloop.com
Johnson	Mike	Lost Lake Sewer District	Mike.johnson@llsd.com
Smith	Joe	City Public Utilities	joesmith@city.gov

## Team Exercise Workshop

When hosting a workshop at your own utility, it is still important to track who will be attending the event to ensure that you will have the right mix of people (appropriate staff members, and board/community members if you plan to invite them). Creating a simple internal RSVP list is an easy way to track this (see example below).

### SAMPLE RSVP LIST

Last Name	First Name	Representing	RSVP – Yes/No?
Alvarez	Steve	Staff (financials)	Yes
King	Anne	Board Member	No
Kelly	Jennifer	Stakeholder (Citizens for Clean Water)	Yes

# PREPARING MATERIALS

One of the last steps in preparing for your meeting is to finalize the meeting materials, which can be adapted from the resources provided in your *Workshop in a Box* packet. Materials should be printed for all attendees to allow everyone to follow along easily. The materials you will need include:

## Agenda

Make sure to add the following information to the agenda template before printing:

- ✓ Start and end time, date, and location
- ✓ Roles (facilitator, speakers)
- ✓ Times for each session

## Sign-in Sheet(s) and Name Tags

These should be pre-populated with the names that you gathered during your registration/attendance tracking process, with extra spaces on the sign-in sheet and blank tags for day-of registrants/walk-ins.

## Presentation Slides

Printing slides for participants is optional, but can be useful for note-taking purposes. At minimum, the slides should be projected and visible to the whole room, with a printed copy for the facilitator to speak from.

## Hand-Outs

For both Multi System and Team Exercise workshops, participants should receive a set of handouts to support their participation in the workshop. The table below indicates which handouts should be provided to participants in each type of workshop.

Key: ✓ Must include      \* Recommended to include, but optional

Handouts	Multi System Workshop	Team Exercise Workshop
Agenda	✓	✓
Self-Assessment Worksheet	✓	✓
Improving Outcomes Worksheet	✓	✓

## Materials for this Section

Included in your Workshop in a Box kit are:

*Templates 1a & 1b: Workshop Agenda*

*Template 4: Sign-in Sheet*

*Template 5: Feedback Form*

*Document 1: Workshop Slides*

*Document 2: Self-Assessment Worksheet*

*Document 3: Improving Outcomes Worksheet*

*Document 4b: Resources Guide for Rural and Small Systems (Table for Printing)*

*Document 5: Sustainable Management Action Plan Worksheet*

*Document 6: Rural and Small Systems Guidebook to Sustainable Utility Management*

*Document 7: Next Steps for Your Utility Handout*

Handouts	Multi System Workshop	Team Exercise Workshop
Sustainable Management Action Plan Worksheet	✓	✓
Resources Guide for Small and Rural Utilities	*	✓
Workshop Slides as handout	*	*
<i>Rural and Small Systems Guidebook to Sustainable Utility Management</i> (preferable to include in hard copy, but at minimum should receive an electronic copy after the workshop)	*	*
Workshop Feedback Form	✓	*
Next Steps for Your Utility Handout	✓	✓

