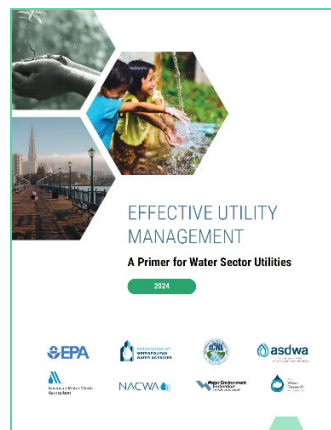# MOVING TOWARD SUSTAINABILITY:

Sustainable and Effective Practices for Creating Your Water Utility Roadmap

Updated August 2024

Companion to the
Effective Utility Management Primer

Table of Contents

Foreword

Sustainable water and wastewater services are critical to providing the American public with clean and safe water. The delivery of clean and safe water helps to ensure the environmental, economic, and social sustainability of the communities that these utilities serve. Many utilities across the country face tremendous challenges, such as aging infrastructure, extreme weather events, population shifts, and competing economic resource priorities within their communities.

Today, more and more utilities assume leadership roles related to community sustainability, resource recovery and conservation, economic development, and technology innovation, becoming "anchor institutions" in their communities. As such, they must also focus on long-term sustainability and bringing about meaningful change in their organizations and communities. Since 2006, the U.S. Environmental Protection Agency (EPA) has worked in collaboration with utilities, states, professional associations, and research foundations to help utilities across the water sector respond to these challenges through the <u>Effective Utility Management</u> initiative. This document is an important resource to that initiative.

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Own Water Utility Roadmap was developed with extensive input from leading utilities, states, and professional associations. Its purpose is to assist utility leaders in implementing proven and effective practices over time to improve their operations and move toward sustainability, at a pace consistent with their needs and the needs of their communities. The practices are organized according to three separate business levels, using the industry-accepted Effective Utility Management Ten Attributes and Keys to Management Success as its framework. The document provides utilities with a cohesive structure to help them systematically address various challenges proactively and with confidence to create an individualized "roadmap" as they move toward sustainable operations over time.

The proven and progressive practices described in this document can help utilities:

Save money by optimizing the planning and delivery of services to their customers;

Ensure a reliable source of water consistent with customer needs;

Use energy and water-efficient practices and technologies that foster water reuse, resource recovery, and green infrastructure;

Become more resilient to short-term disasters and other longer-term challenges; and

Build greater understanding and support from decision-making bodies, customers, and other community stakeholders

Introduction and Purpose of This Document

Sustainable water and wastewater services are critical to providing the American public with clean and safe water and helping ensure the environmental, economic, and social sustainability of the communities that utilities serve. Utilities across the country face tremendous challenges, such as aging infrastructure, an aging workforce, increasing mandates, and competing priorities within the communities they serve.

The purpose of this document is to assist utility leaders with implementing proven and effective practices over time to improve their operations and move toward sustainability, at a pace consistent with their needs and the needs of their communities. It provides utility leaders with a cohesive structure to help them address various challenges proactively and with confidence. The practices described in this document reflect the lessons learned and the practical experience utilities have derived as they have improved their operations. A utility can use this document to identify specific opportunities for improvement and draw on the example practices to create an individualized "roadmap" to more sustainable operations.

This document is a continuation of a significant body of work led by the Office of Water at the U.S. Environmental Protection Agency (EPA), in collaboration with ten other waster sector associations, to promote actions to make water sector utilities of all sizes more sustainable and help ensure the sustainability of the communities they serve. EPA has collaborated closely with utilities, states, federal agencies, and other organizations in all of these efforts, including the following:

- Supporting effective utility management (EUM) based on a series of attributes of effectively managed utilities and keys to management success, as described in *Effectively Utility Management: A Primer for Water and Wastewater Utilities* (the "EUM Primer").
- Working with the U.S. Department of Agriculture (USDA) on a parallel initiative and associated publication targeted to rural and small systems – *The Rural and Small Systems Guidebook to Sustainable Utility Management*.

Effective Utility Management: A Primer for Water and Wastewater Utilities

The first publication referenced above, the *EUM Primer,* is particularly relevant to this document. The *EUM Primer* presents a set of Ten Attributes of Effective Utility Management (e.g., Financial Viability) and Five Keys to Management Success (e.g., Strategic Business Planning and Management). The *EUM Primer* also provides a cohesive, objective, step-by-step, self-assessment framework for utilities to evaluate their strengths and identify areas for improvement. The practices provided in this document are presented to align with the Ten Attributes and Five Keys to Management Success from this publication, which has been endorsed by the U.S. EPA along with ten other Collaborating Organizations, and water utility leaders from across the country.
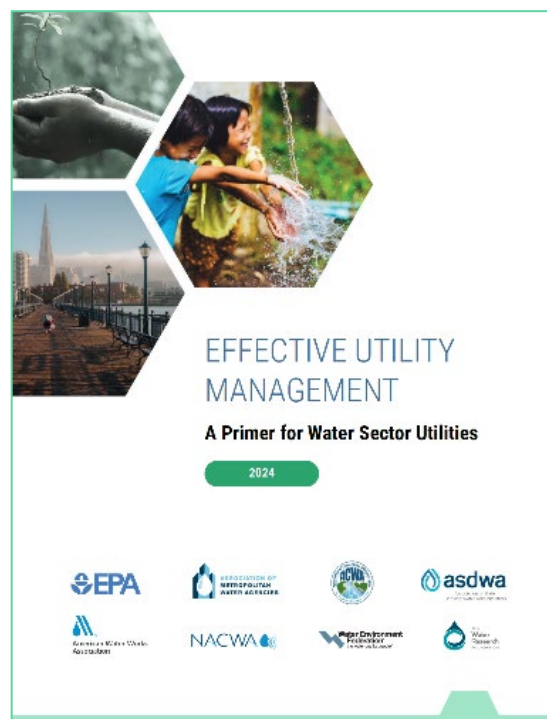
Utilities that choose to use this document should first undertake the EUM self-assessment to gain a better understanding of which management areas and practices they wish to focus on first. Information on the self-assessment tool and other EUM-related resources are available at www.WaterEUM.org.

This document reflects significant input and leadership from a group of leading utility and state managers. The Acknowledgements section of the document provides a list of these individuals. Industry professional associations and others have also provided significant leadership in this area. Examples include the *Energy Roadmap for Wastewater Utilities* developed by the Water Environment Federation (WEF); the *Utility of the Future Blueprint* developed by the National Association of Clean Water Agencies (NACWA), Water Environment Research Foundation (WERF), and WEF; and the *Sustainability Policy* of the American Water Works Association (AWWA).

This document is designed to complement, but not duplicate the efforts of EPA and its water sector partners. EPA continues to work closely with industry and other partners to clarify how these various efforts complement each other and communicate this alignment to the water sector utility community at large.

The Path to This Document

This document was originally released in 2013 with substantial development support from a group of utility and state program managers, who built on past work to promote sustainable utility management, including the *Effective Utility Management Primer*. In 2015 – 2016, EPA recruited leaders from five utilities to "road test" the document at their organizations.

Based on the experiences of the Road Testers, advancements across the water sector, and updates to the companion *Effective Utility Management Primer* document, EPA updated the *Roadmap* in 2018.

When the Primer was modernized in 2023 – 2024, the *Roadmap* was refined again to align with the changes made to the revised EUM Framework.

WHAT'S IN IT FOR ME?

WHY UTILITY LEADERS SHOULD CREATE A ROADMAP

Utility leaders (both managers and staff) are looking for practical, flexible, and user-friendly tools that can help them improve the day-to-day management of their operations. As more and more utilities engage in leadership roles on issues related to community sustainability, resource recovery and conservation, economic development, and environmental education, they must concurrently focus on long-term sustainability and bringing about meaningful change within their organizations. This document provides a structure for creating a roadmap that can help utility leaders address these challenges and capture opportunities proactively and with confidence. The proven and progressive practices described in this document can help utilities do the following:

- Save money by optimizing the planning and delivery of services to their customers.
- Better protect the environment by consistently meeting regulatory requirements.
- Ensure a reliable source of water consistent with customer needs.
- Recruit and retain a workforce necessary to ensure sustainable operations.
- Become more resilient to short-term disasters and other longer-term challenges.
- Use energy and water-efficient practices and technologies that foster water reuse, resource recovery, and green infrastructure.
- Build greater understanding and support from decision-makers, customers, and other stakeholders.
- Work effectively with other community interests to implement innovative, watershed-based solutions and strengthen the local economy.

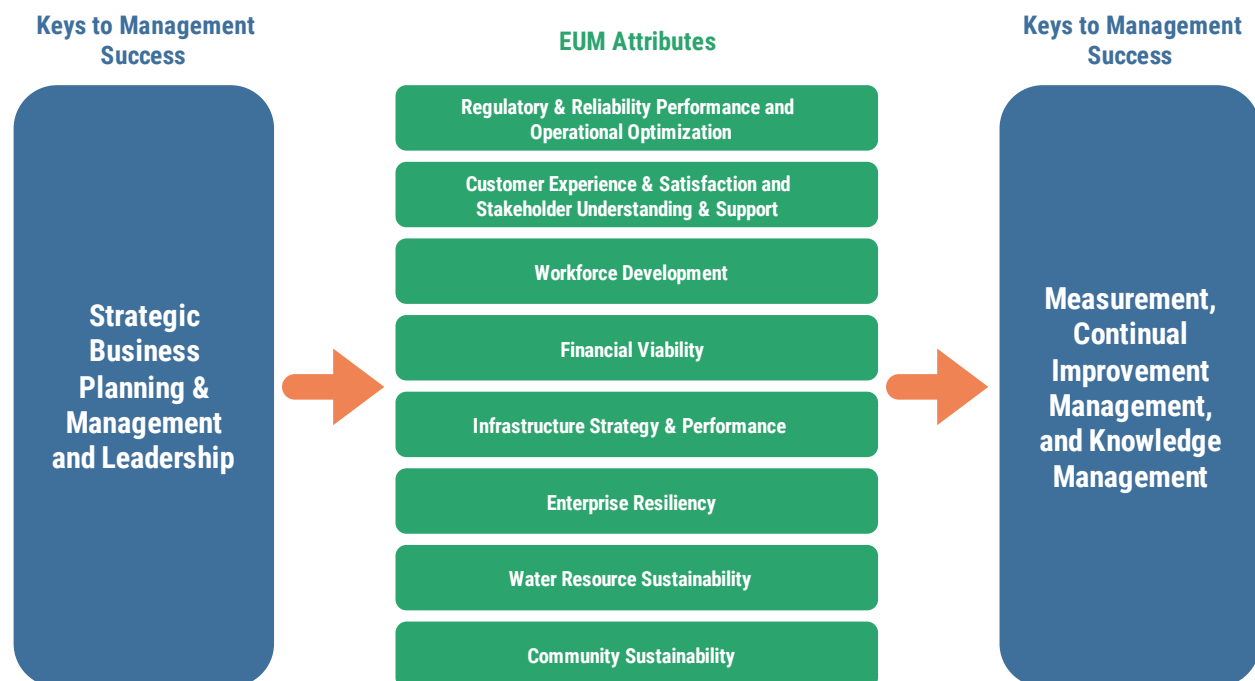## OTHER THINGS UTILITY LEADERS SHOULD KNOW ABOUT THIS DOCUMENT

- This document does not define a single roadmap for utilities to follow. It provides a flexible way for utilities to develop their own roadmap to meet the needs of their system and community.
- The practices in this document are illustrative examples that reflect extensive input from utility and state leaders from across the country.
- The practices, by design, are not comprehensive. They are progressive "practices with a purpose" that provide practical examples of how utilities can improve their overall sustainability and resiliency.
- The practices can be scaled and implemented regardless of a utility's size, geography, or capacity.
- This document organizes practices into three levels. The levels are a progression model that allows utilities to gauge where they stand in terms of practice adoption. It also allows them to create a roadmap for improvement to progress across the levels (if desired) and meet the needs of their community.
- These levels do not imply any judgment about a utility's current performance. This document acknowledges that utilities have different technical, financial, and managerial capabilities and local operating contexts.
- EPA encourages utilities to create a roadmap based on these practices over time and at a pace consistent with their current priorities, future goals, and the needs of their communities.

The Ten Attributes and Five Keys to Management Success

Example practices presented in this document have been organized under the ten "Management Areas" identified in the diagram below. These areas are based on the EUM Ten Attributes and Five Keys to Management Success (described in the Introduction section and detailed in the Effective Utility Management Primer).

The Management Areas presented horizontally are based on the EUM Ten Attributes; they are not presented in any particular order. Two of these Management Areas – Regulatory & Reliability Performance and Operational Optimization, and Customer Experience & Satisfaction and Stakeholder Understanding and Support – reflect a merger of EUM Attributes for ease of presentation.

The remaining two Management Areas – Strategic Business Planning & Management and Leadership; and Measurement, Continual Improvement Management, and Knowledge Management – are drawn from the EUM Five Keys to Management Success. These Management Areas flank the other areas to signal their importance to effective performance improvement. Good planning on the front-end guides implementation of the practices and measurement and continual improvement on the back end enables adaptation and optimization as utility operating and external community and watershed priorities evolve over time.

