



Technical Customer Advisory Committee

AGENDA

Members

David Brookshire	Elaine Hebard
Amy Ewing	Laura McCarthy
Laurie Firor	Ege Richardson
Mike Hightower	Scott Verhines
Dave Hill	

Thursday, May 5, 2016	4:00 PM	ABCGC – 7th Floor Conference Room 7096
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1. Call to Order – Note presence of quorum, Introductions	4:00-4:05
2. Approval of Agenda	4:00-4:05
3. Approval of April 7, 2016 Action Summary	4:00-4:05
4. New Supply Alternatives and Portfolio Examples	4:05-5:20
5. Strategy Policies Update	5:20-5:40
6. Overview of Effective Utility Management	5:40-5:50
7. Public Comment	5:50-5:55
8. Final Comments or Questions	5:55-6:00
9. Adjournment	6:00

NOTICE TO PERSONS WITH DISABILITIES: If you have a disability and require special assistance to participate in this meeting, please contact the Water Utility Authority Office, Suite 5012, Albuquerque/Bernalillo County Government Center, phone 768-2500 or by the TTY 1-800-659-8331, as soon as possible prior to the meeting date.



Technical Customer Advisory Committee

ACTION SUMMARY

April 7, 2016

Members Present:

David Brookshire
Amy Ewing
Laurie Firor
Elaine Hebard
Mike Hightower
Dave Hill
Laura McCarthy
Ege Richardson
Scott Verhines

Members Excused:

Water Authority Staff Present:

Frank Roth, Senior Policy Manager
Stan Allred, Chief Financial Officer
John Stomp, Chief Operations Officer
Katherine Yuhas, Water Conservation Officer
Rick Shean, Water Quality Hydrologist
Andrew Lieuwen, Water Rights Manager
David Morris, Public Affairs Manager
Kelsey Bicknell, Intern

Consultants Present:

David Jordan, INTERA Inc.
Greg Gates, CH2M
Lee Brown, UNM Economics Dept.

Others Present:

Norm Gaume

Item 1 – Call to Order - Note presence of quorum

The meeting was called to order at 4:00 pm by Chair Laurie Firor.

Item 2 – Approval of Agenda

Laura McCarthy made a motion to approve the agenda. Mike Hightower seconded the motion. The motion passed on an 8-0 vote.

For: 8 Brookshire, Firor, Hebard, Hightower, Hill, McCarthy, Richardson, Verhines
Against: 0
Excused: 1 Ewing

Item 3 – Approval of March 3, 2016 Action Summary

Ege Richardson made a motion to approve the action summary. David Brookshire seconded the motion. The motion passed on an 8-0 vote.

For: 8 Brookshire, Firor, Hebard, Hightower, Hill, McCarthy, Richardson, Verhines
Against: 0
Excused: 1 Ewing

Item 4 – ABCWUA FY17 Budget Overview

Stan Allred provided an overview of the Water Authority's proposed operating and capital budgets for Fiscal Year 2017. He reviewed the budget highlights and assumptions, and the projected expenditures and revenues. He also discussed the capital improvement appropriations and the planned spending for the next ten years.

Amy Ewing entered during Item #4.

Item 5 – Supply Alternatives Chapter

Committee members provided comments on the Supply Alternatives Chapter for the Water Resources Management Strategy update.

Item 6 – Supply Gap Presentation

David Jordan outlined the road map for updating the Strategy summarizing demand and supply projections, the groundwater reserve, and planning for climate variability. He reviewed the range of projected supply categorized by the low, medium and high demand matrix. It was recommended by the consulting team and staff that medium demand and medium supply are the most reasonable and represents a balanced approach. The adaptive management process allows the Water Authority to be flexible and responsive in the future.

David Jordan also reviewed the criteria scoring and provided an example of the Bosque Reuse. The committee will review the alternatives ranking in more detail at the May meeting.

Item 7 – Public Comment

Discussion followed public comment regarding the development and posting of a public domain version of the water budget model and the results from the model. Additional technical details and results will be provided to the TCAC, but the member of the public stated that he did not want the model, but only the results which will be made available at future meetings.

Item 8 – Final Comments and Questions

There was a request for staff to provide a presentation on Effective Utility Management.