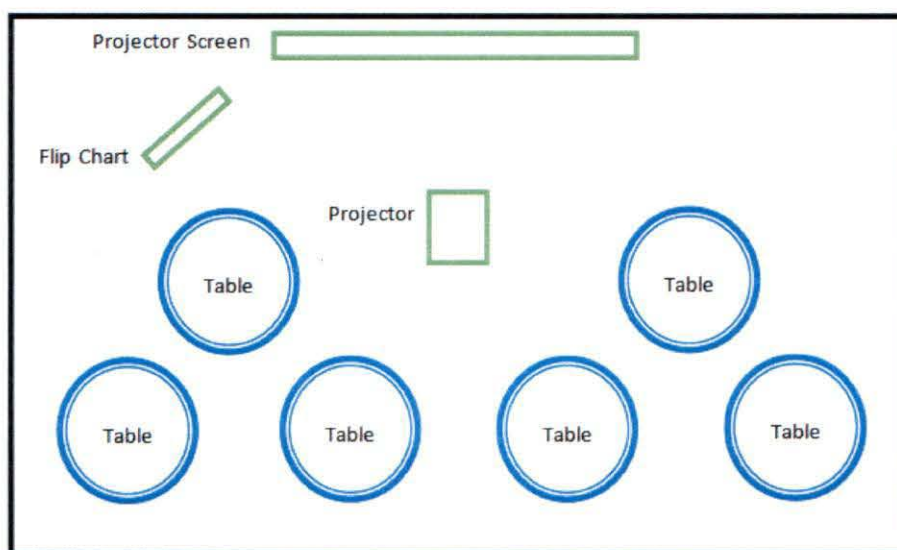


# EXECUTING THE WORKSHOP

## Room Set-Up

The room should ideally be set up in 'round table' style to allow for interaction among workshop participants. If you are conducting a Multi System Workshop, it is best to get a variety of participants at each table (e.g., if a utility has sent more than one representative to the workshop, ask them to sit at different tables—this will help everyone learn from each other and get the most out of the experience). Multi System Workshop table groups should target between 6–8 participants per table. If you are holding a Team Exercise Workshop with board members or outside stakeholders present, you should ask them to spread out and sit at tables with utility staff members. Team Exercise Workshops are typically comprised of 3–15 participants. For fewer than 8 participants, all should be seated at the same table; for more than 8, break up into two tables.

### SAMPLE ROOM CONFIGURATION FOR MULTI SYSTEM WORKSHOP



Other items that you will need for the day of the meeting include:

- ✓ Projector to display the slides at the front of the room
- ✓ Flip chart and markers to record notes during group discussions
- ✓ Printed meeting materials for all participants (refer back to the **Preparing Materials** section for additional details)

# Presenting Workshop Material

While walking through the workshop sessions and slides, the facilitator should refer to the talking points and helpful presentation tips that are included in the slides. These points were developed and modified based on what worked well (and what did not work well) during discussions at the pilot workshops. They can be found in the “Notes” section of the presentation (see example below).

**HELPFUL HINT:** *Prior to the meeting, the facilitator should consider go through the slides to identify any areas that may not make sense to include, or additional points that should be made based on their specific audience.*

## Materials for this Section

Included in your Workshop in a Box kit are:

**Document 1:** Workshop Slides

**Document 2:** Self-Assessment Worksheet

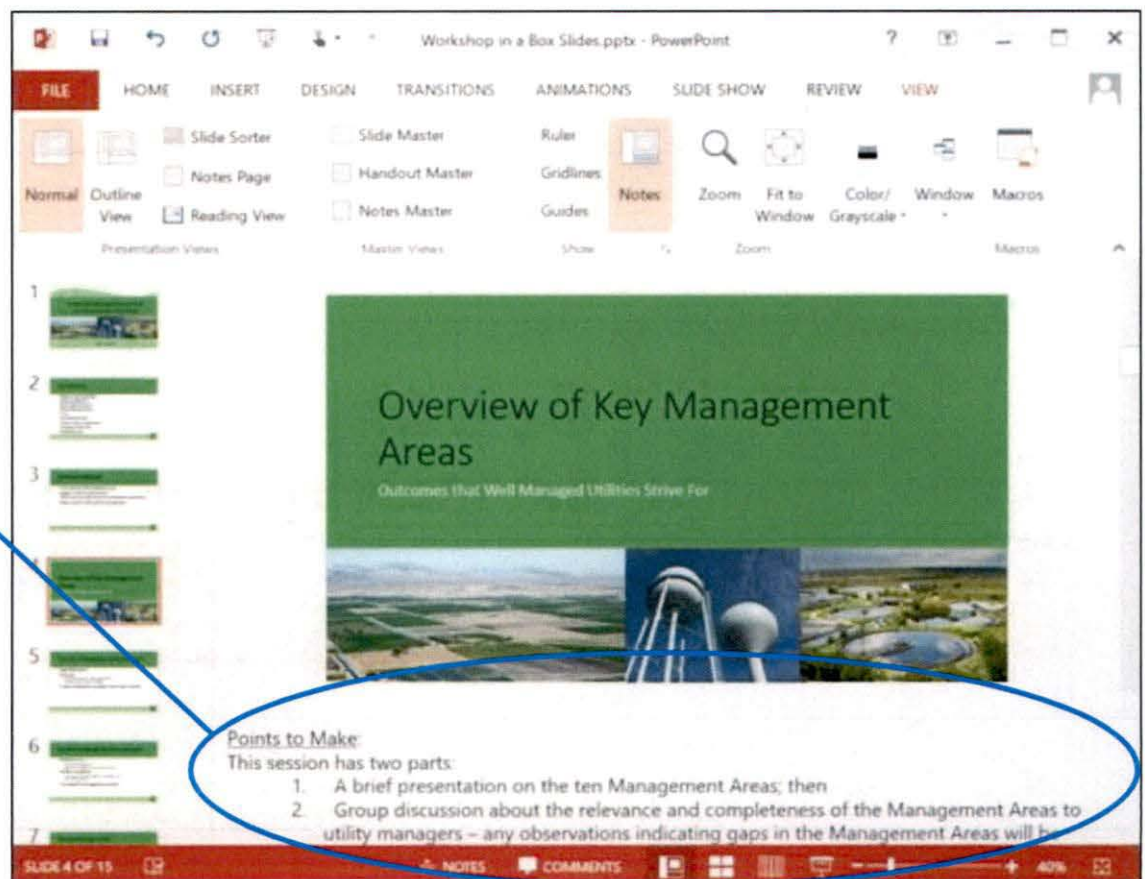
**Document 3:** Improving Outcomes Worksheet