Keys to Management Success

EUM Attributes

Keys to Management Success

Strategic Business Planning & Management and Leadership

Regulatory & Reliability Performance and Operational Optimization

Customer Experience & Satisfaction and Stakeholder Understanding & Support

Workforce Development

Financial Viability

Infrastructure Strategy & Performance

Enterprise Resiliency

Water Resource Sustainability

Community Sustainability

Measurement, Continual Improvement Management, and Knowledge Management

THE THREE BUSINESS LEVELS

Provided below are descriptions of the three "business levels" used in this document to present example practices. The levels support the dual purpose of this document: (1) to provide a cohesive set of specific example practices across the Management Areas within each business level; and (2) to provide a clear path for utilities to adopt successively more progressive practices over time.

These business levels are only intended to help utility managers understand where they stand in terms of adopting practices; the levels are not "bright lines" or mutually exclusive of each other. In addition, individual utilities may choose to initially focus their attention on one or only a few selected Management Areas reflective of their own priorities and capacity, and local community needs and expectations.

Level 1 – Providing Adequate, Fundamental Services: At this level, a utility is implementing practices that focus on meeting and maintaining compliance for all applicable regulations, ensuring adequate levels of operational resiliency, and implementing revenue and financing mechanisms that assure its mid- to long-term financial viability. The utility uses industry-accepted standard operating procedures (SOPs), proven and reliable technologies, and has clearly defined staff roles and responsibilities. The utility maintains a positive public image, cultivates an understanding of its operations and the value of its services with the community, is able to identify risks to high-consequence assets and plan for emergencies, and is capable of receiving and responding to customer and community concerns and complaints in a timely manner.

Level 2 – Optimizing Operations and Services: In addition to providing basic services consistent with Level 1, a utility at this level is focusing on continual improvement and views optimizing its operations and services as central to mission success. The utility actively engages with its community to create operating conditions that are responsive to community needs and interests. The utility has established working relationships with neighboring systems as appropriate, has explicit performance improvement objectives and service levels, and actively seeks to ensure its operations support the community's economic and social well-being. The utility has adopted sustainability as a core business principle and appropriately utilizes natural systems, like green infrastructure, in addition to other nonconventional technologies (e.g., decentralized approaches) and practices. The utility has started using processes for the internal recovery of energy, solids, and materials.

Level 3 – Transforming Operations and Services for the Future: In addition to optimizing its current services, at this level, a utility is implementing practices consistent with many of the directions set forth in leading industry initiatives like the Utility of the Future Blueprint. The utility is employing practices that focus on managing treated wastewater and biosolids as valuable commodities, both to improve efficiency and as new revenue sources. The utility focuses on enhanced resiliency; acts as a leader in local watershed and community sustainability; and works actively with other local institutions to engage in community planning in order to help ensure economic, social, and environmental sustainability. The utility is a leader in and catalyst for economic development within the community; focuses on resource management and recovery; and works actively with others to promote full water cycle stewardship within its watershed to seek low-cost, high-return solutions. The utility also fosters an internal culture of innovation, collaborative development, and active engagement with its employees.

How to Read and Use This Document

The graphic below will help utilities understand how this document is structured in each of the ten Management Areas. The example practices on the following pages are numbered for ease of access/reference. There is no implied importance or ranking associated with the numbering scheme included in the document.

The Management Areas:

1. Strategic Business Planning & Management and Leadership
2. Regulatory & Reliability Performance and Operational Optimization
3. Customer Experience & Satisfaction and Stakeholder Understanding & Support
4. Workforce Development
5. Financial Viability
6. Infrastructure Strategy & Performance
7. Enterprise Resiliency
8. Water Resource Sustainability
9. Community Sustainability

Management Area Title ——————

1. Strategic Business Planning & Management and Leadership

Management Area Scope ——————

SCOPE This Management Area addresses various forms of planning including capital, long-range, and strategic planning, and the leadership required to implement these plans effectively. It incorporates building organizational and community needs and objectives into these processes. It includes collaborative relationships – guided by utility leaders – established with other water utilities, local government entities, private enterprises, and non-governmental organizations (NGOs) to enhance the utility's performance, capacity, and capabilities.

Business Level ——————

Level 1: Providing Adequate, Fundamental Services

Practice Statement ——————

PRACTICE STATEMENT #1 **Planning:** Capital project needs identified and incorporated into annual budgets; technical, managerial, and financial capacity understood; and strategic needs and directions understood for the organization to document.

Example Practices ——————

Example Practices		Assessments and Actions			
1.1.1.1	Multiyear capital plan that prioritizes capital project needs and identifies high-priority and short-term needs and investments on a life-cycle cost basis.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.2	Reserve fund accounts, or ability to acquire debt, sufficient to provide for capital needs over the mid- to long- term.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.3	Policies and procedures in place for capital project monitoring and reporting.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.4	Capital planning and improvement program, which identifies how the capital plan fits into the utility's established policies, goals, and objectives and how the capital improvement process incorporates engineering and finance recommendations.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

The example practices are numbered with a four-number code derived from: the numbered Management Area (ranging from 1 up to 10), followed by the Business Level number (ranging from 1 - 3), and then the Practice Statement number (ranging from 1 - 4). The final number in the code refers to the Example Practice itself (ranging from 1 up to 12).

Utilities are encouraged to follow these steps to help them most effectively use the practices presented in this document:

- **Step 1: Assess your relative strengths and weaknesses in each of the EUM Ten Attributes and Five Keys to Management Success.** Prioritize those Management Areas you would like to initially focus on. Tools to help utilities conduct such an assessment are available at www.WaterEUM.org.
- **Step 2: Assess your current activity relative to each example practice** in each of the three levels relevant to your selected Management Areas to determine the extent to which your utility has implemented specific practices. Choosing from the options "Don't Have," "In Progress," or "Complete," check the description that best characterizes your utility's current activity for each example practice.
- **Step 3: Determine what action to take relative to each example practice.** Based on steps 1 and 2 above, identify specific actions you will take drawing on the example practices (or similar practices, as appropriate). Choosing from the options "Adopt," "Improve," or "Maintain," check the box that describes what you believe your utility needs to do for each practice.
  - o **ADOPT:** Check this box if your utility does not currently have a management practice that represents the example practice and that it needs to have this practice to reach its desired level of implementation.
  - o **IMPROVE:** Check this box if your utility has a management practice that is related to the example practice, but improvement is needed to reach your desired level of implementation.
  - o **MAINTAIN:** Check this box if your utility has the example practice already in place and that you want to continue using this practice.
- **Step 4 (Optional): Add any alternative or additional practices that you believe are relevant.** In each level of each Management Area, your utility may have in place, or be aware of, management practices that you believe are either a good substitute for one of the existing example practices or are a good addition to the suite of example practices listed in this document. For each alternative or additional practice, you will need to write in a written description, and complete Steps 2 and 3 for each practice.
- **Step 5: Draw a conclusion for each practice statement.** At the end of each practice statement section, you will draw a conclusion about what your utility needs to do relative to the practice statement. You will draw this conclusion based on the assessment of your current activity and actions that you determined (Steps 2 and 3).

Each practice statement section has check boxes at the end for "Green," "Yellow," and "Red," which represent the following:

> **Practice Statement Conclusion:** ☐ Green ☐ Yellow ☐ Red

- **RED:** Stop and take a more in-depth look at what needs to be done in this area to bring your utility to the level at which it aspires to be. Check this box if you have mostly "Don't Have" and "Adopt" boxes checked.
- **YELLOW:** Slow down and assess how you can improve your current practices (including completing those that you have already begun to implement but are not yet fully in place). Check this box if you have mostly "In Progress" and "Improve" boxes checked.
- **GREEN:** You are good to go in this area – keep up the good work. Check this box if you have most or all example practices in place (or have additional or alternative practices), and if you have mostly "Complete" and "Maintain" boxes checked. Do not forget to come back to these practices on a regular basis to make sure they are up to date.

Step 6: Make any necessary notes. At the end of each practice statement section, make notes as needed, considering the following questions:

- Why did I select the Practice Statement Conclusion that I chose? Was it a close decision between one conclusion and another?
- At what level of implementation does my utility want to be for this Management Area? Is my utility close to meeting this goal (or have we already met it)?

Step 7: Develop an action plan that identifies the steps you will take to adopt the practice(s), who will be responsible, and a timeline for action. The Appendix to this document includes a directory of resources designed to help you. These resources are organized around the ten Management Areas presented in this document.

1. Strategic Business Planning & Management and Leadership

SCOPE   This Management Area addresses various forms of planning including capital, long-range, and strategic planning, and the leadership required to implement these plans effectively. It incorporates building organizational and community needs and objectives into these processes. It includes collaborative relationships – guided by utility leaders – established with other water utilities, local government entities, private enterprises, and non-governmental organizations (NGOs) to enhance the utility's performance, capacity, and capabilities.

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1   **Planning:** Capital project needs identified and incorporated into annual budgets; technical, managerial, and financial capacity understood; and strategic needs and directions understood for the organization to document.

Example Practices		Assessments and Actions			
1.1.1.1	Multiyear capital plan that prioritizes capital project needs and identifies high-priority and short-term needs and investments on a life-cycle cost basis.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.2	Reserve fund accounts, or ability to acquire debt, sufficient to provide for capital needs over the mid- to long- term.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.3	Policies and procedures in place for capital project monitoring and reporting.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.4	Capital planning and improvement program, which identifies how the capital plan fits into the utility's established policies, goals, and objectives and how the capital improvement process incorporates engineering and finance recommendations.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.5	Technical performance, reliability, and maintainability guidelines and selection criteria to evaluate, compare, and identify priorities among capital project proposals.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.6	Opportunities for staff across a range of levels of the organization to engage in business planning and leadership initiatives.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.7	Planning initiatives involving collaboration across all departments/areas of the utility.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
1.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.1.10	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Partnerships/Collaboration: Relationships established with water sector associations, regulators, and technical assistance providers to maintain awareness of and obtain support for implementing improvement opportunities.

Example Practices		Assessments and Actions			
1.1.2.1	Staff attendance at industry technical and management/leadership conferences (state or national).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.2.2	Relationships with regulators and other members of industry to solicit external input on compliance and performance.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.2.3	Use of technical assistance services, such as those provided by states or water sector associations.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.2.4	Municipal or state contracts used, as available (e.g., accessing state General Services bulk purchase contracts for such services as laboratory analysis).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.2.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.1.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1

Planning: Medium- and long-range (10 to 20 years) utility and community clean and safe water needs understood through a formalized, systematic, and transparent planning process.

Example Practices		Assessments and Actions			
1.2.1.1	Strategic and long-range planning that integrate utility priorities and goals with other relevant community priorities. (Planning includes: goal setting reflective of utility and community priorities; explicit objectives and strategies in support of sustainability goals; alternatives analysis methods that integrate sustainability criteria; and financial strategy adequate to meet current and future needs).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.1.2	Explicit business case processes, including cost-benefit analyses, for selecting all major capital investments.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.1.3	Capital planning based on master plans that provide a vision for investments to correct existing deficiencies and meet future capacity needs.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.1.4	Explicit inclusion of continual improvement concepts in planning processes.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.1.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2   **Partnerships/Collaboration:** Operational agreements in place with neighboring utilities to improve system performance, lower costs, or improve resilience.

Example Practices		Assessments and Actions			
1.2.2.1	Joint operating agreements for sharing administrative, maintenance, or other services (e.g., joint water and electricity meter reading).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.2.2	Cross-training of staff from neighboring utilities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.2.3	Real-time control capabilities among neighboring systems that share collection or distribution networks.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.2.4	Staff participation in association committees and leadership in research projects.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.2.5	Proactive meetings with regulators and other key stakeholders to establish a pattern of positive interactions.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.2.6	Relationships (formal or informal) with nearby facilities to enter into joint management agreements (e.g., sharing of certified operators, consultants, equipment, sample collection, lab analysis, water line replacement/repair, or bulk equipment purchases).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.2.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Planning: Community priorities and broader watershed needs incorporated explicitly into utility decision-making; full internal alignment of utility vision, mission, and long-term planning exist; and sustainability is adopted as a core business principle. Utility vision, mission, investments, and operations integrated with other community departments.

Example Practices		Assessments and Actions			
1.3.1.1	Utility long-term strategy and mission aligned with other community priorities and integrated into long-range and capital planning.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.1.2	Multi-attribute analysis to support incorporation of Triple Bottom Line principals and associated metrics explicitly into alternatives analysis for planning purposes.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.1.3	Economic development incentive policy supported by cost-benefit, feasibility, risk, and uncertainty analyses.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.1.4	Annual joint planning sessions with key community departments (e.g., Health, Transportation, Land Use and Planning, Parks, Economic Development, Arts), supported through efforts to encourage internal departmental adoption of planning results (e.g., change management training).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.1.5	Community vision planning sessions (catalyze or participate in) to align department missions and develop a unified sustainability strategy for the community and watershed.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.1.6	Scenario-based planning, or similar methods, to plan for and address complex uncertainties such as impacts from a changing climate.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Partnerships/Collaboration: Proactive relationships established with external parties critical to the organization's operating environment and core mission. Strategic relationships for short- and long-term collaboration and in support of alternative services also established.

Example Practices		Assessments and Actions			
1.3.2.1	Lead or participate in coordination among local drinking water, wastewater, and stormwater utilities to integrate management strategies and long-term planning.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.2.2	Define policy criteria for making various contributions to, or investments in, partnership arrangements.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.2.3	Fund and operate energy generation technologies and resource recovery with public-private partnerships.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.2.4	Share information and coordinate with land use agencies on watershed planning.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.2.5	Advocacy by utility leaders for water sector initiatives (e.g., promoting alternative/innovative utility business models, promoting programs related to the Utility of the Future).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
1.3.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

2. Regulatory & Reliability Performance and Operational Optimization

SCOPE **This Management Area includes compliance with regulatory requirements, energy and materials usage (chemicals and residuals), technology, the production of high-quality products (including "fit for purpose" water and other recovered resources, such as energy, nutrients, and biosolids), performance monitoring, and standard operating procedures (SOPs).**

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1 **Compliance/Performance Standards:** Compliance obligations understood and consistently met, and applicable industry performance standards understood and adopted. Compliant industrial pretreatment program in place, and residuals compliant with applicable regulations.