Item 9 – Adjournment

The meeting concluded at 6:05 pm.



Albuquerque Bernalillo County
Water Utility Authority

Water Resources Management Strategy 2017 Update

**ABCWUA TCAC MEETING
MAY 5, 2016**

Topics for Discussion

Albuquerque Bernalillo County
Water Utility Authority

- Upcoming Customer Conversations
- Alternatives Ranking
- Example Portfolio Development Process
- Reorganization of Current Policies

Upcoming Customer Conversations



- Tuesday June 14, 2016
Manzano Mesa Multigenerational Center, 501 Elizabeth Street SE, West Social Hall
- Thursday, June 16, 2016
Don Newton/Taylor Ranch Community Center, 5900 Kachina St. NW
- Wednesday, June 29, 2016
North Domingo Baca Multigenerational Center, 7521 Carmel Ave. NE
- Thursday, June 30, 2016
National Hispanic Cultural Center, 1701 4th Street SW

Alternatives by Type



- Conservation (3 alternatives)
- Non-Potable and Reuse (3 alternatives)
- Surface Water (3 alternatives)
- ASR (1 alternative)
- Stormwater Capture (3 alternatives)
- Interbasin Transfer (3 alternatives)
- Indirect/Direct Potable Reuse (3 alternatives)
- Fee, Credit, or Banked Water (3 alternatives)
- New Surface Storage (3 alternatives)
- Water Rights Acquisition (1 alternative)
- Watershed Management (2 alternatives)
- Brackish Groundwater (2 alternatives)
- Permit Modification (1 alternative)

Total: 31

Ranking Criteria



Quality of Life	Cultural, Historical and Aesthetic Values
	Socioeconomic Impact
Environmental Protection	Ecosystem Protection
	Carbon Footprint
Long Term Sustainability and Resiliency	Yield
	Reliability
	Frequency of Availability
Implementability	Regional Impact
	Technical Feasibility
	Permitting
Timing	Time to Implement

Alternatives Ranking Process



- Collaborative process by the Technical Team
- Each team member performed an initial ranking
- Calculated averages and identified variances
- Discussed and resolved differences
- Some values were calculated (yield, frequency, etc.)



Example Ranking



Alternative	Rank	Score	Yield	Reliability	Frequency of Availability	Regional Impact	Technical Feasibility	Permitting	Time to Implement	Cultural, Historical, and Aesthetic Values	Socioeconomic Impact	Ecosystem Protection	Carbon Footprint
Expand and connect Southside reuse system to North I-25 Non-Potable Project	6	27.1	4.6	4.4	1.1	3	2	2	2	1	1	3	3

Preliminary Results – Do Not Quote or Cite

Ranking Results Color-Coded for Interpretation



- Green: easiest to implement using existing permits and infrastructure or minimal new permitting
- Yellow: some new infrastructure and permitting required
- Red: potential future projects but not viable in the short term: keep for future consideration

Preliminary Results – Do Not Quote or Cite

Top Ten Alternatives

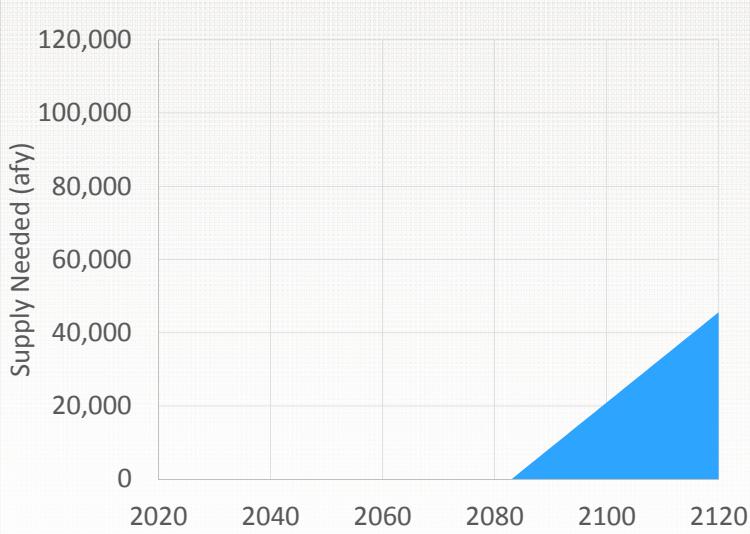


1. Conservation: 110 GPCD in 20 years
2. Conservation: 120 GPCD in 10 years
3. Excess San Juan Chama water
4. Future Storage Fee Water
5. Lease or short-term purchase of additional San Juan-Chama water
6. Expand and connect Southside reuse system to the North I-25 Non-potable Project
7. Large-Scale ASR
8. Watershed management – San Juan River tributaries
9. Watershed management – Rio Grande main stem and/or tributaries
10. New storage – 10,000 ac-ft capacity