**Document 4a:** Resources Guide for Rural and Small Systems (Electronic Spreadsheet)

**Document 4b:** Resources Guide for Rural and Small Systems (Table for Printing)

**Document 5:** Sustainable Management Action Plan Worksheet

**Document 6:** Rural and Small Systems Guidebook to Sustainable Utility Management





## INTRODUCTIONS & WORKSHOP OBJECTIVES

*Use slides 1-3 in Workshop Slides*

The purpose of this session is for the facilitator to introduce himself/herself, and to have the other participants in the room introduce themselves to each other. The facilitator will also use this session to thank sponsors (if applicable), review the printed meeting materials that each participant has in front of him/her, and outline the meeting schedule and objectives (i.e., what should participants expect the workshop to look like).

## OVERVIEW OF KEY MANAGEMENT AREAS (SESSION 1)

*Use slides 4–18 in Workshop Slides and refer to pages 4–6 in the Rural and Small Systems Guidebook*

During this session, the facilitator (or another presenter) will describe the challenges faced by many rural and small system managers, and the ten key management areas that can help address these challenges. The facilitator will then provide an overview of each of the management areas, using the slides that have been created to describe each area. This session is primarily for the education of participants, and will help to inform the discussions throughout the remainder of the workshop.

At the end of the session, the facilitator should take questions from participants to explore the relevance of the management areas to those in the room (e.g., do these management areas relate to what you are doing?). Note that a critical aspect of the success of the previously conducted workshops was the dialog among participants throughout each session. Participant feedback indicated this was a key aspect of the workshop learning process, and it is up to the workshop facilitator to engender this dialog by asking questions and prompting all participants to engage in discussion.

## UTILITY ‘SELF-ASSESSMENT’ EXERCISE AND RESULTS

Key Management Area	Description	Rating (1-5)	Comments
1. Water Resources	Water is a key resource for rural and small systems. It is essential for the production of food and other goods, and for the health and well-being of the population. Water is also a key resource for the environment and for the economy.		
2. Production	Production is the process of creating goods and services. It is a key activity for rural and small systems, and it is essential for the economic development of the region.		
3. Finance	Finance is the management of money. It is a key activity for rural and small systems, and it is essential for the economic development of the region.		
4. Marketing	Marketing is the process of promoting and selling goods and services. It is a key activity for rural and small systems, and it is essential for the economic development of the region.		
5. Human Resources	Human resources are the people who work for rural and small systems. They are essential for the economic development of the region.		
6. Technology	Technology is the application of scientific knowledge to the production of goods and services. It is a key activity for rural and small systems, and it is essential for the economic development of the region.		
7. Environmental	The environment is the natural world that surrounds us. It is a key resource for rural and small systems, and it is essential for the economic development of the region.		
8. Policy	Policy is a set of guidelines that govern the actions of rural and small systems. It is a key activity for rural and small systems, and it is essential for the economic development of the region.		
9. Institutional	Institutional arrangements are the structures and processes that govern the actions of rural and small systems. They are essential for the economic development of the region.		
10. Other	Other key management areas that are not covered by the above categories.		

*Use slides 19–26 in Workshop Slides, the Self-Assessment Worksheet, and refer to pages 7–11 and Appendix I in the Rural and Small Systems Guidebook*

The Self-Assessment is the most important session of the workshop. During this session, the facilitator will provide instructions for how the exercise is to be completed (refer to slides 19–25), and the objectives of the exercise. The approach taken for the Self-Assessment exercise differs between the two types of workshops.