Example Practices		Assessments and Actions			
2.1.1.1	Water quality sampling and process control monitoring SOPs to support proactive recognition of possible compliance problems for all Safe Drinking Water Act (SDWA) and Clean Water Act standards (e.g., biochemical oxygen demand and total suspended solids monitoring in wastewater treatment plant discharge mixing zones; and drinking water chlorine residuals monitoring).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.1.2	Basic compliance metrics established and tracked for wastewater treatment effectiveness rate and relevant SDWA requirements.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.1.3	Program for identifying and incorporating new regulations, drinking water standards, or discharge limits.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.1.4	Industrial pretreatment program certified by state environmental protection agency in place.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.1.5	Applicable operator certification requirements program in place.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.1.6	Record-keeping and reporting requirement SOPs.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
2.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Operational Improvement and Maintenance*: Opportunities to improve operations undertaken as they are identified and time and resources allow. (The utility reacts to information provided from outside sources relating to improvement opportunities.)

* Refer to the Infrastructure Strategy and Performance section for maintenance details.

Example Practices		Assessments and Actions			
2.1.2.1	Odor control measurement, monitoring, and response program.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.2.2	Leak detection and repair program.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.2.3	Optimization targets for use of labor, chemicals, and residuals.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.2.4	Valve exercise and maintenance program.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.2.5	Cross-connection control program.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.2.6	Water meter repair/replacement program.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
2.1.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Energy/Materials: Basic energy efficiency opportunities identified and implemented. Basic chemical safety procedures in place.

Example Practices		Assessments and Actions			
2.1.3.1	Energy use assessment.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.3.2	Chemical Right to Know program for all employees.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.3.3	No- or low-cost energy efficiency practices adopted (e.g., variable frequency drives wherever possible, low-energy lighting, etc.).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.3.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.3.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #4

Technology: Use fully characterized and generally accepted technologies and management systems. All plant process control systems functioning effectively and leading to full compliance for drinking water, wastewater discharges, and solids/residuals.

Example Practices		Assessments and Actions			
2.1.4.1	Adequate sizing and maintenance for wastewater treatment facilities to ensure consistent permit compliance.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.4.2	Outside resource (e.g., regulatory agencies or consultants) usage to supplement in-house capacity and assist with decision making and implementation.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.4.3	Reliable disinfection methods operating consistently with permit compliance.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.4.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.4.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.1.4.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1

Compliance/Performance Standards: Beyond compliance service levels and practices adopted. "Outstanding performance" achieved in sanitary surveys. Proactively contribute to beyond compliance voluntary standards development.

Example Practices		Assessments and Actions			
2.2.1.1	Voluntary optimization standard adoption (e.g., Partnership for Safe Water, EPA's Area Wide Optimization Program).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.1.2	Measurement, monitoring, and corrective action procedures of all key process units for detecting and responding to compliance "near misses."	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
2.2.1.3	Written SOPs for critical utility operational functions.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.1.4	Participation in water research activities, such as "pilot projects" or other testing for new, voluntary standards.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.1.5	Water quality monitoring (source and distribution) beyond regulatory requirements.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.1.6	Industrial user recognition program for beyond compliance performance (e.g., reduction of caustic chemical discharges to sewer system).	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.1.7	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.1.8	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.1.9	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Operational Improvement and Maintenance*: Create and implement an operational optimization plan and program. Utility seeks to improve performance beyond compliance requirements.

* Refer to the Infrastructure Strategy and Performance section for maintenance details.

Example Practices		Assessments and Actions			
2.2.2.1	Standardized equipment and functions (e.g., uniformly outfitting trucks).	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.2.2	Resource optimization targets (e.g., created and monitored for operation and maintenance (O&M) costs per population served, cost of customer billing per service connection, water collected or treated per employee).	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.2.3	Distribution system pressure monitoring.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
2.2.2.4	Real-time on-line monitoring for key parameters (e.g., pH, chlorine residual, etc.) to ensure optimal operation.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.2.5	Available process equipment capability optimized (e.g., for effluent quality to the maximum extent practicable).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.2.6	Distribution system water age management program.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.2.7	Optimization programs to improve treatment efficacy and water quality, and to reduce chemical usage, energy costs, and sludge volume.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.2.10	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Energy/Materials: Energy management plan in place; proactive industrial pretreatment program, including pollutant trackback and pollution prevention program in place; opportunities for reductions of chemical usage identified and implemented; plan optimized to maximize residual capture and residuals used for beneficial reuse to the maximum extent possible; and utilization of plant effluent for process water needs.

Example Practices		Assessments and Actions			
2.2.3.1	System-wide water and energy audits conducted.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.2	Explicit energy optimization actions and goals (e.g., energy reduction targets adopted and tracked).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.3	Trackback program for pollutants of concern.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
2.2.3.4	Chemical monitoring systems to minimize probability of unnecessary overdosing.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.5	Optimized sludge thickening and dewatering equipment to maximize solids capture capacity.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.6	Vigorous manufacturer and other sources of inorganic pollution outreach and education to help utilities implement best pollution prevention practices.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.7	Water optimization program (including re-use strategy and targets, water loss control program, and customer water audit program).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.8	Take-back program promotion (e.g., for unused pharmaceuticals).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.10	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.3.11	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #4

Technology: Innovative technology adoption capacity in place. Practices to help reduce the sewage and stormwater burden on sewer lines and sewage treatment plants and reduce the need for capital upgrades in place.

Example Practices		Assessments and Actions			
2.2.4.1	Green infrastructure for stormwater management source control (e.g., rain gardens, permeable pavement, and green parking lots).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.4.2	Advanced treatment technology evaluation in equipment replacement and capital improvements.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.4.3	Secondary treatment and filtration automated process systems (e.g., membrane treatment, UV treatment).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
2.2.4.4	Infiltration/inflow removal and impermeable surface reduction.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.4.5	Liquefied Petroleum Gas (LPG)-fueled vehicles.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.4.6	Practices to help mitigate groups of contaminants or contaminant precursors from drinking water.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.4.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.4.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.2.4.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1   **Compliance/Performance Standards:** Compliance assurance capacity expanded to address new regulatory areas that come with marketing and sale of resource recovery products or utility proprietary services and tools. Proactive engagement with regulators, other utilities, and watershed participants to improve compliance performance and establish more effective performance expectations.

Example Practices		Assessments and Actions			
2.3.1.1	Networking with energy and consumer product regulators to understand regulatory requirements and establish proactive working relationships.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.1.2	Proactive input to regulatory agencies in establishing new compliance levels.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.1.3	Assistance to other utilities to improve their performance (e.g., equipment loans, knowledge, and other resources).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

Example Practices		Assessments and Actions			
2.3.1.4	Active and effective environmental advocacy beyond the bounds of the utility's facilities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.1.5	Alternative or Additional Practice:	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.1.6	Alternative or Additional Practice:	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.1.7	Alternative or Additional Practice:	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Operational Improvement and Maintenance*: Advanced optimization methods and practices deployed. Integrate data system for automated real-time control and optimize utility and other community systems.

*Refer to the Infrastructure Strategy and Performance section for maintenance details.

Example Practices		Assessments and Actions			
2.3.2.1	Real-time system control. (For example, traffic of peak flows or peak demands is controlled to manage the amount of water in the system by shuttling flow between treatment plants).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.2.2	Standard data infrastructure across interdependent utility operations.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.2.3	Utility Geographic Information System (GIS) layer integration across community service departments.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.2.4	Data and automated systems integration in the context of shared water utility operations (optimize existing infrastructure).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.2.5	Real-time monitoring of distribution system water quality.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.2.6	Dashboard system to track key indicators of importance to the utility (e.g., customer service, treatment quality, cost).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices	Assessments and Actions			
2.3.2.7	GIS, hydraulic model, Supervisory Controls and Data Acquisition (SCADA), and customer information system full integration.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
2.3.2.8	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
2.3.2.9	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
2.3.2.10	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3 **Energy/Materials:** Internal energy resource recovery adopted; deployment of enhanced energy generation approaches to meet 100 percent of energy needs (i.e., "net zero"); and initial advanced materials recovery.

Example Practices	Assessments and Actions			
2.3.3.1	Alternative and renewable energy sources for plant operations (e.g., implementing solar power, wind power, or hydroelectric power; biogas for space heating; and conversion of biogas to electricity).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
2.3.3.1	High-strength waste acquisition and digestion (e.g., Fats, oils, and grease (FOG) or organics recovery from street sweeping).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
2.3.3.3	Partnerships for acquisition and marketing of energy (e.g., electric and gas utility partnerships, high-strength waster partnerships).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
2.3.3.4	Resource recovery for nitrogen, phosphorus, organic material, and possibly precious metals.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
2.3.3.5	Production and supply of different water qualities (e.g., local stormwater used for toilet flushing).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
2.3.3.6	Energy recovery in treatment and distribution systems (e.g., sewer geothermal [using heat exchange technology with sewer wastewater], smart meters, and hydrokinetic turbine applications).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
2.3.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.3.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #4   **Technology:** Advanced, distributed technology deployment. Capability to explore (pilot test) and deploy emerging technologies.

Example Practices		Assessments and Actions			
2.3.4.1	Collection system used as an extension of treatment.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.4.2	Pilot projects (internally led) for testing promising technologies.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.4.3	Robust connection to research and development affiliates (e.g., foundations, university partnerships).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.4.4	Microfiltration equipment.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.4.5	Natural treatment systems to facilitate biological removal (e.g., enzymes or catalysts).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.4.6	Decentralized supply and treatment evaluated and performed on a watershed, water-quality basis.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.4.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
2.3.4.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
2.3.4.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

3. Customer Experience & Satisfaction and Stakeholder Understanding & Support

SCOPE **This Management Area includes engagement and education efforts, customer feedback and response mechanisms, promotion and public relations, and participation in public events.**

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1 **Community Engagement and Participation:** Utility is a visible member of the community and plays an active role in community events.

Example Practices		Assessments and Actions			
3.1.1.1	Participation in community events (e.g., staff organizing to volunteer at fundraising events).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.1.2	Community organizations or sports team sponsorships.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.1.3	Community event booth sponsorships.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.1.4	Volunteer for community events (e.g., organize watershed cleanups).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.1.5	Public information event sponsorships (e.g., Water Week).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.1.6	Utility open house events.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2	**Public Relations, Education, and Promotion:** Basic information about the utility is readily accessible and understandable to community members. Emergency response communications proactively prepared.

Example Practices		Assessments and Actions			
3.1.2.1	Website includes information about major undertakings, and important documents are available.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.2.2	Periodic explanatory customer flyers.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.2.3	Clear, visible signs for construction activities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.2.4	Multiple-language utility documents consistent with community profile.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.2.5	Emergency event public communications templates for media contacts (e.g., create standardized text for boil water notices).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.2.6	Annual consumer confidence/water quality report.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3	**Customer and Stakeholder Feedback and Response:** Customer complaint and response mechanisms are in place.

Example Practices		Assessments and Actions			
3.1.3.1	Customer complaint response time targets.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
3.1.3.2	Key community stakeholder opinion leaders list and schedule for outreach (e.g., phone call, informal meeting).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.3.3	Customer information system to store billing information, service requests, and all resolutions.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.3.4	Customer complaint receipt and response capability.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.3.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.1.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1 **Community Engagement and Participation:** Community organizations and members engaged as full partners in utility plans and operations.

Example Practices		Assessments and Actions			
3.2.1.1	Two-directional engagement with community members (e.g., through social media or advisory councils).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.1.2	Media approaches geared to needs of different generations.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.1.3	Community engagement forums to understand critical values, set utility goals, and review infrastructure alternatives.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.1.4	Public participation in the planning, budget, and performance management results processes.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
3.2.1.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Public Relations, Education, and Promotion: Focus efforts to increase community understanding of the utility, the benefits from its functions and services, and the requirements for operating sustainably. Utility is viewed as a leader and critical, trusted player in the community and citizens have a strong working knowledge and acceptance of the requirements for operating sustainably.

Example Practices		Assessments and Actions			
3.2.2.1	Value of water and wastewater services educational brochures and public education campaign.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.2.2	School outreach programs (e.g., K–12 classroom presentations or local school science program water-related curriculum).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.2.3	Electronic budget documents and comprehensive annual financial report (CAFR) on the utility's website, including a concise summary and guide to the key issues of the operating and capital components.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.2.4	Executive director role focused on external communication and relationship building.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.2.5	Annual utility performance report based on service level commitments and using common language and illustrative examples (e.g., "we saved 10,000 barrels of oil this year through our energy conservation efforts").	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.2.6	Annual plain language report on "Capital Facilities" for elected officials and the general public that describes the condition and plans for asset replacement and renewal.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

Example Practices		Assessments and Actions			
3.2.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Customer and Stakeholder Feedback and Response: Feedback actively solicited and mechanisms for understanding and improving satisfaction and support are in place. Utility has established trust relationships with key community opinion leaders and stakeholders and maintains regular interactions to provide updates and stay abreast of external needs and interests.