Preliminary Results – Do Not Quote or Cite

Portfolio Selection Process

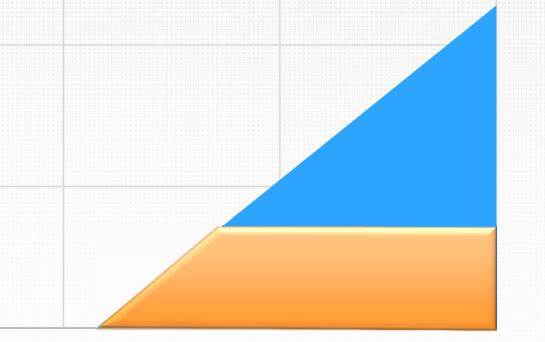
- Select additional alternatives sequentially to fill projected supply gap as needed
(Medium Demand/Medium Supply is shown)



Portfolio Selection Process



Alternative 1



2080 2100 2120

- Add alternatives sequentially until the projected supply gap is filled

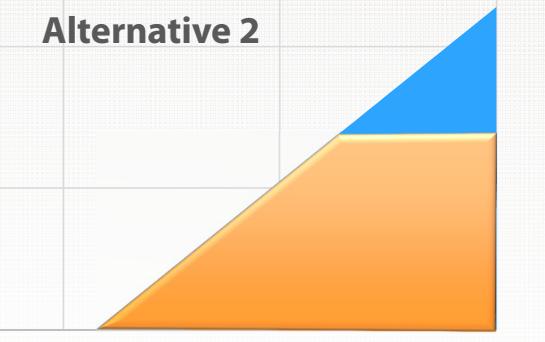
Portfolio Selection Process



Alternative 1

+

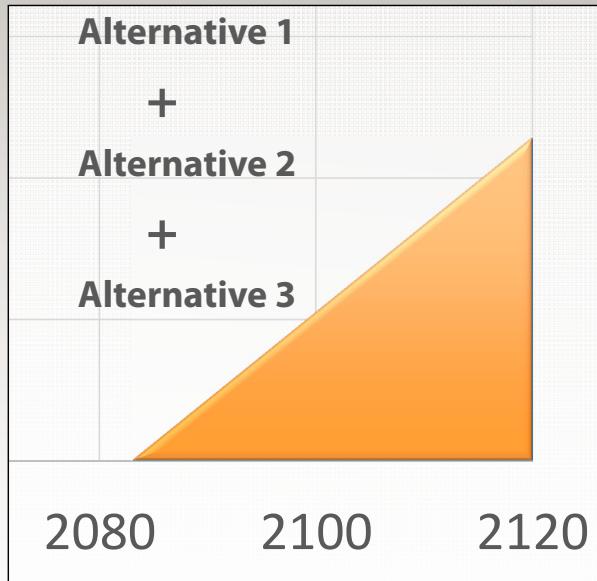
Alternative 2



2080 2100 2120

- Add alternatives sequentially until the projected supply gap is filled

Portfolio Selection Process



- Add alternatives sequentially until the projected supply gap is filled
- Portfolio = Alternative 1 + Alternative 2 + Alternative 3

Portfolio Selection Process



- Include the “no regrets” alternatives in all portfolios
 - Excess San Juan–Chama water
 - Lease or purchase excess San Juan–Chama water
 - Storage fee water
- Select alternatives from the Top Ten as “building blocks” for new supply scenarios
- Balanced approach based on conservation, reuse, ASR
- Supply will be added incrementally as needed
- Incremental need for supply is based on demand projections