### Multi System Workshop (Session 2 & Session 3)

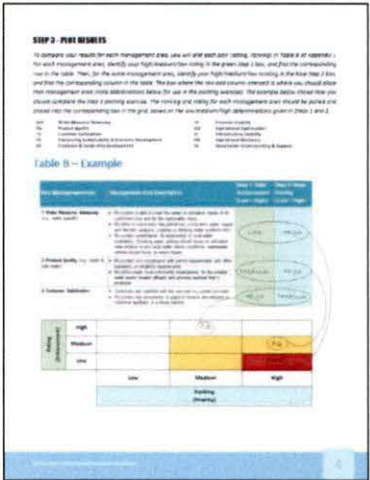
For a Multi System Workshop, each individual participant will complete the Self-Assessment Worksheet (Document 2) with his/her own utility in mind. Once all participants have completed their worksheets, the table groups will convene to discuss their results. Table groups should discuss the questions on slide 26 on their own for approximately 25 minutes (during this time, it helps to assign a ‘table captain’ to keep the discussion moving and on-topic). After table groups have discussed the questions, the entire group



of workshop participants will reconvene for the facilitator to lead a discussion about the questions. This discussion will help draw out common themes from each table. As themes emerge, the facilitator should ask participants how they have dealt with relevant challenges to help participants learn from each other's experiences, successes, and mistakes.

**Team Exercise Workshop (Session 2)**

In the context of an individual utility running a Team Exercise Workshop, the Self-Assessment will be more of a full-group exercise. After the team leader has explained how to complete the worksheet, each meeting participant will fill out the worksheet on his/her own for approximately 30 minutes. Using a 'master copy' of the worksheet, the team leader will then compile the results of all worksheets and lead a discussion with the entire group to come to agreement on where the utility's improvement efforts should be focused based on the worksheet results. Based on the compiled responses, this group discussion should be guided by (but not limited to) the questions found on slide 26. At the end of the session, the group should be able to answer the question, "What are our priority areas to focus on as we move forward?" (Try to limit this to no more than three management areas to begin with.)



**IMPROVING OUTCOMES**

*Use slides 27–28 in Workshop Slides and the Improving Outcomes Worksheet and refer to pages 12–17 in the Small Systems Guidebook*

The purpose of this session is to build on the results of the Self-Assessment Worksheet exercise and focus on how to improve outcomes in the key management areas that were identified as highest priority and lowest areas of achievement (i.e., the management areas that were in the yellow or red boxes in the plotting exercise).

**Multi System Workshop (Session 4)**

In the Multi System Workshop context, each table will be assigned a different management area. These management areas should be chosen based on the Self-Assessment results (the areas that were the most common for needing improvement

among table participants). Each table group will address the questions on slide 28 (which correspond with the bolded questions in the "Improvements Worksheet") for their respective management area. As the table group discusses as a whole, each participant should be recording notes about answers to the questions on his/her worksheet.

**Team Exercise Workshop (Session 3)**

For a Team Exercise Workshop, the management areas that were identified as priorities in the Self-Assessment discussion should be assigned to groups of 2–3 members (or more, depending on your team size). Each group should spend approximately 75 minutes addressing the questions on slide 28 for their respective management areas. After the groups have answered the questions, the team leader should bring everyone back together to hold a full team discussion. During this discussion, each group should report on their discussions, and other team members should be given the chance to weigh in on the areas that they did not participate in.



## MULTI SYSTEM WORKSHOP ONLY: PRACTICES, TOOLS, AND MEASURES RESULTS (SESSION 5)

*Use slides 28–47 in Workshop Slides, the Resources Guide, and refer to Appendix III in the Rural and Small Systems Guidebook*

**Session 5a:** To build on the discussions in Session 4 about improving outcomes, the facilitator should ask each table group to share their responses to the questions on slide 28. After each table has reported out, the group will have a facilitator-led discussion of the findings. (What do the findings tell us about the challenges and improvement options for each of the areas? What are the similar and different approaches that systems take to address the challenges that they face?). This session is a critical peer-to-peer learning opportunity. The session facilitator should be sure to engage all workshop participants in the discussion and ask them to share their ideas for how to improve, what they have done previously to improve, and what types of challenges they have faced.