Example Practices		Assessments and Actions			
3.2.3.1	Customer satisfaction surveys.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.3.2	Customer feedback focus groups.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.3.3	Customer complaint management system to monitor and respond to complaints.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.3.4	Methods for incorporating customer feedback into change management processes.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.3.5	Regular regulator contact to establish a positive, proactive relationship (e.g., creating an understanding for the best allocation of funds).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.3.6	Focused outreach and information sharing with the financial community, particularly in the context of bond ratings.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.2.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices	Assessments and Actions			
3.2.3.8	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
3.2.3.9	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Community Engagement and Participation: Utility is a catalyst to create networks among community departments, organizations, and stakeholders in support of watershed and community-wide sustainability improvements. The utility exerts leadership among community and regional stakeholders regarding watershed and water quality improvements.

Example Practices	Assessments and Actions			
3.3.1.1	Watershed forum sponsorship for developing community-wide water sustainability and economic development strategy.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
3.3.1.2	Community event co-sponsorship with other community organizations related to water or watershed protection to increase the public visibility of water.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
3.3.1.3	Expanded utility public engagement scope to include full range of watershed participants.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
3.3.1.4	Coalitions with NGOs to leverage resources in support of utility, watershed, and community sustainability initiatives.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
3.3.1.5	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
3.3.1.6	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
3.3.1.7	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2	**Public Relations, Education, and Promotion:** Utility has positioned itself as a leader in community sustainability, and through this leadership it influences other community organizations to follow suit. Utility has an outreach strategy designed to support its efforts to market new services and products effectively.

Example Practices		**Assessments and Actions**			
3.3.2.1	Stakeholder and customer surveys to test knowledge of utility-related issues and outreach and education efforts targeted to fill knowledge gaps.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.2.2	Risk management communication to the public in support of innovation (increase public tolerance for service failure or increased costs).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.2.3	Branded utility services and products.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.2.4	Utility culture includes clear articulation and communication as a part of the organization's brand.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.2.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Customer and Stakeholder Feedback and Response: Acceptance of utility by customers and stakeholders as a valuable community resource that can and should be involved in the provision of services and products beyond clean and safe water in areas like economic development.

Example Practices		Assessments and Actions			
3.3.3.1	Services marketing to prospective customers about how the utility could better serve them (e.g., businesses considering moving to the area, local producers of high-strength waste).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.3.2	New stakeholder engagement around nontraditional services (e.g., energy production).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.3.3	Economic corridor identification and focused planning and design for water and wastewater infrastructure support.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.3.4	Utility GIS asset leveraging to accomplish enterprise support for business development (i.e., map visualization/layering of building zones, future land use, "smartzones," enterprise zones, "HUBzones," census tracts and blocks, present and future transportation networks, etc.).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.3.5	Utility marketing and graphic design asset leveraging to support municipal government's development of a community guide promoting the benefits to business of locating in a sustainable community that EUM supports.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
3.3.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

4. Workforce Development

SCOPE **This Management Area includes organizational structure, workplace culture, institutional knowledge, succession planning, and employee development opportunities.**

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1 **Workplace Culture:** Clarity is established for all job responsibilities and functions. Sufficient workforce, with necessary training, is in place in all staff functions.

Example Practices		Assessments and Actions			
4.1.1.1	Written job requirements and descriptions for all staff functions.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.1.2	Organizational roles chart available and up-to-date.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.1.3	Annual performance reviews with written feedback.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.1.4	Periodic employee celebrations of organizational performance success (team accomplishments).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.1.5	Formal ethics policy.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

PRACTICE STATEMENT #2

Recruitment, Retention, and Succession: Needed skills and expertise are documented, used to screen applicants, and effectively communicated to new hires; reasons for employee turnover are understood.

Example Practices		Assessments and Actions			
4.1.2.1	Interview process with standardized questions tailored to the position.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.2.2	Employee turnover statistics tracked and evaluated.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.2.3	Formalized and standardized new hire orientation template listing materials to provide, key topics to review, and skills to impart.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.2.4	Critical position identification and characterization for recruitment purposes.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.2.5	Equal opportunity hiring policy in place to facilitate workforce diversity.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Development Opportunities: Program in place to support and enable staff to acquire and maintain required professional certifications.

Example Practices		Assessments and Actions			
4.1.3.1	Certification needs and opportunities identification and inclusion in annual budget.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.3.2	Operator training and education reimbursement, and leave allowance for needed certifications.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
4.1.3.3	Merit pay increases for acquired certifications.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.3.4	Staff cross-training across functions and departments to augment system resiliency.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.3.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.1.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1

Workplace Culture: Performance expectations are explicitly established and tied to compensation. Employees are encouraged to provide ideas and feedback to improve operational and administrative performance. Desired organizational culture is clearly defined and communicated to employees.

Example Practices		Assessments and Actions			
4.2.1.1	Written job descriptions with explicit, systematic performance evaluation metrics and standards.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.2.1.2	Skill level and expertise requirement articulation with link to pay stratification/raises.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.2.1.3	Employee suggestions for improvement program with management responsiveness.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.2.1.4	Employee awards and recognition program linked to creative thinking and continual improvement efforts related to achieving organizational goals.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices	Assessments and Actions			
4.2.1.5	Employees encouraged to make decisions and take independent actions that fall within organizational guidelines.	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain
4.2.1.6	Employees engaged in annual organizational goal and long-term strategic planning processes.	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain
4.2.1.7	Executive management informal workforce engagement (e.g., treatment plant walk-through and regular opportunities to meet with staff at all levels).	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain
4.2.1.8	Employee development plans based on performance and skill evaluations, as well as employee professional goals.	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain
4.2.1.9	*Alternative or Additional Practice:*	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain
4.2.1.10	*Alternative or Additional Practice:*	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain
4.2.1.11	*Alternative or Additional Practice:*	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain

Practice Statement Conclusion: □ Green □ Yellow □ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Recruitment, Retention, and Succession: Current and future workforce requirements are understood, with proactive efforts made to attract and retain highly qualified staff.

Example Practices	Assessments and Actions			
4.2.2.1	Exit interviews to understand reasons for separation and to identify opportunities for improving employee motivation and loyalty.	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain
4.2.2.2	Formal retention management plan used to help identify the most critical employees to retain.	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain
4.2.2.3	Full on-boarding program for new hires: resources, communications, organizational culture, training, welcoming activities, and guides (mentor).	**Assessment:** □ Don't Have	□ In Progress	□ Complete
		Actions: □ Adopt	□ Improve	□ Maintain

Example Practices	Assessments and Actions			
4.2.2.4	Workforce demographics documentation and retirement projections (incorporated into succession and recruitment plans).	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.2.2.5	Current workforce skills inventory, future workforce skills projections, and needed skills training.	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.2.2.6	*Alternative or Additional Practice:*	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.2.2.7	*Alternative or Additional Practice:*	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.2.2.8	*Alternative or Additional Practice:*	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Development Opportunities: Explicit professional development program for staff and management is in place, including incentives for personal improvement and activities designed to increase the "bench depth" of staffing. A structured training program establishes ongoing requirements and opportunities for professional development, and staff is encouraged to engage in broader water sector professional development opportunities.

Example Practices	Assessments and Actions			
4.2.3.1	Tuition reimbursement program to incentivize professional development consistent with organizational needs and goals.	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.2.3.2	Staff rotation to other utilities or functions within the utility for cross-training and mentoring.	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.2.3.3	Critical workforce competencies analyses by management (with subsequent targeted training programs emphasizing use of continuous improvement tools).	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.2.3.4	Broad-based leadership and management skills training conducted annually for formal and informal leadership positions and opportunities.	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.2.3.5	Additional leave time (especially in leadership roles) to promote membership in professional organizations.	Assessment: ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
4.2.3.6	Explicit training program for all staff covering core organizational functions: managerial and supervisory, professional/technical, business practices, safety, compliance, IT systems, customer service, interpersonal skills, and executive development.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.2.3.7	Formal leadership training focusing on: vision, mission, values; organizational culture; human resource policies and bargaining unit agreements; interpersonal skills; conflict resolution; problem solving and decision making; budgeting and budget management; performance appraisal; leadership; diversity; and grievance.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.2.3.8	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.2.3.9	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.2.3.10	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Workplace Culture: Performance management system is in place that explicitly aligns employee incentives, compensation, and performance expectations with the organization's mission, objectives, and business plan. A strong participatory culture exists with staff members, who are encouraged to share ideas and take measured risks. A culture of innovation, collaborative development, and active employee engagement is established and actively enhanced by the entire workforce.

Example Practices		Assessments and Actions			
4.3.1.1	Standing collaborative forums with collective bargaining units, as appropriate (all employees included).	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.1.2	Individual employee annual performance plans with direct links to business plan objectives. (The plan review is conducted several times each year between the employee and supervisor).	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices	Assessments and Actions			
4.3.1.3	Goal-sharing bonus programs for employees that reward employees for meeting their performance goals, which also help the organization meet its goals.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.3.1.4	Organizational sustainability principles, commitments, and expectations incorporated into day-to-day operations.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.3.1.5	Budget support for "innovation proposals" (removing barriers to creative thinking and developing systems for failure tolerance).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.3.1.6	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.3.1.7	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.3.1.8	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Recruitment, Retention, and Succession: An active commitment to attracting and developing new employees exists, as well as the capacity to understand and track employee satisfaction and engagement. Critical skill and expertise requirements are understood and plans are in place to ensure their timely replacement. Skills and expertise requirements are actively updated to keep pace with operational innovations and business strategy requirements. Employee motivation and retention systems use multiple avenues to achieve objectives.

Example Practices	Assessments and Actions			
4.3.2.1	Education and recruiting partnerships (e.g., internship programs) through ongoing relationships with high schools, community colleges, and universities.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.3.2.2	Mission and vision incorporated into branding efforts to support recruiting and retaining high-quality talent.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
4.3.2.3	"Pay for performance" systems to provide incentives for high-performing staff. (The process used is well understood by staff and is tied to goal attainment and specific performance criteria).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
4.3.2.4	Annual employee satisfaction surveys to identify gaps and opportunities for training and employee development.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.2.5	Job satisfaction focus groups with management to address issues identified in annual employee survey. (Solutions are determined through a collaborative approach between management and the workforce).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Development Opportunities: Establish a plan for cultivating the expansion of staff skills and expertise consistent with altered operating and technology environments relative to "utility of the future" operational demands.

Example Practices		Assessments and Actions			
4.3.3.1	Friendly utility-to-utility competition with neighboring systems in support of voluntary self-improvement programs.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.3.2	Integrated workforce development curriculums.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.3.3	Alternative management skills training (e.g., collaborative partnership development).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.3.4	Emerging opportunities for skill-building collaboration between staff and management. (Employees work in conjunction with supervisors to develop and implement plans to build skills needed to support emerging opportunities that the organization faces).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.3.5	New employee skill set sharing (e.g., identifying new skill sets and sharing them through coaching).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
4.3.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
4.3.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

5. Financial Viability

SCOPE This Management Area includes rates that reflect the full cost of service, accounting practices, fees, reserves, debt management, and the creation of additional revenue streams.

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1 **Accounting, Auditing, and Financial Reporting:** Controls and timely financial statements (issued as part of a CAFR) are in place reflecting Generally Accepted Accounting Principles with internal and independent audits conducted to ensure the system's integrity.

Example Practices		Assessments and Actions			
5.1.1.1	Policies on required level of working capital.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.1.2	Targets for days of operating expense coverage.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.1.3	Accounting policies and procedures, formally documented and consistently applied, to provide for the reporting of fraud or abuse and questionable accounting or auditing practices.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.1.4	Policies for internal control procedures over financial management (periodically evaluated with auditors).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.1.5	Policies and procedures on how to account for disaster-related reimbursable costs, and methods to track emergency incident expenses to facilitate cost reimbursement activities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.1.6	Policies and procedures on managing capital assets and on capitalization thresholds.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Budget and Fiscal Policy: Operational and capital funding needs understood and translated into rate and fee requirements, with a strategy and policies in place to maintain rates and fees at necessary levels.

Example Practices		Assessments and Actions			
5.1.2.1	Rate studies (to link rates to system needs).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.2.2	Built-in, gradual, annual rate increases.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.2.3	Operating reserve fund.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.2.4	Financial policy development (includes financial planning policies, revenue policies, and expenditure policies), adoption, annual review, and communication to the governing board.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.2.5	Explicit budget process and forecasts (used when preparing the utility's budget).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.2.6	Procedure for program expenditures that exceed an established limit from the approved budget.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Debt Management: Annual budget accommodates financing capital reserves at levels needed to support capital replacement. Debt payments are made on a timely and cost-effective basis.

Example Practices		Assessments and Actions			
5.1.3.1	Capital reserve fund.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.3.2	Comprehensive written debt management policy that addresses debt limits, debt structuring practices, debt issuance practices, debt management practices, and using derivatives.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.3.3	Policy and procedures to ensure fiduciary responsibilities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.3.4	Policy and procedures for investing bond proceeds to ensure that legal and regulatory requirements are met, fair market value bids are received, and issuer objectives for various uses of proceeds are attained.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.3.5	Capital plan financial feasibility analysis to identify financing methods and funding sources, and to assess funding availability and constraints.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #4

Procurement and Inventory: Clarity and controls are established for maintaining efficient and consistent purchasing and inventory management.