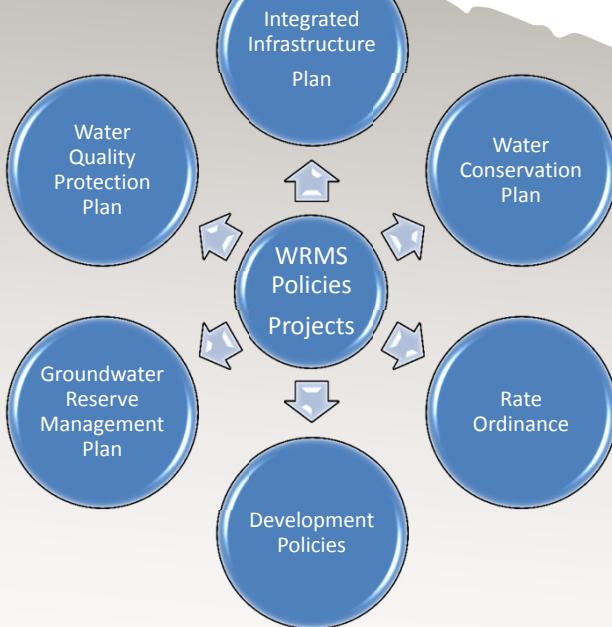
Add Supply

Add Supply

Structure of WRMS Policies



- WRMS Policies allow for and guide the development of water-supply projects
- Other plans and policies outside of the WRMS focus on areas such as water conservation, development review, groundwater reserve management, etc.