**Session 5b:** To begin this portion of the session, the facilitator should recap the results of the group discussion in Session 5a. In response to the challenges discussed in Session 5a, the facilitator will present resources that EPA and USDA identified for rural and small systems that relate to the management areas. These resources can be found on slides 30–47. When addressing the Resources Guide, the facilitator should note that there are two versions of the document: a printer-friendly version (which should be included in the materials given to participants), and a more in-depth electronic version (which should be emailed to participants after the meeting). The more in-depth version has a filter function that allows the user to sort the resources by management area. Finally, the facilitator should introduce the attendees to the Sustainable Management Action Plan worksheet, which will be a useful resource for them to use at their individual systems when identifying improvement activities.

**APPENDIX III: RESOURCES FOR RURAL AND SMALL SYSTEMS**

As a companion resource to the Guidebook, this list of resources offers additional information and guidance specific to small systems in the two key management areas. Resources are identified in the table by the management area that they address; additional resources in this table are identified in the two boxes. The majority of the resources listed are available free of charge.

Key	Resource Category	Resource Title	Management Area	Available	Free	Cost	Link
1	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
2	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
3	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
4	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
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73	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
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93	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
94	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
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96	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
97	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
98	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
99	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
100	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		

## APPENDIX III: RESOURCES FOR RURAL AND SMALL SYSTEMS

As a companion resource to the Guidebook, this list of resources offers additional information and guidance specific to small systems in the two key management areas. Resources are identified in the table by the management area that they address; additional resources in this table are identified in the two boxes. The majority of the resources listed are available free of charge.

Key	Resource Category	Resource Title	Management Area	Available	Free	Cost	Link
1	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
2	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
3	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
4	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
5	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
6	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
7	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
8	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
9	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
10	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
11	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
12	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
13	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
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23	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
24	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
25	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
26	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
27	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
28	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
29	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
30	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
31	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
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33	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
34	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
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36	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
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97	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
98	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		
99	Water Quality	Water Quality Assessment	Water Quality	✓	✓		
100	Water Quantity	Water Quantity Assessment	Water Quantity	✓	✓		

**1. A Step-by-Step Guide to the Water Quality Index for Drinking Water Systems**  
<https://www.epa.gov/region-9/step-by-step-guide-water-quality-index-drinking-water-systems>  
 This document provides a step-by-step guide to the Water Quality Index (WQI) for drinking water systems. It includes information on how to collect water samples, how to analyze them, and how to interpret the results. The guide is designed to be easy to use and is available in both English and Spanish.

**2. Water Quality Assessment**  
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 This document provides a step-by-step guide to the Water Quality Index (WQI) for drinking water systems. It includes information on how to collect water samples, how to analyze them, and how to interpret the results. The guide is designed to be easy to use and is available in both English and Spanish.

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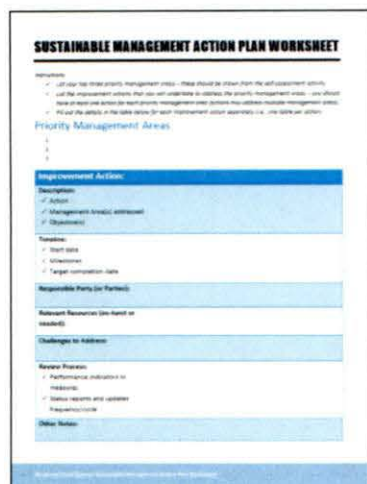
**44. Water Quality Assessment**  
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 This document provides a step-by-step guide to the Water Quantity Index (WQI) for drinking water systems. It includes information on how to collect water samples, how to analyze them, and how to interpret the results. The guide is designed to be easy to use and is available in both English and Spanish.

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 This document provides a step-by-step guide to the Water Quality Index (WQI) for drinking water systems. It includes information on how to collect water samples, how to analyze them, and how to interpret the results. The guide is designed to be easy to use and is available in both English and Spanish.

**47. Water Quantity Assessment**  
<https://www.epa.gov/region-9/water-quantity-assessment>  
 This document provides a step-by-step guide to the Water Quantity Index (WQI) for drinking water systems. It includes information on how

Following the team leader's presentation, the team should have a full-group discussion about any additional ideas that may have been sparked about improving performance in the management areas, and any resources that they would like to explore further.



