Water Sector Collaboration on Effective Utility Management

Fact Sheet

May 2007

BACKGROUND

In May 2006, the Association of Metropolitan Water Agencies; the American Public Works Association; the American Water Works Association; the National Association of Clean Water Agencies; the National Association of Water Companies; the United States Environmental Protection Agency; and the Water Environment Federation entered into a Statement of Intent[1] to "formalize a collaborative effort among the signatory organizations in order to promote effective utility management." These "Collaborating Organizations" chartered the Effective Utility Management Steering Committee (Committee) to advise them on a future, joint water utility sector management strategy applicable to water sector utilities across the country. This fact sheet summarizes the Committee's findings and recommendations.

The Committee found that water sector utilities across the country face common challenges, such as rising costs and workforce complexities, and need to focus attention on these areas to deliver quality products and services and sustain community support. Within this context, the Steering Committee identified four primary building blocks of effective water utility management, which could become the basis of a future water utility sector management strategy. These building blocks, described below, are: Attributes of Effectively Managed Water Sector Utilities, Keys to Management Success, Water Utility Measures, and Water Utility Management Resources.

TEN ATTRIBUTES OF EFFECTIVELY MANAGED WATER SECTOR UTILITIES

The Committee identified "Ten Attributes of Effectively Managed Water Sector Utilities" (Attributes) that provide a succinct indication of where effectively managed utilities focus and what they strive to achieve. Further, the Committee recommended that the water utility sector adopt and utilize these Attributes as a basis for promoting improved management within the sector. The Attributes can be viewed as a continuum of, or a set of building blocks for, management improvement opportunities. The Attributes, are deliberately not listed in a particular order; since utility managers will determine their relevance and relative importance based on individual circumstances.

[1] See http://www.epa.gov/water/infrastructure/utility-mgmt-joint-statement.pdf.

Product Quality

Produces potable water, treated effluent, and process residuals in full compliance with regulatory and reliability requirements and consistent with customer, public health, and ecological needs.

Customer Satisfaction

Provides reliable, responsive, and affordable services in line with explicit, customer-accepted service levels. Receives timely customer feedback to maintain responsiveness to customer needs and emergencies.

Employee and Leadership Development

Recruits and retains a workforce that is competent, motivated, adaptive, and safe-working. Establishes a participatory, collaborative organization dedicated to continual learning and improvement. Ensures employee institutional knowledge is retained and improved upon over time. Provides a focus on and emphasizes opportunities for professional and leadership development and strives to create an integrated and well-coordinated senior leadership team.

Operational Optimization

Ensures ongoing, timely, cost-effective, reliable, and sustainable performance improvements in all facets of its operations. Minimizes resource use, loss, and impacts from day-to-day operations. Maintains awareness of information and operational technology developments to anticipate and support timely adoption of improvements.

Financial Viability

Understands the full life-cycle cost of the utility and establishes and maintains an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues. Establishes predictable rates—consistent with community expectations and acceptability—adequate to recover costs, provide for reserves, maintain support from bond rating agencies, and plan and invest for future needs.

Operational Resiliency

Ensures utility leadership and staff work together to anticipate and avoid problems. Proactively identifies, assesses, establishes tolerance levels for, and effectively manages a full range of business risks (including legal, regulatory, financial, environmental, safety, security, and natural disaster-related) in a proactive way consistent with industry trends and system reliability goals.

Community Sustainability

Is explicitly cognizant of and attentive to the impacts its decisions have on current and long-term future community and watershed health and welfare. Manages operations, infrastructure, and investments to protect, restore, and enhance the natural environment; efficiently use water and energy resources; promote economic vitality; and engender overall community improvement. Explicitly considers a variety of pollution prevention, watershed, and source water protection approaches as part of an overall strategy to maintain and enhance ecological and community sustainability.

Infrastructure Stability

Understands the condition of and costs associated with critical infrastructure assets. Maintains and enhances the condition of all assets over the long-term at the lowest possible life-cycle cost and acceptable risk consistent with customer, community, and regulator-supported service levels, and consistent with anticipated growth and system reliability goals. Assures asset repair, rehabilitation, and replacement efforts are coordinated within the community to minimize disruptions and other negative consequences.

Stakeholder Understanding and Support

Engenders understanding and support from oversight bodies, community and watershed interests, and regulatory bodies for service levels, rate structures, operating budgets, capital improvement programs, and risk management decisions. Actively involves stakeholders in the decisions that will affect them.

Water Resource Adequacy

Ensures water availability consistent with current and future customer needs through long-term resource supply and demand analysis, conservation, and public education. Explicitly considers its role in water availability and manages operations to provide for long-term aquifer and surface water sustainability and replenishment.