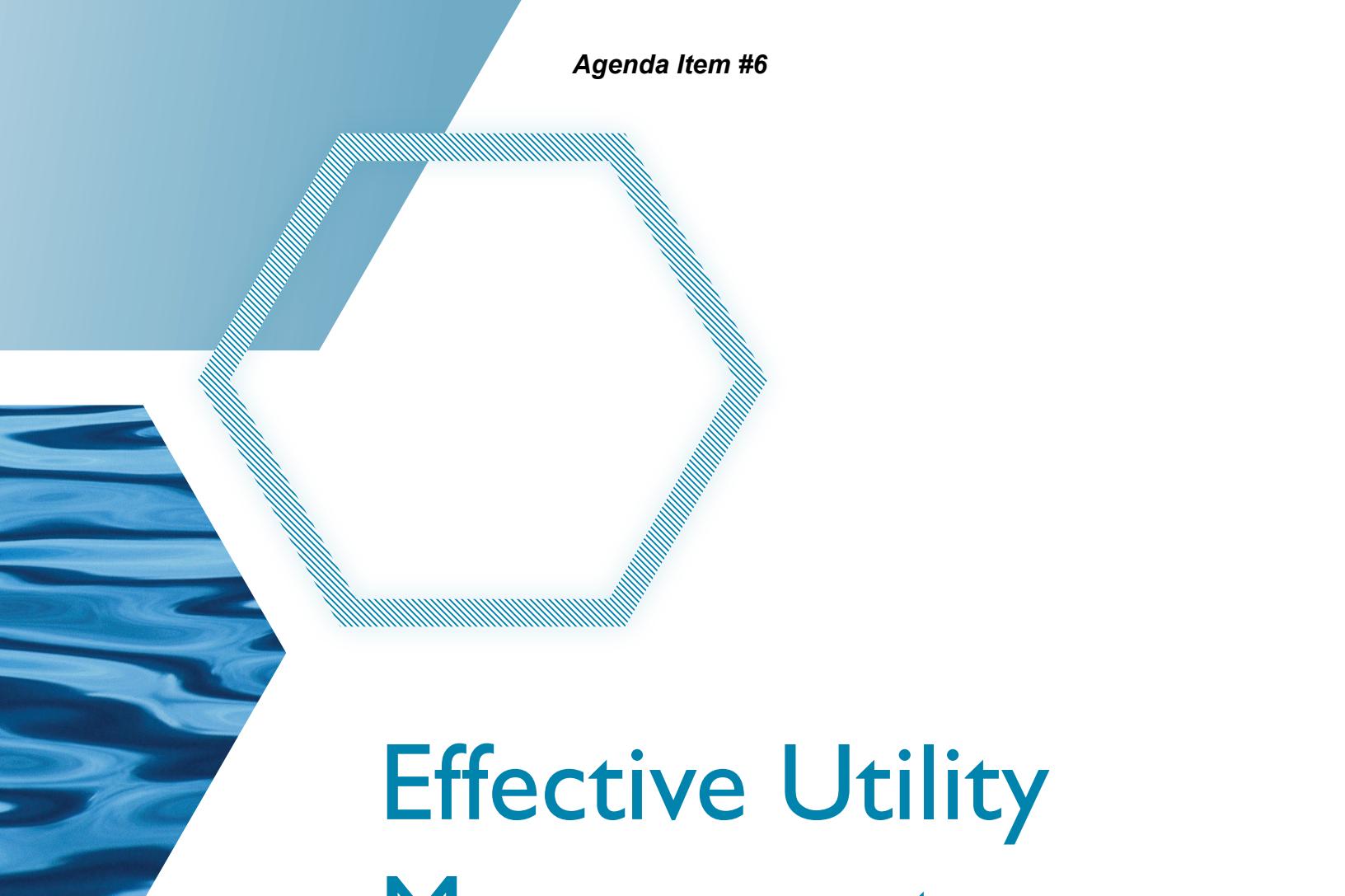


Proposed Updates to Current WRMS Policies



- Water Conservation Plan will include:
 - Policy D, Recommendations 2 – 5
 - Policy I, Recommendation 4
 - Policy K, Recommendations 1 – 2
 - Policy L, Recommendation 5
 - Policy M, Recommendations 4 – 5
- Water Quality Protection Policy and Action Plan will include:
 - Policy H, Recommendations 2 – 3
- Rate Ordinance will include:
 - Policy I, Recommendations 1, 3, 5, and 6
- Development Policy will include:
 - Policy L, Recommendations 1, 3, and 8





Effective Utility Management

A Primer for Water and Wastewater Utilities

June 2008



American Water Works
Association



NAWC
NATIONAL ASSOCIATION
OF WATER COMPANIES



Water Environment
Federation®

I. Effective Utility Management

Water and wastewater utilities across the country face common challenges. These include rising costs, aging infrastructure, increasingly stringent regulatory requirements, population changes, and a rapidly changing workforce. While many utility managers find themselves turning from one urgent priority to the next, others have systematically applied effective utility management approaches that have helped them improve their products and services, increase community support, and ensure a strong and viable utility long into the future.

Effective utility management can help water and wastewater utilities enhance the stewardship of their infrastructure, improve performance in many critical areas, and respond to current and future challenges. Addressing these challenges also requires ongoing collaboration between government, industry, elected officials, and other stakeholders.

In May, 2007, six major water and wastewater associations and the U.S. Environmental Protection Agency (EPA) signed an historic agreement pledging to support effective utility management collectively and individually throughout the water sector and to develop a joint strategy to identify, encourage, and recognize excellence in water and wastewater utility management. This Effective Utility Management Primer (Primer) is the result of the agreement among the following organizations:

- Association of Metropolitan Water Agencies (AMWA)
- American Public Works Association (APWA)
- American Water Works Association (AWWA)
- National Association of Clean Water Agencies (NACWA)
- National Association of Water Companies (NAWC)
- United States Environmental Protection Agency (EPA)
- Water Environment Federation (WEF)

This Primer is designed to help water and wastewater utility managers make practical, systematic changes to achieve excellence in utility performance. It was produced by water and wastewater utility leaders who are committed to helping utility managers improve water and wastewater management. The Primer distills the expertise and experience of these utility leaders into a framework intended to help a utility manager identify and address their most pressing needs through a customized, incremental approach that is relevant to the day-to-day challenges utilities face.



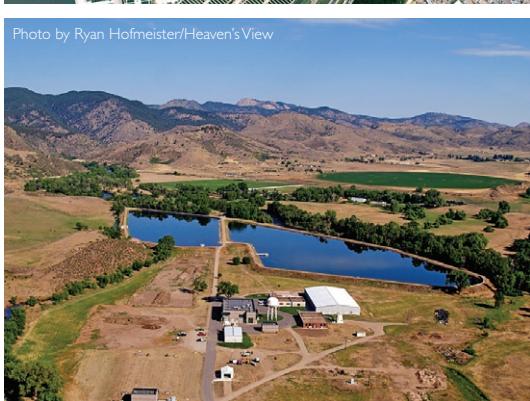
Effective utility management is essential to sustaining our nation's water and wastewater infrastructure.