**SUSTAINABLE MANAGEMENT ACTION PLAN WORKSHEET**

**Instructions:**

- Let your top three priority management areas – those should be chosen from the self-assessment results.
- Let the improvement actions that you will undertake to address the priority management areas – one should have to report back on the next priority management area session you address another management area.
- 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 function 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 to measure:
• Status reports and updates:
Feedback:

© 2010 Sustainable Management Action Plan Worksheet

## CREATING AN ACTION PLAN

*Use slide 48–55 in Workshop Slides, the Sustainable Management Action Plan worksheet, and refer to pages 18–21 and Appendix II in the Rural and Small Systems Guidebook*

### Multi System Workshop (Session 6)

To close out the day, the participants should regroup to discuss what next steps will be taken to move forward with making improvements in the management areas that were identified as priorities. Each participant or each team of participants from a single utility should fill out a Sustainable Management Action Plan worksheet to plan next steps. It is crucial to communicate with participants the importance of sharing this

information and the Self-Assessment results with their managers and decision makers to help gain support for taking action as they move forward.

### Team Exercise Workshop (Session 5)

To close out the day, the team should regroup to discuss what next steps will be taken to move forward with making improvements in the management areas that were identified as priorities. With the team leader leading the discussion, the group should confirm the management areas that it will focus on, make assignments for who will take the lead in each area, and assign time frames for completing the next steps in the improvement process. The Sustainable Management Action Plan worksheet is a useful resource when conducting this exercise.

## MULTI SYSTEM WORKSHOP ONLY: PARTICIPANT FEEDBACK (SESSION 7)

*Use slide 56 in Workshop Slides and the Participant Feedback Form*

As part of closing out the day, it is important to get feedback from participants about how they thought the workshop went. This is especially true if you are planning to run a similar event in the future, so that you can modify your approach as needed. The facilitator should thank the group for their participation, explain the feedback form, give any information about follow-up (electronic distribution of meeting materials, etc.), and close out the day by letting participants know that they are free to leave once they've completed their forms (try to give them approximately 15–30 minutes to do so).



# POST-WORKSHOP FOLLOW-UP

## Multi System Workshop

At the end of the workshop:

- ✓ **Review the 'Next Steps For Your Utility'** handout and talk again about the importance of an action plan;
- ✓ **Review the 'Workshop Participant Talking Points'** handout that provides workshop participants with highlights to share with their utility leaders, board members, and other community decision makers;
- ✓ **Do a materials check:** Double check that all participants have a copy of the Self-Assessment Worksheet and the Sustainable Management Action Plan Worksheet and let them know where they can find these online; and
- ✓ **Share contact information:** Make sure you provide participants with your contact information, and make sure to get the contact information for at least one participant from each utility (this should also be collected as a part of workshop registration).

In the days and weeks following your meeting, there are a few additional steps that need to be completed. Make sure that you address these items in particular, as well as any others that came up during your workshop:

- ✓ Send a follow-up message to participants, thanking them for attending, and providing any meeting materials that you may have promised, such as the electronic version of the Resource Guide. Use this message as an opportunity to schedule follow-up appointments with participants and prompt them to complete the steps in the Next Steps for Your Utility handout.
- ✓ Review feedback given on Feedback Forms—What went well? What could be improved? If you are planning on hosting another workshop, make a plan for modifying your approach based on the feedback you received.
- ✓ Refer to the **Next Steps for Workshop Facilitators and Technical Assistance Providers** handout for a complete

## Workshop Participant Talking Point Handout

Template 8, included in the *Workshop in a Box*, is a handout for workshop participants to use in communicating about the workshop with their managers and decision makers (e.g., board members). Workshop participants should receive this handout at the end of the day to equip them to talk about what they learned at the workshop and why it is important to take action in the priority management areas identified during their self-assessment.



timeline of suggested next steps for following up with workshop participants. It is critical that workshop participants begin to work on their action plans following the workshop, and you are a key part of encouraging that work.

## Team Exercise Workshop

Now that your team is on the path to making improvements in the management areas, it is important to follow up immediately after the meeting (let no more than a day or two pass before doing this) so that you can keep the momentum going. Make sure that you address these items in particular, as well as any others that came up during your workshop:

- ✓ Follow up on the list of action items that you came up with at the end of the meeting (immediate next steps, identifying resources and guides that will help you with your priority management areas, etc.).
- ✓ Brief any staff members who may have missed the event.
- ✓ Schedule a follow-up meeting for a few weeks or a month later to check in on progress made on the action items that were identified.