KEYS TO MANAGEMENT SUCCESS

As a complement to the Attributes, the Committee identified five "Keys to Management Success" or approaches and systems that foster utility management success.

1. Leadership: Leadership plays a critical role in effective utility management, particularly in the context of driving and inspiring change within an organization. In this context, the term "leaders" refers both to individuals who champion improvement, and to leadership teams that provide resilient, day-to-day management continuity and direction. Effective leadership ensures the utility's direction is understood, embraced, and followed on an ongoing basis throughout the management cycle.

2. Strategic Business Planning: Strategic business planning helps utilities balance and drive integration and cohesion across, the Attributes. It involves taking a long-term view of utility goals and operations and establishing an explicit vision and mission that guide utility objectives, measurement efforts, investments, and operations.

3. Organizational Approaches: A variety of organizational approaches can be critical to management improvement. These approaches include establishing a "participatory organizational culture" that actively seeks to engage employees in improvement efforts, deploying an explicit change management process, and utilizing implementation strategies that seek early, step-wise victories to build momentum and motivation.

4. Measurement: A focus and emphasis on measurement is the backbone of successful continual improvement management and strategic business planning. Successful measurement efforts tend to be viewed on a continuum, starting with basic internal tracking.

5. Continual Improvement Management Framework: A "plan, do, check, act" continual improvement management framework typically includes several components, such as conducting an honest and comprehensive self-assessment; establishing explicit performance objectives and targets; implementing measurement activities; and responding to evaluations through the use of an explicit change management process.

The Committee recommended that the Keys to Management Success be referenced and promoted with the Attributes to enable more effective utility management within the sector.

WATER UTILITY MEASURES

The Committee strongly affirmed measurement as critical to effective utility management. The Committee also noted that utility measurement is complicated and needs to be done carefully to be useful. The challenges presented by performance measurement include deciding what to measure, identifying meaningful measures, and making sure that data are collected in a way that allows meaningful comparisons to be made. Consideration of these factors is important if the data are to be used to make real improvements and to communicate accurate information, and help ensure that the information is interpreted correctly.

Within this context, the Committee identified a set of high-level, illustrative example water utility measures related to the Attributes and recommended that, to simply get started on exploring this component of the future sector strategy, these or other example utility measures be made available in a future sector strategy. These *preliminary* example measures included, for instance, under

Operational Optimization, the amount of distribution system water loss; under Operational Resiliency, whether the utility has a current all-hazards disaster readiness response plan (yes/no)?; and, under Stakeholder Understanding and Support, whether the utility consults regularly with stakeholders (yes/no)?

The Committee recommended a longer-term initiative to identify a cohesive set of targeted, generally applicable, individual water sector utility measures. The goal would be to provide robust measures for individual utilities to use in gauging and improving operational and managerial practices and for communicating with external audiences such as boards, rate payers, and community leaders.

WATER UTILITY MANAGEMENT RESOURCES

The Committee believed that water utilities are interested in tools that can support management progress, and that many utilities would benefit from a "helping hand" that can guide them to useful management resources, particularly in the context of the Attributes. Therefore, the Committee recommended that the future sector strategy include a "resource toolbox" linked to the Attributes and submitted a preliminary list of management resources that could be used as a starting point.

NEXT STEPS FOR THE SECTOR STRATEGY

The Collaborating Organizations have identified the following actions to build upon the recommendations and work of the Steering Committee.[2]

Short-Term Actions

- ✓ Implement a coordinated and comprehensive rollout of a sector strategy as soon as possible.
- ✓ Create a standard presentation kit that could be used by Collaborating Organizations, utilities, and others to explain the initiative and its findings.
- ✓ Create a basic resource toolbox to help utilities manage more effectively based on the Attributes and the Keys to Management Success.
- ✓ Develop a "primer" to help utility managers understand the background and objectives of the initiative and help them use the Attributes and apply the Keys to Management Success.
- ✓ Jointly sponsor web casts and other educational sessions to describe the initiative and its findings.

Long-Term Actions

- ✓ Explore options to link the Attributes into existing Collaborating Organizations' recognition or awards programs, as appropriate, and consider the need for a joint sector-wide recognition/awards program for utilities that adopt management strategies based on the Attributes and Keys to Management Success.
- ✓ Explore further partnerships with organizations that may be interested in the Steering Committee's final report and in promoting the report's findings and recommendations within their individual membership bases.
- ✓ Develop a cohesive set of targeted, generally applicable, individual water sector utility measures that could be used to gauge progress. This effort could build on existing programs and other sources of information.
- ✓ Continue to communicate and coordinate efforts to promote effective utility management.

[2] All commitments made by EPA and the other signatories in this document are subject to the availability of funds and budget priorities. Nothing in this document, in and of itself, obligates EPA or the other organizations to expend funds or enter into any contract, or other agreement or incur other financial obligations.