Example Practices		Assessments and Actions			
5.1.4.1	Purchasing policy that standardizes procedures for ordering, accepting, or rejecting materials and services.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
5.1.4.2	Operating inventory of supplies (defined, maintained, and updated to meet the needs of the utility operations).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.4.3	Policy that determines when the procurement of goods and services requires a formal contract.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.4.4	Emergency procurement policy to allow the expenditure of funds to support response and recovery activities after an emergency.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.4.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.4.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.1.4.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1   **Accounting, Auditing, and Financial Reporting:** Fiscal performance expectations are created with policies, practices, and targets in place to drive performance, create accountability, and support transparency.

Example Practices		Assessments and Actions			
5.2.1.1	Formal audit committee to provide independent review and oversight of the financial reporting process, internal controls, and connect with independent auditors.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.1.2	Policy for level of unrestricted fund balance that should be maintained. (The target is analyzed and set based on particular characteristics and criteria of the utility and includes: transfers, cash cycles, customer profile, control over revenue, asset age and condition, volatility of expenses, control over expenses, and debt position).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
5.2.1.3	Policy for target level of working capital. (The target is analyzed and set based on particular characteristics and criteria of the utility and includes: transfers, cash cycles, customer profile, control over revenue, asset age and condition, volatility of expenses, control over expenses, and debt position).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	
5.2.1.4	Financial statements with management's department-level discussion and analysis.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	
5.2.1.5	Mechanism to permit the confidential, anonymous reporting of concerns about fraud or abuse and questionable accounting or audit practices to the appropriate responsible parties.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	
5.2.1.6	Budget to actual comparisons in the audited basic financial statement.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	
5.2.1.7	Formal internal audit function.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	
5.2.1.8	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	
5.2.1.9	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	
5.2.1.10	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Budget and Fiscal Policy: Cost of service is understood with rates and fees established accordingly, while revenue needs over the mid- to long-term are understood and rate impacts to customers are explicitly managed.

Example Practices		Assessments and Actions			
5.2.2.1	Payment assistance programs for disadvantaged households.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	
5.2.2.2	Cost of service studies.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete	
		Actions: ☐ Adopt	☐ Improve	☐ Maintain	

Example Practices		Assessments and Actions			
5.2.2.3	Rate model to support current and future rate needs determinations.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.2.4	Affordability criteria (and tracking the impact of bills on customers), with appropriate considerations for disadvantaged households.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.2.5	Regularly monitor and periodically update major revenue and expenditure that extends at least three to five years beyond the budget period.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.2.6	Separate rates for internal and external customers for designated goods or services according to financial objectives, equity, efficiency, and administrative feasibility.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.2.7	Long-term financial plan, which looks at least five to ten years into the future; considers all appropriated funds; and is updated based upon debt position and affordability analysis, with strategies to achieve and maintain financial balance with a scorecard of key indicators of financial health that is visible to the public.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.2.8	Payment assistance programs for disadvantaged households.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.2.10	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.2.11	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Debt Management: Policies and procedures are in place to ensure effective debt management, maintenance of a competitive bond rating, and capital needs are understood and addressed for the mid- to long-term.

Example Practices		Assessments and Actions			
5.2.3.1	Debt-to-equity targets for capital spending.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
5.2.3.2	Strategic financial plans to avoid rate spikes.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.3.3	Strong master bond resolutions, such as covenants, which prescribe coverage ratios.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.3.4	Proactive bond refund evaluations (by bond counsel and financial advisors) to achieve interest cost savings; remove or change burdensome bond covenants; or restructure the stream of debt service payments to avoid default, or an unacceptable tax or rate increase.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.3.5	Level of disclosure to bond holders' analysis (addressing the utility's pension funding obligations) with input from legal counsel and financial advisors.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.3.6	Bond proceed investment risk analysis (to identify actions to mitigate risks).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.3.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #4

Procurement and Inventory: Ability to track specific utility property location and usage is in place and standardized processes for disposition of property created.

Example Practices		Assessments and Actions			
5.2.4.1	Property disposal procedures.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.4.2	Procurement of property and equipment records (including land, buildings, expendable items, installed property, uninstalled property, equipment, vehicles, and personal wear items owned by or assigned to the agency above a specified value).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
5.2.4.3	Perpetual inventory system.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.4.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.4.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.2.4.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Accounting, Auditing, and Financial Reporting: Fund balances are supported by targets, regular monitoring, and actions taken to maintain expected balances over time. Full transparency of financial performance and accounting practices is provided.

Example Practices		Assessments and Actions			
5.3.1.1	Fund balance replenishment rate targets.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.1.2	Aggregated or consolidated presentations to supplement the CAFR (customized for a broad general audience to understand the utility's financial position in an objective manner).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.1.3	Web-accessible financial statements.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.1.4	Systematic effort to annually track and manage controlled capital assets at the department level.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.1.5	Physical inventory of tangible capital assets (periodically performed and all assets are accounted for, at least on a test basis, no less than once every five years).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
5.3.1.6	Alternative or Additional Practice:	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.1.7	Alternative or Additional Practice:	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.1.8	Alternative or Additional Practice:	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Budget and Fiscal Policy: Rates and fees are viewed as more than a means to fund operations, with focus emerging on using rate and fee coverage and structures to influence customer and community behavior in line with utility sustainability objectives. Cost-sharing strategies for a range of service provisions have been explored, and those making operational and financial sense adopted. Revenue strategy incorporates an effort to diversify utility revenue sources beyond those associated with conventional treatment services.

Example Practices		Assessments and Actions			
5.3.2.1	Conservation rate structures.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.2.2	Process for designing other post-employment benefits to ensure sustainable funding approach is in place.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.2.3	Full cost of providing service estimates (calculated and considered in the basis for setting charges and fees—full cost incorporates direct and indirect costs including design, O&M, overhead, replacement, and charges for using capital facilities).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.2.4	Personnel tracking system (to accurately project budget and payroll based on the estimate of budgeted positions for the year that includes consideration of vacancy adjustments, collective bargaining, inflation, and compensation).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.2.5	Internal service rates (established for operations such as information technology, payroll, motor pool budgeting, legal, accounting, and human resources).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

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Example Practices	Assessments and Actions			
5.3.2.6	Intellectual property development and marketing (e.g., watershed analysis models).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
5.3.2.7	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
5.3.2.8	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
5.3.2.9	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Debt Management: Capital investment and debt management strategy adopt an explicit risk management posture focusing on managing investments to preserve and create new options in the future. Capital funds are created and managed to provide resources for technology innovation and partnerships are established to attract capital and risk share.

Example Practices	Assessments and Actions			
5.3.3.1	Avoiding over-investment in capital strategy. (Remain nimble by providing flexibility to take advantage of new technologies as they emerge, as well as managing for uncertainty).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
5.3.3.2	Investor relations program (to provide full and comprehensive disclosures of annual financial, operating, and other significant information in a timely manner consistent with federal, state, and local laws).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
5.3.3.3	Innovative technology deployment funds (specifically set aside for this purpose).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
5.3.3.4	Infrastructure and technology cost- and risk-sharing mechanisms (e.g., public-private partnerships for biogas development).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
5.3.3.5	Investor relations information dissemination (provided on website to the municipal securities market regarding utility debt, financial condition, and other related information).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
5.3.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #4

Procurement and Inventory: Capability is established to support disclosure requirements associated with asset value and depreciation over time. Procurement activities are integrated with the utility's sustainability commitments to ensure purchasing is aligned with utility sustainability performance expectations.

Example Practices		Assessments and Actions			
5.3.4.1	Financial reporting procedure for capital and infrastructure assets consistent with Governmental Accounting Standards Board Statement Number 34	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.4.2	Property management system (well-structured for managing property owned or used by the agency that provides for identifying	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.4.3	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.4.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
5.3.4.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

6. Infrastructure Strategy & Performance

SCOPE   **This Management Area relates to the management of infrastructure and other physical assets.**

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1   **Infrastructure O&M:** Maintenance is undertaken as performance deficiencies dictate, backed up by an explicit maintenance management system for assets above and below ground.

Example Practices		Assessments and Actions			
6.1.1.1	Work orders linked to asset inventory.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.1.2	Ongoing training and certification/licensing requirements for maintenance staff.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.1.3	Record retention of asset maintenance performed (e.g., work order system in place to keep maintenance records).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.1.4	Estimated useful life and depreciation policy (in accordance with generally accepted accounting principles).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.1.5	Manufacturer's recommended maintenance regimens followed for all equipment.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.1.6	Emergency maintenance procedures.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Asset Management: Asset management program basics are understood and recognized as important for EUM. Assets are inventoried with information stored in a standalone database.

Example Practices		Assessments and Actions			
6.1.2.1	Critical infrastructure and assets inventory (includes original cost, with new assets recorded at the time of purchase and retired assets removed from inventory).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.2.2	Critical infrastructure asset mapping (e.g., GIS-located mains, hydrants, valves, services, and tanks).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.2.3	Photographic documentation of assets to compare baseline conditions to pictures taken after the asset is impacted during an emergency event.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.2.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.2.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.1.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1

Infrastructure O&M: Proactive, risk-based maintenance, repair, and replacement are used and technology and equipment standardization efforts are undertaken with specific actions to improve the efficiency of infrastructure repair and rehabilitation.

Example Practices		Assessments and Actions			
6.2.1.1	Level of service and planned maintenance targets (with performance measures in place and tracked as part of the budget process).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.2	Collection system line inspection and cleaning (for sanitary sewer overflow prevention).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
6.2.1.3	Joint maintenance partnerships with other systems.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.4	Root cause analysis for failures used to drive maintenance of asset decisions.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.5	Underground asset replacement or restoration innovative solutions or restoration (i.e., water main relining, ice pigging, bursting).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.6	Critical spare parts inventory and all equipment either in operation or in fully ready standby mode.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.7	Visible SCADA and GIS to enhance O&M.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.8	Underground replacement/repair coordination with other projects (e.g., street paving).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.10	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.1.11	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Asset Management: Asset management is adopted as a core utility business function, guided by explicit service levels. Complete asset inventory and asset condition assessment is combined with the capability to make infrastructure repair and replacement decisions on a managed risk basis.

Example Practices		Assessments and Actions			
6.2.2.1	Regular asset performance assessments.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
6.2.2.2	Asset full life-cycle cost estimates and depreciation studies to determine expected life cycles. Program to replace underground infrastructure on either a regular cycle (e.g., 100-year life cycle) or at the asset depreciation rate.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.2.3	Hydraulic modeling analysis for the design of new and replacement infrastructure.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.2.4	Condition assessment, monitoring, and failure analysis of infrastructure assets.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.2.5	Service interruption tracking conducted relative to established levels of service targets.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.2.6	Short-term and long-term asset management and capital plan supported by commitments for necessary funding.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.2.7	Condition/functional performance standards defined for each type of capital asset.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.2.2.10	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Infrastructure O&M: Commitment to utility and community sustainability is explicitly incorporated into infrastructure investment and management efforts. Collaborative partnerships are sought and used to improve operational efficiency, manage risk, and improve resiliency.

Example Practices		Assessments and Actions			
6.3.1.1	Infrastructure project rating systems (e.g., Institute for Sustainable Infrastructure).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.1.2	Alliance partnerships for infrastructure development. (Avoid low-bid constraints).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.1.3	International Organization for Standardization (ISO) certification for asset management.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.1.4	Innovative solutions to leverage capital markets for infrastructure sustainability (e.g., equipment manufacturer partnerships, public-private contractual arrangements, design build operate).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.1.5	SCADA integrated with Computerized Maintenance Management System and GIS Enterprise system for optimizing asset management (e.g., tie maintenance and repairs to system assets).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2   **Asset Management:** Capital and natural resource asset diversification are used to manage risks and boost resiliency, while collaborative partnerships are used to improve efficiencies.

Example Practices		Assessments and Actions			
6.3.2.1	Cluster asset management partnerships (implementing identical asset management at multiple neighboring utilities and sharing staff to maintain program support).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.2.2	Multi-sector asset management relationships (e.g., with transportation sector).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.2.3	Options purchasing for future, diversified source water supply (e.g., taking an option on the future purchase of a natural water storage source, like a quarry).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.2.4	Fully developed enterprise asset management system.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.2.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
6.3.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

7. Enterprise Resiliency

SCOPE **This Management Area includes risk assessments, safety and security measures, all hazards disaster planning, emergency response and recovery, cybersecurity, business risk planning (including interdependencies with other services and utilities, knowledge loss, and financial risks), and continuity of operations planning.**

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1 **Risk Assessment and Reduction Plan:** Risks to high-consequence assets are identified and reduced.

Example Practices		Assessments and Actions			
7.1.1.1	Risk assessment for high-consequence assets (i.e., those that would result in high public health or economic impacts if damaged).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.1.2	Risk reduction plan containing countermeasures with prioritized list of mitigation projects (i.e., near- or long-term capital improvement projects).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.1.3	Low-cost or near-term process improvement projects (e.g., fences and barriers around key utility facilities and infrastructure; doors and gates routinely locked; chemicals stored safely and securely, and properly disposed of; video cameras, especially on gates and sensitive areas within the treatment plant, such as those where chemicals are stored; computers and network systems protected with passwords, and passwords changed routinely; abnormal conditions or activities reported by personnel; employee training in basic workplace safety practices and to actively monitor for abnormal or threatening situations and activities).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.1.4	Cyber security measures (e.g., virus protection and firewall programs on all computers; electronic files and network systems regularly backed up).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.1.5	Resilience measures (e.g., flood threats understood and practical mitigation options identified to protect critical assets).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
7.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2   **Emergency Response Planning:** Emergency Response Plan is developed containing basic policies and procedures.