The **Next Steps for Your Utility** handout can also be a helpful resource to guide your activities after the team workshop is complete.

### UTILITY'S NEXT STEP

#### NEXT STEPS FOR WORKSHOP FACILITATORS AND TECHNICAL ASSISTANCE PROVIDERS

Now that you have completed the Sustainable Management of Rural and Small Systems Workshop, there are a number of important follow-up steps for both you and the utilities attending the workshop to undertake. The following activities are designed to help you do this work and share it with others through the following process:

##### At the end of the workshop:

Handout the **Next Steps for Your Utility** handout that corresponds to the system.

- ✓ Review the **Workshop Participants Taking Action** handout that provides workshop participants with highlights to share with their utility leaders, board members, and other community decision-makers.
- ✓ The **workshop checks** should check that all participants have a copy of the Self-Assessment handout and the Sustainable Management Action Plan handout and set them aside where they can find these online.
- ✓ **Share contact information:** Make sure you provide participants with your contact information, and make sure to get the contact information for at least one participant from each utility (this should also be collected as a part of workshop registration).

##### Approximate Timeframes

##### Recommended Schedules

##### 1-4 weeks after the workshop:

##### Recommended Utility Activities

- Hand a follow-up meeting within six weeks. Include any utility managers or leaders from all departments in the utility, utility board members, and other staff.
- ✓ Develop a copy of the Self-Assessment handout.
- ✓ As necessary, use the Self-Assessment activity and handout to implement the next set of recommendations during the workshop. This can include any of the team exercise Workshops A-B or materials available from CDQA and EPA.
- ✓ Develop a Sustainable Management Action Plan handout and set it aside where they can find these online.
- ✓ Complete the Sustainable Management Action Plan handout.

##### Technical Assistance Provider Role

Conduct the utility 30-60 day after the workshop.

- ✓ Find out if there have any questions on the workshop materials.
- ✓ Offer to help those complete their Action Plan handout if they have not already done so.
- ✓ Ask about any additional technical assistance needs from right away.

### UTILITY'S NEXT STEP

#### NEXT STEPS FOR YOUR UTILITY

Now that you have completed the Sustainable Management of Rural and Small Systems Workshop, there are a number of important follow-up steps for both you and the utilities attending the workshop to undertake. The following activities are designed to help you do this work and share it with others through the following process:

##### Approximate Timeframes

##### Recommended Activities

##### 1-4 weeks after the workshop:

- Hand a follow-up meeting within six weeks. Include any utility managers or leaders from all departments in the utility, utility board members, and other staff members who can help with implementation of the plan.
- ✓ Develop a copy of the Self-Assessment handout.
- ✓ As necessary, use the Self-Assessment activity and handout to implement the next set of recommendations during the workshop. This can include any of the team exercise Workshops A-B or materials available from CDQA and EPA.
- ✓ Complete the Sustainable Management Action Plan handout.

##### 4-8 weeks after the workshop:

- If they have not already been involved in the process up to this point, consider reaching out to utility board members and other community leaders (e.g., city manager or mayor) to help them understand the utility's situation.
- ✓ Develop the Sustainable Management Action Plan handout.
- ✓ If appropriate, use the Self-Assessment activity and handout to implement the next set of recommendations during the workshop. This can include any of the team exercise Workshops A-B or materials available from CDQA and EPA.
- ✓ Develop a Sustainable Management Action Plan handout and set it aside where they can find these online.
- ✓ Complete the Sustainable Management Action Plan handout.

##### 8-12 weeks after the workshop:

- Develop a Sustainable Management Action Plan handout and set it aside where they can find these online.

**CONGRATULATIONS! YOU HAVE COMPLETED THE *WORKSHOP IN A BOX* FOR THE SUSTAINABLE MANAGEMENT OF RURAL AND SMALL SYSTEMS WORKSHOPS!**



# ACKNOWLEDGEMENTS

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United States  
Environmental Protection  
Agency

In 2011, The United States Environmental Protection Agency (EPA) and United States Department of Agriculture (USDA) signed a Memorandum of Agreement (MOA) to support a series of activities to help small and rural water and wastewater systems address challenges they face and to more effectively provide sustainable services to the communities they support. Through this MOA, EPA and USDA have sponsored the development of this *Workshop in a Box* material.

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Agency

*USDA is an equal opportunity provider, employer, and lender.*