Rather than focusing on just financial or operational goals, this Primer considers all significant aspects of water and wastewater utility management. The Primer has three primary components:

- *The Ten Attributes of Effectively Managed Water Sector Utilities (Attributes).* These Attributes provide a clear set of reference points and are intended to help utilities maintain a balanced focus on all important operational areas rather than quickly moving from one problem to the next (Section II).
- *Keys to Management Success.* These proven approaches help utilities maximize their resources and improve performance (Section III).
- *Where to Begin—A Self-Assessment Tool.* A utility-tailored self assessment tool helps utility managers identify where to begin improvement efforts. By assessing how a utility performs relative to the Attributes, utility managers can gain a more balanced and comprehensive picture of their organization (Section IV).



Photo by Ryan Hofmeister/Heaven's View



Effective utility management is applicable to all utilities, regardless of size or circumstance

In addition, the Primer provides a set of sample measures to help utility managers gauge performance and assess improvement progress (Section V). It also provides links to a web-based “resource toolbox” which offers additional information and guidance on effective utility management (Section VI).

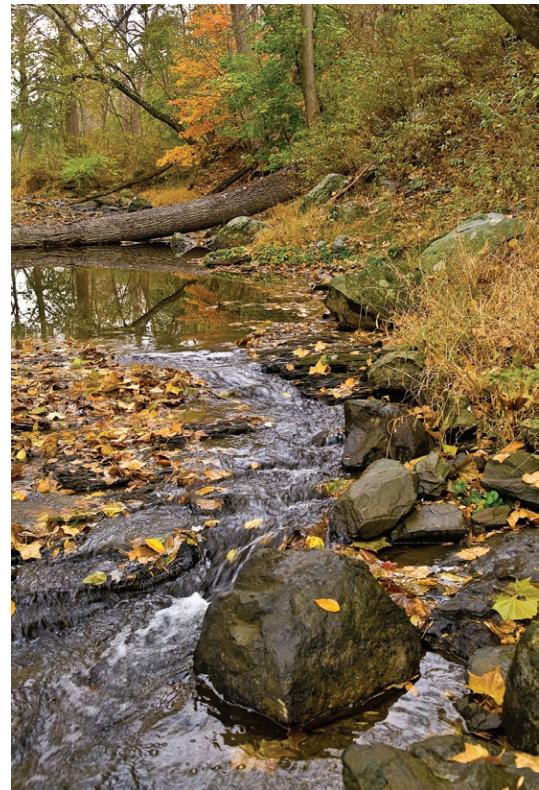
Utility managers and stakeholders can use this Primer in a variety of ways. At one end of the spectrum, the Primer can educate utility staff and stakeholders regarding the range of responsibilities faced by water and wastewater managers. At the other end of the spectrum, it can provide a framework for a utility’s long-term strategic planning efforts. Regardless of where a utility is in the spectrum, this Primer can help integrate the Attributes of effective utility management with existing strategic, business, and/or asset management plans.

