

Developing and Implementing a Performance Measurement System: Vol. II

Well-designed and properly implemented performance measurement systems can enable utilities to achieve new levels of performance in terms of efficiency, quality, and effectiveness. The drivers for increased performance can be external—such as competition, regulatory demands, or customer expectations—or they can be internal, based upon recognized opportunities for improvement. Whether internally or externally driven, performance improvement requires measurement. The components of a performance measurement system are centered on the business process and associated work practices that deliver the product or service to its customers.

The primary purpose of this research was to provide methods and tools that enable a water or wastewater utility to develop and implement a performance measurement system based on a demonstrated, proven approach. To achieve the purpose, the project was conducted in three phases:

- Phase I: Research was conducted on existing and applicable performance mea-

surement frameworks to identify steps for developing and implementing performance measurements that uniquely fit water/wastewater utilities.

- Phase II: Demonstration pilot projects for developing and implementing performance measurement were carried out over a 12-18 month period at four water and wastewater utilities.

- Phase III: Research results from the pilots and lessons learned were applied to adjust the piloted process.

WERF published the results of Phase I research in a separate report (Volume I, stock no. D00304), and the results of Phase II and III research are included in Volume II, summarized here.

Implementing performance measurement systems will allow utilities to continuously (as well as initially) improve their business performance. This improvement will require utilities to develop and apply processes, procedures, communication, education, and supporting tools. All of the steps from defining a utility's strategic plan to day-to-day use of performance measures are part of the system.

BENEFITS

- Provides methods and tools for water/wastewater utilities to adapt an approach for performance measurement that fits their organization and current business processes and initiatives.
- Creates a balanced system of measures both at the top and on the ground that relate and align for utility-wide performance and improvement.
- Gives guidance and lessons learned on organizational and cultural aspects of performance measurement.
- Describes technology supporting scorecard development and performance measurement tracking, reporting, and automating.

RELATED PRODUCTS

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Table 1. Sample Balanced Scorecard from Customer Perspective.

Goals	Objectives	Measures	Targets
Customers See Us As Stewards Of The Environment	Compliance with NPDES Permit	% Compliance with NPDES Limits	100% Within NPDES Limits
	Eliminate Substantive SSOs by 2005	% of SSOs Reduced Via FOG Program	80% Reduction in Backups
		% of CMOI Program Components Implemented	Fully Implemented In 2005
Provide Customers Consistent And Timely Service	Readily Accessible Customer Information	Response to Customer Query	Within Four Hours of Initial Call
		Information Available Via Website	80% of Queries Answered Via Website

Measuring Performance with the Balanced Scorecard

Effective performance measurement enables an organization to establish a baseline for its current practices, set targets for change, and drive initial and continuous incremental improvements. As a basis for continuous improvement, performance measurement supports and is a key part of many business management systems. The key is to know where your performance is today and set targets for improvement to close the gap. The gap between the two becomes the recognized improvement opportunity.

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With a system of appropriate measures defined and these measures linked to organizational accountabilities, adjustments can be made to business processes or practices. An ongoing cycle of tracking measures and making process adjustments is the heart of implementing a performance measurement system.

Performance measurement has been advanced through concepts such as the balanced scorecard (BSC) first described by Robert Kaplan and D.P. Norton in *The Balanced Scorecard*. The BSC is a framework of performance measures from four perspectives (financial, customer, internal business process, and learning and growth) that are driven by an organization's overall vision and strategy. The BSC is the most widely used performance

measurement framework in both business and industry.

Applying the BSC at Water and Wastewater Utilities

Utilities can employ these same performance measurement concepts and learn best practices from other utilities as well as from industries' experiences. For this project, the BSC was modified to be the basis for a performance measurement framework for water and wastewater utilities. The BSC performance measures from four perspectives were developed to reflect a balanced view of a public service organization. (Table 1 provides a sample of a BSC for the customer perspective of wastewater services.)

Four utilities piloted a seven-step process to develop performance measurement for their own unique circumstances. Following a demonstration period of between 12 and 18 months at each of the pilot utilities, results of implementing performance measurements and lessons learned were used to adjust the piloted process. The utilities varied in terms of

utility type, size, and previous experience with performance measures in order to produce a flexible process for performance measurement implementation that can be adapted for widespread application. The process can be adapted based on a given utility's current business strategy and need for measures to drive improvement initiatives or continuous process improvements.

Future Directions

The pilot tests of the BSC approach led to some recommendations for successful performance measurement at water and wastewater utilities. The project report includes several suggestions for future research in areas related to performance measurement, including supporting and integrative technologies, ties to incentive systems, and relationships to industry-standard performance indicators. Additional technology transfer and education, including simple tools for utilities to get started with performance measurement, would also add value for the water and wastewater industry.

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