Example Practices		Assessments and Actions			
7.1.2.1	Basic system information documentation (e.g., system maps and drawings) stored in secure on-site and off-site locations.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.2.2	Emergency roles and responsibilities identification for utility personnel and local response partner agencies (e.g., law enforcement, fire, laboratories, public health agencies, and emergency management agencies).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.2.3	General communication procedures (e.g., who activates the plan, order of notification, and contact information).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.2.4	Training and exercise plan (to identify strategic goals and priorities for training and exercises).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.2.5	Key utility response personnel training (in Incident Command System (ICS) and a plan to implement ICS during an emergency).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.2.6	Critical customer needs and requirements identification and associated response protocols.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

| PRACTICE STATEMENT #3 | **Recovery and Mitigation:** General awareness of mitigation and recovery activities, projects, and funding is in place for efficient system and services restoration. |

Example Practices		**Assessments and Actions**			
7.1.3.1	Local and state officials identified that would be involved in recovery (e.g., local community planners and State Hazard Mitigation Officers).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.3.2	Local and state official coordination (e.g., local community planners and State Hazard Mitigation Officers).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.3.3	Understand options for resilient projects, concepts, and strategies, such as flood-proofing and relocating at-risk assets.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.3.4	Awareness of the required documentation and application processes for federal funding programs.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.3.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.1.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1

Risk Assessment and Reduction Plan: Increase capacity to understand and detect threats to the system, risks to all major assets are identified and reduced, and all hazards risk management needs are fully integrated into broader utility planning and investment activities.

Example Practices	Assessments and Actions			
7.2.1.1	Risk assessment for all major assets (e.g., physical and cyber security, and business activities), including assessments of consequences and failure potential.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.1.2	Risk reduction plan with a prioritized list of risk mitigation projects that, if fully implemented, would achieve acceptable risk levels for all major assets (e.g., hardening for facilities vulnerable to security threats and natural disasters; electronic files and network systems regularly backed up; chemical delivery control; intruder detection systems).	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.1.3	Risk reduction plan integration with long-range and capital investment planning for other projects.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.1.4	Understanding regional environmental risks (e.g., fires, floods, earthquakes, tornados) and their relationship to utility operations and infrastructure (updated and maintained as current).	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.1.5	Identification and analysis of a wide range of contaminants and their properties (e.g., through the Water Contamination Information Tool).	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.1.6	Continuous on-line instrumentation for establishing trends and detecting abnormal occurrences (e.g., for pH and chlorine) in the water distribution system.	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.1.7	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.1.8	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.1.9	*Alternative or Additional Practice:*	Assessment:	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

PRACTICE STATEMENT #2

Emergency Response Planning: The Emergency Response Plan is enhanced with additional capabilities and supported through more structured relationships with potential response partners.

Example Practices		Assessments and Actions			
7.2.2.1	Alternate water source identification and alternate water supply distribution plans.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.2	Mutual aid agreements (e.g., partnerships with neighboring systems for emergency response planning, participation in Water and Wastewater Agency Response Network (WARN), membership in an integrated nationwide network of laboratories such as the Water Laboratory Alliance).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.3	Risk communication procedures for issuing messages during an emergency.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.4	Business continuity plan (for maintaining solid operations–financially, managerially, and functionally–after any incident).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.5	Routine joint training with neighboring utilities and response partners (e.g., full-scale exercises, mutual aid response/requests).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.6	Utility representation in local Emergency Operations Center.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.7	Response resources organized according to the AWWA resource typing manual.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.2.10	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3   **Recovery and Mitigation:** Implementation of mitigation and recovery activities, projects, and funding is in place.

Example Practices		Assessments and Actions			
7.2.3.1	Recovery plan (developed through collaborations with local and state officials that would be involved in recovery, including establishing clear roles and responsibilities for key partners such as local community planners and State Hazard Mitigation Officers).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.3.2	Retainer contracts with consultants and backup equipment acquisition.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.3.3	Business preparedness and continuity plan (developed, tested, and maintained to continue basic business operations during and immediately after disruptive events).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.3.4	SOPs for documenting pre- and post-disaster condition of key assets applying for the federal funding program.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.3.5	Key resilient projects, concepts, and strategies implementation, such as flood-proofing and relocating assets at risk from extreme weather events.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.2.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Risk Assessment and Reduction Plan: Emergent risks to all major assets are consistently addressed. Proactive and specialized shifts in operational procedures and updated capital investment criteria are changed when necessary.

Example Practices		Assessments and Actions			
7.3.1.1	Monitor/scan proactively for modern and emergent threats, and real-time monitoring for threat progression (e.g., watershed monitoring networks that support progressive storm alert systems).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.1.2	Integrated Water Quality Surveillance and Response System addressing potential contamination within the distribution system.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.1.3	Regular research on emerging trends that could pose new threats to the system, including changing weather patterns (i.e., climate change risk assessment integrated into existing risk assessment and reduction plan) and contamination threats.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.1.4	Diversification and redundancy for critical supply, distribution, and treatment functions (e.g., emergency interconnects or bulk loading stations).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.1.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Emergency Response Planning: Emergency Response Plan is enhanced with incident-specific Emergency Action Procedures (EAPs) for responding to a specific type of incident, and enhanced capability to test, exercise, and to refine the Emergency Response Plan is in place. Ability to respond to a full suite of unexpected events by implementing a comprehensive Emergency Response Plan.

Example Practices		Assessments and Actions			
7.3.2.1	Specific EAP's for incidents, including the following: • Severe weather response (e.g., snow, ice, temperature, lightning, flooding, hurricane, tornado) • Fire response • Electrical power outage response • Water supply interruption response • Earthquake response • Disgruntled employee response (e.g., workplace violence)	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.2.2	Reviewed and updated utility response plans based on training and exercise activities (e.g., operations-based drills, functional and full-scale exercises), operational changes, and lessons learned from emergencies	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.2.3	Capability to respond to mutual aid requests in self-sufficient manner, including cross-training staff to support neighboring utilities in the event of a mutual aid request.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.2.4	Integrated consequence management plans as part of a Water Quality Surveillance and Response System for responding to contamination within the distribution system.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.2.5	Interstate mutual aid request response plan (through Emergency Management Assistance Compact).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

PRACTICE STATEMENT #3

Recovery and Mitigation: Ability to recover from a full suite of incidents through implementation of comprehensive mitigation and recovery activities, projects, and funding is in place.

Example Practices		Assessments and Actions			
7.3.3.1	Prepared to conduct long-term public health and environmental health monitoring after a contamination incident.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.3.2	Advanced contracts and agreements to support continuity plan implementation when needed.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.3.3	Detailed decontamination decision-making framework (established for remediation/cleanup).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.3.4	Remediation techniques and remedial process for treatment works and contamination distribution/collection systems implementation ability.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.3.5	Climate adaptation plan prepared with internal utility and community partners (climate adaptation measures, such as increasing water supply storage capacity for droughts, establishing alternative power supply, and monitoring flood and event drivers).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
7.3.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

8. Water Resource Sustainability

SCOPE **This Management Area covers the utility's role in managing and planning water supply and the sustainable management of water resources, including water reliability, watershed health, water resource recovery, and watershed partnerships.**

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1 **Water Reliability:** Essential elements of future water demand and wastewater capacity (e.g., population growth, industry production) are understood and factored into utility strategic and capital planning.

Example Practices		Assessments and Actions			
8.1.1.1	Demand forecasting (e.g., population change and existing per capita water utilization rates).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.1.2	Pollutant restriction ordinances (to prevent unsuitable pollutants entering water resources through ordinance enforcement).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.1.3	Level of service targets (based on historical use of water - equivalent residential connection - wastewater, and re-use - equivalent irrigation connection) for use in planning for future adequacy.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.1.4	Service area definition.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.1.5	Source water assessment and protection program. (Identify potential sources of contamination).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2 **Supply and Demand Management:** Existing water sources treatment and distribution is optimized.

Example Practices		Assessments and Actions			
8.1.2.1	Real water loss tracking and management.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.2.2	Peak hour demand management (e.g., treat water during off-peak hours).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.2.3	Water conservation plan.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.2.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.2.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.1.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1 **Water Reliability:** Utility prepared to meet the water or sanitation needs of its customers for the reasonable future.

Example Practices		Assessments and Actions			
8.2.1.1	Single scenario supply and demand forecasting and analysis.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.1.2	Demand management plan (in place to influence short- and mid-term timing and efficiency of use).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.1.3	Drought management plan that triggers actions for rationing or other demand reduction measures.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
8.2.1.4	Ecological uses forecasts.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.1.5	Water re-use plan implementation with regional water and wastewater utilities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Supply and Demand Management: Utility has a conservation strategy covering all water users in its system and has initiated water re-use initiatives. Water use optimization is integrated into utility operational strategy, with fundamental water conservation and re-use methods implemented.

Example Practices		Assessments and Actions			
8.2.2.1	Low-flow toilets and faucets incentives for customer water conservation.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.2.2	Integrated water conservation and re-use master plan (applied to water and wastewater infrastructure, as well as long-term planning).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.2.3	Incentives for low water demand landscaping.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.2.4	Water conservation and re-use tactics for all facilities and infrastructure, and encouraged for customers (e.g., provide discounted rain barrels to customers).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.2.5	Plan implemented, including specific targets, for water recycling/re-use.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices	Assessments and Actions			
8.2.2.6	Water re-use for landscaping at utility facilities and at other municipal properties.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.2.2.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Water Reliability: Utility has an integrated, long-term water resources management approach that has addressed the potential for uncertainty in supply and demand conditions and effectively balances commercial, residential, and ecological needs. Utility is an advocate for and supporter of regional, integrated water management (e.g., a "One Water" approach), stewardship initiatives, and has an integrated water and energy long-term management approach.

Example Practices	Assessments and Actions			
8.3.1.1	Long-term water supply and demand analysis that considers long-term historical supply trends (e.g., 100+ years) and uses multiple demand and supply scenarios to identify robust implementation options.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.1.2	Watershed-based plan to address all water resource demands (commercial, industrial, residential, and ecological).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.1.3	Watershed council that integrates urban, agricultural, industrial users for optimized water allocation.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.1.4	Leadership and advocacy for a sustainability master plan with coordinated objectives for water-energy actions/efficiencies (e.g., use high-energy water treatment to mitigate water scarcity risk, such as desalinization, or minimize the use of energy to conserve natural resources and reduce greenhouse gas emissions).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
8.3.1.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Supply and Demand Management: Utility leads or participates in studies and planning for developing and estimating conservation potential of utilities over a defined planning period (e.g., 20 years).

Example Practices		Assessments and Actions			
8.3.2.1	Local or regional utility and regulator partnerships to estimate indoor and outdoor conservation potentials by customer type.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.2.2	Utility account-level information aggregation to develop prioritized water conservation initiatives/plans based on potential water savings and costs associated with conservation.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.2.3	Emerging treatment technology utilization for wastewater treatment and low-energy solutions for water reclamation and energy-focused resource production.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.2.4	Watershed-based permitting strategy participation or advocacy to enable water quality trading and market credits (e.g., advanced wetlands mitigation credits), and water rights trading.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.2.5	Nontraditional partnerships with rivers, oceans, or agricultural organizations to identify re-use opportunities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
8.3.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
8.3.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

9. Community Sustainability

SCOPE **This Management Area covers the utility's role in social, economic, and environmental impacts to its community. This includes economic development, community-wide resilience, support for disadvantaged households, and overall community sustainability and livability.**

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1 **Social Stewardship:** Utility operations, particularly siting and construction, are managed to minimize social impacts on the community.

Example Practices		Assessments and Actions			
9.1.1.1	Preconstruction notifications to households.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.1.2	Construction hours of operation policy considerate of household needs.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.1.3	Right-of-way procedures to provide for household access.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.1.4	Utility staff teams support community fundraising events.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.1.5	Truck traffic management to reduce community impacts.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.1.6	Riverfront access provision (e.g., to the extent operations impact access to, for example, a riverfront, is there an opportunity to create access for recreation or other public use?).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2   **Economic Stewardship:** Utility operations, particularly siting and construction, are managed to minimize economic impacts on the community.

Example Practices		Assessments and Actions			
9.1.2.1	Preconstruction notifications to local business.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.2.2	Customer access to businesses in construction areas carefully accommodated.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.2.3	Host community benefit program. (Provide for lower utility rates for communities that host treatment infrastructure).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.2.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.2.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3   **Environmental Stewardship:** Utility is focused on ensuring compliance across all regulatory areas to ensure a solid foundation for limiting environmental impacts of operations.

Example Practices		Assessments and Actions			
9.1.3.1	Environmental impacts review of regular utility operations and construction projects.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.3.2	Annual state of watershed data review (to maintain awareness of ecosystem trends).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.3.3	Sewer system maintenance to reduce flooding and backup potential.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.3.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
9.1.3.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.1.3.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1   **Social Stewardship:** Utility conducts operations with a view for improving community social conditions.

Example Practices		Assessments and Actions			
9.2.1.1	Women- and minority-owned business contracting policies.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.1.2	Social impact criteria inclusion in project selection methods (e.g., degree of minority community impact).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.1.3	Citizens' new facility siting committee.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.1.4	Workforce diversification policies.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.1.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

PRACTICE STATEMENT #2

Economic Stewardship: Utility conducts operations with a view for enhancing local economic opportunity.