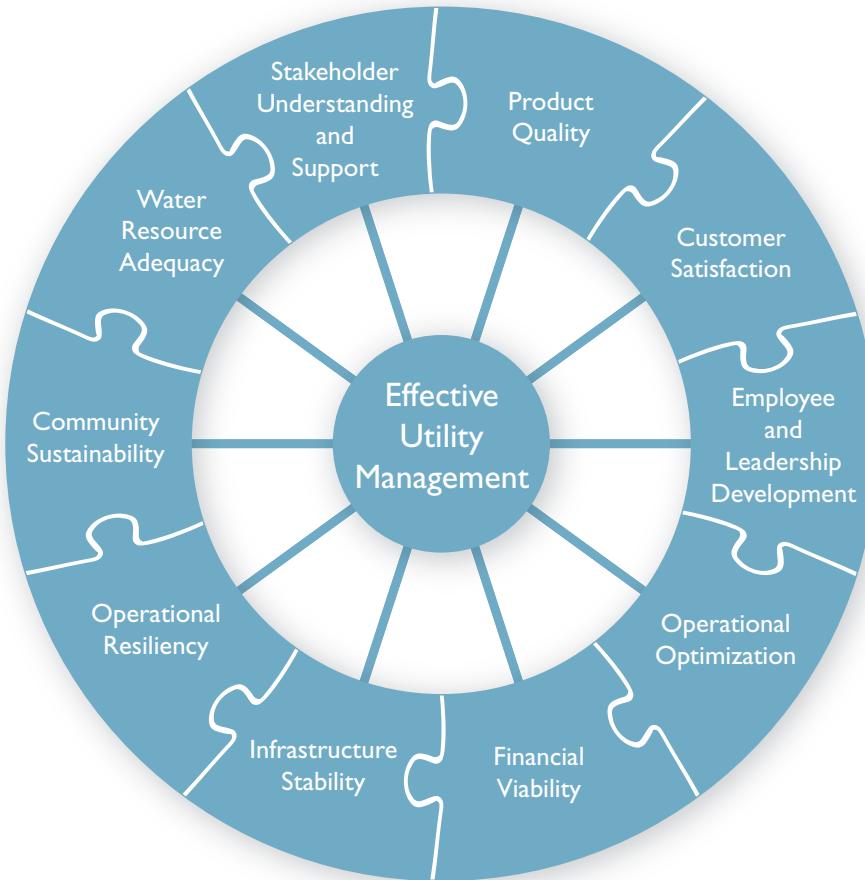
All water and wastewater utilities can benefit from applying this Primer. Each utility has unique management opportunities and challenges, and this Primer provides guidelines and tools that are relevant to any utility, regardless of size, budget, or circumstance. This Primer’s aim is to support all water and wastewater utilities in their common mission of being successful 21st century service providers.

II. Ten Attributes of Effectively Managed Water Sector Utilities

The Ten Attributes of Effectively Managed Water Sector Utilities provide useful and concise reference points for utility managers seeking to improve organization-wide performance. The Attributes describe desired outcomes that are applicable to all water and wastewater utilities. They comprise a comprehensive framework related to operations, infrastructure, customer satisfaction, community welfare, natural resource stewardship, and financial performance.

Water and wastewater utilities can use the Attributes to select priorities for improvement, based on each organization's strategic objectives and the needs of the community it serves. The Attributes are not presented in a particular order, but rather can be viewed as a set of opportunities for improving utility management and operations. Section IV (Where to Begin), provides a basic self-assessment tool to help utilities easily identify needs and opportunities. However, utilities will be able to deliver increasingly efficient, high-quality service by addressing more, and eventually all, of the Attributes. Section V provides several sample performance measures for each of the Attributes.





Ten Attributes of Effectively Managed Water Sector Utilities

Ten Attributes of Effectively Managed Water Sector Utilities

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.

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.

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 uses water and energy resources; promotes economic vitality; and engenders 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.

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.

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.

III. Keys to Management Success

The Keys to Management Success are comprised of frequently used management approaches and systems that experience indicates help water and wastewater utilities manage more effectively. They create a supportive climate for a utility as it works towards the outcomes outlined in the Attributes, and they can help integrate the utility's improvement efforts across the Attributes. The Keys to Management Success are listed below.



Effective leadership produces organizational alignment and clear direction

I. Leadership

Leadership is critical to effective utility management, particularly in the context of driving and inspiring change within an organization. “Leadership” refers both to individuals who can be effective champions for improvement, and to teams that provide resilient, day-to-day management continuity and direction. Effective leadership ensures that the utility’s direction is understood, embraced, and followed on an ongoing basis throughout the management cycle. Leadership has an important responsibility to communicate with the utility’s stakeholders and customers. It further reflects a commitment to organizational excellence, leading by example to establish and reinforce an organizational culture that embraces positive change and strives for continual improvement. Organizational improvement efforts require commitment from the utility’s leadership.

2. Strategic Business Planning

Strategic business planning is an important tool for achieving balance and cohesion across the Attributes. A strategic plan provides a framework for decision making by:

- Assessing current conditions, strengths and weaknesses;
- Assessing underlying causes and effects; and
- Establishing vision, objectives, and strategies.



It establishes specific implementation steps that will move a utility from its current level of performance to achieving its vision.

Preparation of a strategic business plan involves taking a long-term view of utility goals and operations and establishing a clear vision and mission. When developed, the strategic business plan will drive and guide utility objectives, measurement efforts, investments, and operations.

A strategic plan can help explain the utility's conditions, goals, and plans to staff and stakeholders, stimulate change, and increase engagement in improvement efforts.

After developing a strategic business plan, it is important that the utility integrates tracking of progress into its management framework.

3. Organizational Approaches

There are a variety of organizational approaches that contribute to overall effective utility management and that are critical to the success of management improvement efforts. These include:

- Actively engaging employees in improvement efforts (helping to identify improvement opportunities, participating in cross-functional improvement teams, etc.);
- Deploying an explicit change management process that anticipates and plans for change and encourages staff at all levels to embrace change; and
- Utilizing implementation strategies that seek, identify, and celebrate early, step-by-step victories.

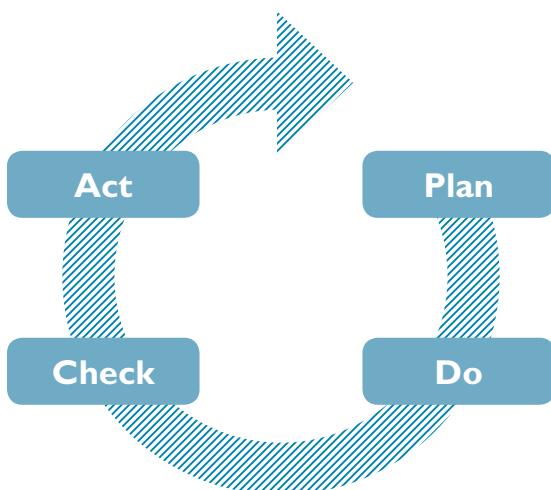
4. Measurement

Measurement is critical to management improvement efforts associated with the Attributes and is the backbone of successful continual improvement management and strategic business planning. A measurement system serves many vital purposes, including focusing attention on key issues, clarifying expectations, facilitating decision making, and, most importantly, learning and improving. As one utility manager put it, "You can't improve what you don't measure." Successful measurement efforts often are:

"You can't improve what you don't measure."

- Viewed as a continuum starting with basic internal tracking, and, as needed and appropriate, moving to more sophisticated baselining and trend analysis, development of key performance indicators, and inclusion of externally oriented measures which address community sustainability interests;
- Driven by and focused on answering questions critical to effective internal management and external stakeholder needs (e.g., information needed to allow governing bodies to comfortably support large capital investments); and
- Supported by a well-defined decision framework assuring results are evaluated, communicated, and responded to in a timely manner.

Deciding where to start and what to measure can be challenging. Measures can also be taken out of context. Therefore, while an essential tool in the self-improvement process, measurement is not the only tool and should be approached, structured, and used thoughtfully. Section V includes sample performance measures that can be used in conjunction with utility-specific baselines and targets.



5. Continual Improvement Management Framework

A continual improvement management framework is usually implemented through a complete, start-to-finish management system, frequently referred to as a “Plan-Do-Check-Act” framework. This framework plays a central role in effective utility management and is critical to making progress on the Attributes. Continual improvement management includes:

- Conducting an honest and comprehensive self-assessment to identify management strengths, areas for improvement, priority needs, etc.;
- Conducting frequent sessions among interested parties to identify improvement opportunities;
- Following up on improvement projects underway;
- Establishing and implementing performance measures and specific internal targets associated with those measures;
- Defining and implementing related operational requirements, practices, and procedures;
- Establishing supporting roles and responsibilities;
- Implementing measurement activities such as regular evaluation through operational and procedural audits; and
- Responding to evaluations through the use of an explicit change management process.



This “Plan-Do-Check-Act” continual improvement framework is quite effective when applied internally. It can also be enhanced by using gap analysis, establishment of standard operating procedures, internal trend analysis and external benchmarking, best practice review, and other continual improvement tools. The framework can help utilities understand improvement opportunities and establish explicit service levels, guide investment and operational decisions, form the basis for ongoing measurement, and provide the ability to communicate clearly with customers and key stakeholders.

The Resource Toolbox described in Section VI, Utility Management Resources, provides links to resources that support utilization of the Keys to Management Success.