Example Practices		Assessments and Actions			
9.2.2.1	Utility finance officer's engagement in utility efforts to think and act sustainably.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.2.2	Local materials and services sourcing policy, with targets for volume of services and products sourced from qualified local firms.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.2.3	Local and regional community and economic development planning participation.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.2.4	Supplemental environmental projects (undertaken in lieu of paying noncompliance fines).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.2.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Environmental Stewardship: Utility operations and investments use techniques that enhance environmental and ecological parameters local to its facilities and operations.

Example Practices		Assessments and Actions			
9.2.3.1	Tree planting along utility right-of-way areas, recognizing constraints such as the need to manage for possible tree root intrusion to underground pipes.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.2	Discharge management to aid local fish populations.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.3	Well-defined sustainability requirements (established and tracked for all key products and services).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

Example Practices		Assessments and Actions			
9.2.3.4	Pollution prevention plan.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.5	Low or no carbon fuels for vehicle fleet.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.6	Water re-use for environmental protection purposes (e.g., to cultivate native or endangered plant species).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.7	Annual sustainability report to show commitment to and performance on utility-related sustainability targets (e.g., greenhouse gas reduction targets and renewable energy utilization targets).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.8	Recycled materials and product purchasing policies (adopted to encourage buying products manufactured from recycled materials and using recyclable products when such products are available).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.9	Cradle-to-cradle studies to support choosing capital improvement project materials.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.10	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.11	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.2.3.12	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Social Stewardship: Utility is an active participant and takes a leadership role in driving overall community social development activities.

Example Practices		Assessments and Actions			
9.3.1.1	Elementary, secondary, and post-secondary school partnerships for collaborative efforts in promoting curriculum in water industry careers.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.1.2	Volunteer/paid intern programs, leading to career choices and workforce sustainability of critical utility jobs.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.1.3	Utility strategic plan with Triple Bottom Line decision making to support and incorporate community sustainability interests and priorities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.1.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.1.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.1.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Economic Stewardship: Utility is an active participant and takes a leadership role in driving overall community economic development activities and performance.

Example Practices		Assessments and Actions			
9.3.2.1	Collaborative agreements with local firms to identify and provide stewardship services (e.g., reused water for certain industries).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.2.2	Reliable, resilient, affordable, and sustainable water services marketing to prospective industry.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.2.3	Community leadership for promoting green job growth and workforce sustainability.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

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Example Practices	Assessments and Actions		
9.3.2.4	Biogas or electricity production for directed marketing to energy grids.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
9.3.2.5	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
9.3.2.6	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
9.3.2.7	*Alternative or Additional Practice:*	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #3

Environmental Stewardship: A utility-wide environmental stewardship plan is in place that integrates environmental sustainability programs with sustainability priorities of the broader community. Utility conducts operations and makes investments to support broader community sustainability and stewardship goals.

Example Practices	Assessments and Actions		
9.3.3.1	Natural treatment systems to create "ecological bridges" to water bodies.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
9.3.3.2	Watershed-wide forums on source protection and enhancement.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
9.3.3.3	Native plant restoration program (e.g., seed and grow native plants in utility's watershed).	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
9.3.3.4	Leadership on sustainability planning for energy and subsequent greenhouse gas reduction initiatives.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
9.3.3.5	Tree planting on utility rights-of-way, recognizing constraints such as the need to manage for possible tree root intrusion to underground pipes.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain
9.3.3.6	Watershed ecosystem services protection through land conservation acquisitions.	**Assessment:** ☐ Don't Have	☐ In Progress	☐ Complete
		Actions: ☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
9.3.3.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.3.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
9.3.3.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

10. Measurement, Continual Improvement Management, and Knowledge Management

SCOPE **This Management Area covers considerations taken by utilities when managing achievement and knowledge and measuring continuous improvement of performance.**

Level 1: Providing Adequate, Fundamental Services

PRACTICE STATEMENT #1 **Performance Measurement:** Critical performance metrics are established and tracked/monitored to help ensure compliance and achievement of improvement objectives.

Example Practices		Assessments and Actions			
10.1.1.1	Standard, basic reports to utility management and regulatory agencies addressing compliance requirements (e.g., source water quality, drinking water contaminants, wastewater discharge, and residual compliance metrics reports).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.1.2	Procedures or assigned monitoring and measuring activities to include correcting/reporting of any nonconformance (e.g., use AWWA Operational Guides to G-Series Standards to establish procedures and performance measures, where applicable).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.1.3	Proper calibration and maintenance for equipment used to measure performance metrics.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.1.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.1.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.1.	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Change Management and Continual Improvement: A management process is in place to review critical metrics regularly (e.g., monthly) and make assignments for improvement actions when needed. Periodic and comprehensive self-assessments are conducted to identify areas needing improvement.

Example Practices		Assessments and Actions			
10.1.2.1	Quarterly review to compare progress towards compliance targets and objectives and identify process or procedural changes with a focus on improvement.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.2.2	Annual review of established compliance performance levels from existing programs.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.2.3	Active management consideration of new programs/improvements needed to achieve and maintain compliance.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.2.4	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.2.5	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.1.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 2: Optimizing Operations and Services

PRACTICE STATEMENT #1

Performance Measurement: Performance metrics are established in support of level of service commitments made to regulators, rate payers, and the community and in support of continual improvement objectives of the utility.

Example Practices		Assessments and Actions			
10.2.1.1	Targeted improvement for specific level of service processes, practices, or procedures with determination of what information will be collected to objectively demonstrate improvement.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.1.2	Standardized data for comparison (e.g., compare treatment costs between plants based on 1,000 gallons of water treated).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
10.2.1.3	Level of service metrics benchmarking to industry standards where benchmarks are applicable and available.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.1.4	Monthly (or more frequent) critical performance measurements review by process owners to objectively track and trend continual improvement.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.1.5	Periodic management review of measurable objectives, targets, and program steps to authenticate measured improvement.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.1.6	Explicit performance objectives, targets, and programs to reduce significant environmental and business risks to the utility.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Change Management and Continual Improvement: Annual cycle of continual improvement is explicitly established and documented with new/revised annual objectives, supported by regularly monitored/tracked metrics, with an annual review leading to any needed program and operational improvements. Explicit continual improvement management system(s) is implemented, with an innovative workforce trained in continuous improvement tools providing a culture of continual improvement and innovation.

Example Practices		Assessments and Actions			
10.2.2.1	Operational and business practice process improvement management framework implementation and maturation. Examples of frameworks include: • ISO 14001:2004 certified or compliant Environmental Management System • AWWA Operational Guide to AWWA Standard G400, Utility Management System • Baldrige Performance Excellence Program • Balanced Scorecard	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
10.2.2.2	Document controls to capture timely changes, track changes, and establish periodic review for documents. (Capture change with program documents, SOP's, work instructions, forms, and record revisions; also, identify distribution, controlled copy location, retention, and disposition of documents).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.2.3	Voluntary improvement program participation (e.g., Partnership for Safe Water, American Public Works Association [APWA] Accreditation Program).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.2.4	Process unit and process variablility monitoring to identify improvement opportunities.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.2.5	Semi-annual review and comparison of measured performance to established industry benchmarks, and established improvement action plans.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.2.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Level 3: Transforming Operations and Services for the Future

PRACTICE STATEMENT #1

Performance Measurement: Integrated, automated system of metrics measurement and tracking is in place supporting substantial real-time tracking of key performance indicators. Metrics established and reported to support Triple Bottom Line performance across a range of environmental, economic, and social parameters.

Example Practices		Assessments and Actions			
10.3.1.1	Mobile applications to record and upload field data.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Example Practices		Assessments and Actions			
10.3.1.2	Performance measurements integration with control charts to monitor, control, and improve process performance over time by reducing variation and its source, and also achieving incremental sustainable improvements.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.1.3	Externally oriented metrics for utility-led community performance measurement (e.g., watershed health indicators; municipal government or community energy efficiency and conservation strategy; community or government greenhouse gas inventory and reduction goals; and support of community sustainability master plan with specific utility activities and performance metrics).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.1.4	Performance and sustainability metrics reports to utility management and stakeholders, including regulators and financial institutions when applicable.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.1.5	Greenhouse gas emissions reports in accordance with standard industry-accepted protocols.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.1.6	Technology-enabled improvement (e.g., power management at treatment plants and collection and distribution systems through the automated interpretation of electronically gathered data for control chart or process capability real-time monitoring).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.1.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.1.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.1.9	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

PRACTICE STATEMENT #2

Change Management and Continual Improvement: Existing continual improvement systems and culture is built upon by using continual improvement and complementary management systems across all aspects of operations, and an emphasis is placed on cultivating community thought leaders to develop and harness the intellect of human assets.

Example Practices		Assessments and Actions			
10.3.2.1	Lean and Six Sigma optimization methodologies (with supporting work teams) to deliver customer requirements without waste.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.2.2	Continuous improvement management framework (EMS, UMS, BPEP, etc.) integration with other relevant and complementary continuous improvement management systems (e.g., ANSI Z-12 Continuous Improvement Safety Management System, the ISO 50001 Energy Management Standard, and the ISO 9001:2008 Quality Management System).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.2.3	Continuous improvement tools training (e.g., for Lean, Six Sigma, and statistical tools).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.2.4	Capturing innovative ideas with incentivized formal suggestion and process improvement programs.	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.2.5	Municipal sustainability planning leadership (municipal activities addressing Triple Bottom Line decisions, measurement of sustainability improvements, and continuous improvement/sustainability reporting).	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.2.6	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.2.7	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain
10.3.2.8	*Alternative or Additional Practice:*	**Assessment:**	☐ Don't Have	☐ In Progress	☐ Complete
		Actions:	☐ Adopt	☐ Improve	☐ Maintain

Practice Statement Conclusion: ☐ Green ☐ Yellow ☐ Red

Notes on Statement Conclusion:

Conclusion

The challenges facing water sector utilities are significant and changing rapidly. These challenges are also exacerbated by uncertain economic conditions and other competing local priorities. However, along with these challenges come a myriad of important opportunities.

This document provides an important foundation for utilities across the water sector to address these challenges by improving their current operations and moving toward the goal of sustainable operations over time. More importantly, EPA recognizes that ensuring the sustainability of our nation's water sector utilities and, by extension, our nation's water resources, can only occur if regulators, utilities, states, and other partners work collaboratively and with common purpose. The challenges facing us are too daunting to do otherwise. Through this document and other efforts, EPA is committed to this collaboration going forward.

Appendix A: Resources Directory

The following appendix is a resources directory designed to support water and wastewater utilities in implementing practices in the key management areas. The directory is not meant to be an exhaustive compilation, but rather is a starting place for users of this document. A few notes for users of the resource directory:

- Resources are organized alphabetically by title, with check marks to indicate which management area(s) each resource applies to.
- Resources that are designed specifically for use by small systems are also marked.
- There is a web link for each resource. (Links to resources may change as they are updated)
- All the resources listed are free. Though, the Water Research Foundation resources do require an account.

Description and Link	Strategic Business Planning & Management and Leadership	Regulatory & Reliability Performance Operational Optimization	Customer Experience & Satisfaction and Stakeholder Understanding & Support	Workforce Development	Financial Viability	Infrastructure Strategy & Performance	Enterprise Resiliency	Community Sustainability	Measurement and Continual Improvement Management, and Knowledge Management	Small Systems
A Drop of Knowledge: The Non-Operator's Guide to Wastewater Systems Explains in simple language the technical aspects of wastewater utilities from source to tap. It would be well used as an orientation and background for new small utility board members and community decision makers. https://www.rcap.org/resources/the-non-operators-guide-to-wastewater-systems/			X							X
Benchmarking Performance Indicators for Water and Wastewater Provides objective performance measures for utility leaders to track their organizational performance. Benchmarking utility performance indicators are an essential element of continuous improvement, allowing utilities to track their own performance, compare their results to peers, and identify areas that could be strengthened or improved. https://www.awwa.org/Resources-Tools/Programs/Benchmarking	X	X	X	X	X	X	X	X	X	
Business Continuity Planning for Water Utilities: Guidance Document Guidance Document for Business Continuity Planning (BCP) designed to be used with the corresponding BCP template to assist users in the development of a BCP for a water sector utility. Business Continuity Planning's end goal is maintaining solid operations – financially, managerially, and functionally after any incident. To further enhance an understanding of the BCP process, a series of video training modules was developed to accompany the BCP guidance document and template. https://www.waterisac.org/system/files/Business+Continuity+Planning+for+Water+Utilities.pdf	X	X				X	X		X	
Climate Ready Water Utilities Provides access to resources containing climate-related information relevant to the water sector. The Toolbox contains highlighted resources, which are organized into categories to help guide the user to the most relevant information. CRWU resources are updated frequently. https://www.epa.gov/crwu	X				X	X	X	X		

Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

Description and Link	Strategic Business Planning & Management and Leadership	Regulatory & Reliability Performance Operational Optimization	Customer Experience & Satisfaction and Stakeholder Understanding & Support	Workforce Development	Financial Viability	Infrastructure Strategy & Performance	Enterprise Resiliency	Community Sustainability	Measurement and Continual Improvement Management, and Knowledge Management	Small Systems
Cybersecurity Guidance from AWWA Collection of resources on cybersecurity maintained by the American Water Works Association. https://www.awwa.org/Resources-Tools/Resource-Topics/Risk-Resilience/Cybersecurity-Guidance							X			
Cybersecurity Assessments and Technical Assistance The EPA's Cybersecurity Evaluation Program offers virtual assessments to help drinking water and wastewater utilities evaluate and enhance their cybersecurity practices with the guidance of a cybersecurity professional. Additionally, the program provides direct remote support from experts to address specific cybersecurity questions and challenges faced by utilities. https://www.epa.gov/waterresilience/cybersecurity-assessments		X					X			
Develop or Update an Emergency Response Plan Emergency Response Plan (ERP) Templates and Instructions PDF documents for drinking water and wastewater utilities, features a Word format embedded blank ERP template that can be easily accessed and modified by utility personnel to meet their own water system. needs. https://www.epa.gov/sites/production/files/2015-03/documents/erp-long-outline.pdf							X			
Effective Utility Management: A Primer for Water and Wastewater Utilities The *Primer* presents a framework for water and wastewater utility managers to use when assessing the effectiveness of their utility based on a series of 10 Attributes of Effectively Managed Utilities and Keys to Management Success. https://www.epa.gov/system/files/documents/2024-08/eum-primer.pdf	X	X	X	X	X	X	X	X	X	
Effective Utility Management: Resource Toolbox A set of tools that are organized according to the Ten Attributes of Effectively Managed Water Sector Utilities and Five Keys to Management Success, providing a set of resources relevant to each Attribute and Key as well as information on where to find these resources. https://www.watereum.org/resources/resource-toolbox/	X	X	X	X	X	X	X	X	X	
Emergency Response for Drinking Water and Wastewater Utilities Includes guidance documents and other resources on resilience topics, including: training and exercise, mutual aid and assistance, coordination with state agencies, all-hazard planning, emergency response plan development, risk and crisis communication, and more. https://www.epa.gov/waterutilityresponse#te2							X			
Energy Efficiency Best Practices for North American Drinking Water Utilities Includes a compendium of best practices for energy efficient design and operation of water industry assets. Compendium includes successful strategies to help water utilities reduce energy consumption in water transmission, treatment, storage, and distribution. https://www.waterrf.org/research/projects/energy-efficiency-best-practices-north-american-drinking-water-utilities		X				X				

Description and Link	Strategic Business Planning & Management and Leadership	Regulatory & Reliability Performance Operational Optimization	Customer Experience & Satisfaction and Stakeholder Understanding & Support	Workforce Development	Financial Viability	Infrastructure Strategy & Performance	Enterprise Resiliency	Community Sustainability	Measurement and Continual Improvement Management, and Knowledge Management	Small Systems
Energy Efficiency for Water Utilities Provides links to several guides and tools for tracking and understanding water utility energy use. https://www.epa.gov/sustainable-water-infrastructure/energy-efficiency-water-utilities		X								
Energy Star Performance Benchmarking Portfolio Manager Portfolio Manager is an interactive resource management tool that enables you to benchmark the energy use of any type of building, all in a secure online environment. Nearly 25% of U.S. commercial building space is already actively benchmarking in Portfolio Manager, making it the industry-leading benchmarking tool. https://www.energystar.gov/buildings/benchmark		X								
Ensuring a Sustainable Future: An Energy Management Guidebook for Wastewater and Water Utilities Provides water and wastewater utility managers with step-by-step methods to identify, implement, measure, and improve efficiency and renewable opportunities at their utilities. https://www.epa.gov/sustainable-water-infrastructure/energy-use-assessment-water-and-wastewater-systems		X				X			X	
Financial Technical Assistance and Tools for Water Infrastructure A collection of tools and resources from the EPA Water Infrastructure and Resiliency Finance Center that works with on-the-ground partners to provide financial technical assistance to communities. https://www.epa.gov/waterfinancecenter/financial-technical-assistance-and-tools-water-infrastructure					X	X	X			
Federal Funding for Utilities - Water/Wastewater - in National Disasters (Fed FUNDS) Fed FUNDS provides tailored information to water and wastewater utilities about applicable federal disaster funding programs. The Fed FUNDS web pages address national-level disasters but can also apply to large-scale and local disasters that result in service interruptions and significant damage to critical water/wastewater infrastructure. https://www.epa.gov/fedfunds					X	X	X			
Financing Alternatives Comparison Tool (FACT) A financial analysis tool that calculates and compares the costs of various financing options for water quality projects. https://www.epa.gov/cwsrf/financing-alternatives-comparison-tool	X				X					
Formulate Great Rates: The Guide to Conducting a Rate Study for a Small System A guide to developing a fair and equitable rate structure in a small drinking or wastewater system. https://www.rcap.org/managerial-financial/formulate-great-rates-guidebook/	X				X					X

Description and Link	Strategic Business Planning & Management and Leadership	Regulatory & Reliability Performance Operational Optimization	Customer Experience & Satisfaction and Stakeholder Understanding & Support	Workforce Development	Financial Viability	Infrastructure Strategy & Performance	Enterprise Resiliency	Community Sustainability	Measurement and Continual Improvement Management, and Knowledge Management	Small Systems
Getting in Step: Engaging and Involving Stakeholders in Your Watershed Provides tools needed to effectively engage stakeholders to restore and maintain healthy environmental conditions through community support and cooperative action. Can help utilities to involve stakeholders in local or regional watershed efforts. https://cfpub.epa.gov/npstbx/files/stakeholderguide.pdf			X					X		
Green Infrastructure Provides background information and resources on green infrastructure strategies. https://www.epa.gov/green-infrastructure	X					X		X		
How to Develop a Multi-Year Training and Exercise Plan Provides background on different types of training and exercise, describes the importance of a training and exercise plan, provides a multi-year plan template, and includes attachments with example plan documents, exercise resources, and planning resources. https://www.epa.gov/sites/production/files/2015-05/documents/how_to_develop_a_multi-year_training_and_exercise_plan_fact_sheet.pdf							X			
Making the Right Choices for Your Utility: Using Community Priorities and Sustainability Criteria for Water Infrastructure Decision-Making Building from EPA's Planning for Sustainability Handbook, this guide provides an alternatives evaluation framework to value triple-bottom line criteria (environmental, economic and social) in the actual comparison of infrastructure alternatives. https://www.epa.gov/sustainable-water-infrastructure/making-right-choices-your-utility	X				X			X	X	
NIST Cybersecurity Framework The *Framework for Improving Critical Infrastructure Cybersecurity* includes standards, guidelines, and practices to promote the protection of critical infrastructure and manage cybersecurity-related risks. https://www.nist.gov/cyberframework							X			
Optimizing the Water Utility Customer Contact Center Identifies best practices, processes, and technologies for water utility customer contact center operations to optimize the contact center as a utility-wide resource for communications. Identifies key components and characteristics of the customer contact center of the future. https://www.waterrf.org/research/projects/optimizing-water-utility-customer-contact-center			X							
Partnership for Clean Water A global optimization and recognition program for wastewater utilities and was established as a parallel program to the Partnership for Safe Water. The Partnership offers self-assessment and optimization programs so that operators, managers, and administrators have the tools to improve performance above and beyond even proposed regulatory levels. https://www.awwa.org/Resources-Tools/Programs/Partnership-for-Clean-Water		X				X		X		

Description and Link	Strategic Business Planning & Management and Leadership	Regulatory & Reliability Performance Operational Optimization	Customer Experience & Satisfaction and Stakeholder Understanding & Support	Workforce Development	Financial Viability	Infrastructure Strategy & Performance	Enterprise Resiliency	Community Sustainability	Measurement and Continual Improvement Management, and Knowledge Management	Small Systems
Partnership for Safe Water An unprecedented alliance of six prestigious drinking water organizations with the mission to improve the quality of water delivered to customers by optimizing water system operations. The Partnership offers self-assessment and optimization programs so that operators, managers and administrators have the tools to improve performance above and beyond even proposed regulatory levels. https://www.awwa.org/resources-tools/programs/partnership-for-safe-water		X				X		X		
Performance Benchmarking for Effectively Managed Water Utilities A tool and corresponding resources to help water and wastewater utilities evaluate their current and desired levels of performance related to the Effective Utility Management Ten Attributes. This tool and resources are aligned with the *EUM Primer* and provides a structured process to help utilities conduct a self-assessment on any or all of the Ten Attributes. https://www.waterrf.org/research/projects/performance-benchmarking-effectively-managed-water-utilities	X	X	X	X	X	X	X	X	X	
Planning for Sustainability: A Handbook for Water and Wastewater Utilities Describes steps that utilities can take to enhance their existing planning processes to ensure that water infrastructure investments are cost-effective over their lifecycle, resource efficient, and support other relevant community goals. https://www.epa.gov/sustainable-water-infrastructure/handbook-planning-sustainability-water-and-wastewater-utilities	X				X				X	
SRF Fund Management Handbook Guidance for both EPA and state State Revolving Fund (SRF) managers that guides them through the process of strategic fund management by putting the major financial topics concerning the SRF programs together in a single place. https://www.epa.gov/cwsrf/srf-fund-management-handbook	X				X					
Reference Guide for Asset Management Tools Designed for state staff and technical assistance providers who are assisting small- and medium-sized drinking water or wastewater systems in identifying resources that can be used to implement asset management practices. https://www.epa.gov/dwcapacity/reference-guide-asset-management-tools						X				
Resource Guide to Effective Utility Management and Lean: Improving Performance and Addressing Key Management Priorities at Water-Sector Utilities Provides information and case studies to help utilities use Lean techniques and tools to achieve the outcomes associated with the EUM attributes. https://www.epa.gov/sustainable-water-infrastructure/resource-guide-effective-utility-management-and-lean	X				X				X	
Rural and Small Systems Guidebook to Sustainable Utility Management The *Guidebook* uses the Effective Utility Management (EUM) framework and is tailored to the needs of rural and small systems. It is designed to help them become more successful and resilient service providers and includes a utility self-assessment. https://www.epa.gov/sustainable-water-infrastructure/rural-and-small-systems-guidebook-sustainable-water-and-wastewater	X	X	X	X	X	X	X	X		X

Description and Link	Strategic Business Planning & Management and Leadership	Regulatory & Reliability Performance Operational Optimization	Customer Experience & Satisfaction and Stakeholder Understanding & Support	Workforce Development	Financial Viability	Infrastructure Strategy & Performance	Enterprise Resiliency	Community Sustainability	Measurement and Continual Improvement Management, and Knowledge Management	Small Systems
Simple Tools for Effective Performance (STEP) Guide Series The Simple Tools for Effective Performance (STEP) guide series are designed to help owners and operators of community water systems (CWs) and non-transient non-community water systems (NTNCWs) gain understanding on a variety of drinking water topics. https://www.epa.gov/dwcapacity/simple-tools-effective-performance-step-guide-series	X				X					X
The Basics of Financial Management for Small Community Utilities A primer and how-to guide that is ideal for a board member of a drinking or wastewater utility who needs to understand the financial aspects of a small utility's operations. https://www.rcap.org/managerial-financial/the-basics-of-financial-management-for-small-community-utilities/					X					X
The Effective Utility Management Resource Toolbox Provides a compilation of resources from collaborating associations and agencies on the EUM effort and is organized according to the Ten Attributes and Five Keys to Management Success. http://www.watereum.org/resources/resource-toolbox/	X	X	X	X	X	X	X	X	X	
The Water Resources Utility of the Future: A Blueprint for Action Presents the clean water industry's vision for the future, as well as a series of actions that will help deliver this vision. The Utility of the Future will transform the way that traditional wastewater utilities view themselves and manage their operations, including their relationships with communities and their contributions to local economies. http://www.wef.org/globalassets/assets-wef/direct-download-library/public/03---resources/waterresourcesutilityofthefuture_blueprintforaction_final.pdf	X	X	X		X		X	X		
Value of Water Campaign Public education materials about the importance of clean, safe, and reliable water to and from every house and community, to help ensure quality water service for future generations. https://uswateralliance.org/programs/the-value-of-water-campaign/			X					X		
Water Finance Clearinghouse The Water Finance Clearinghouse is an easily navigable web-based portal to help communities locate information and resources that will assist them in making informed decisions for their drinking water, wastewater, and stormwater infrastructure needs. https://ofmpub.epa.gov/apex/wfc/f?p=165:1							X	X		
Weather & Hydrologic Forecasting for Water Utility Incident Preparedness and Response Includes resources for national weather hazards, national forecast charts, flood risks, drought monitors, and more. https://www.epa.gov/waterutilityresponse/weather-and-hydrologic-forecasting-water-utility-incident-preparedness-and							X	X		

Description and Link	Strategic Business Planning & Management and Leadership	Regulatory & Reliability Performance Operational Optimization	Customer Experience & Satisfaction and Stakeholder Understanding & Support	Workforce Development	Financial Viability	Infrastructure Strategy & Performance	Enterprise Resiliency	Community Sustainability	Measurement and Continual Improvement Management, and Knowledge Management	Small Systems
Work for Water Campaign promoting water careers as both professionally fulfilling and aligned to the greatest public health and environmental causes of our day. Includes resources for recruitment and retention, as well as management strategies. http://www.workforwater.org				X						
Workforce WRF factsheet that highlights WRF projects that explore the various aspects of the water workforce. https://www.waterrf.org/system/files/resource/2022-09/4949-Workforce.pdf				X						
WRF Communications Related Projects A collection of Water Resource Foundation projects and case studies that have been developed on communications. Topics include: Risk Communication, Inform and Educate, Effective Customer Communication, Stakeholder Collaboration, Communication Technology, and General Communication https://www.waterrf.org/serve-file/Communications.pdf			X					X		

Appendix B: Acknowledgments

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Moving Toward Sustainability: Sustainable and Effective Practices for Creating Your Water Utility Roadmap

Effective Utility Management Ten Attributes and Five Keys to Management Success

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MOVING TOWARD SUSTAINABILITY:

Effective Practices for Creating Your Water Utility Roadmap