# Performance Plan

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Albuquerque Bernalillo County Water Utility Authority



# **Table of Contents**

Section	<u>Page</u>
Executive Summary	i
Introduction	iii
Five Year Goals	iii
Performance Measure Types	IV
Performance Plan Logic Model	V
Benchmarking and Industry Peer Group	V
Presentation of Data	V
Relationship of Performance Plan to Goals, Objectives and Budget	vi
Performance Accountability	
Water Supply and Operations Goal	
Drinking Water Compliance Rate	1
Distribution System Water Loss	3
Water Distribution System Integrity	
Operations and Maintenance Cost Ratios	7
Planned Maintenance Ratio	11
Water Conservation Savings	15
Wastewater Collection and Operations Goal	
Sewer Overflow Rate	19
Collection System Integrity	21
Wastewater Treatment Effectiveness Rate	23
Operations and Maintenance Cost Ratios	25
Planned Maintenance Ratio	
Customer Services Goal	
Customer Service Complaints/Technical Quality Complaints	33
Customer Service Cost per Account	
Billing Accuracy	
Disruptions of Water Service	41
Residential Cost of Water/Sewer Service	49
Business Planning and Management Goal	
Debt Ratio	55
Return on Assets	57
System Renewal/Replacement Rate	59
Organization Development Goal	
Employee Health and Safety Severity Rate	65
Training Hours per Employee	67
Training Hours per Employee  Customer Accounts per Employee (Water and Wastewater)  MGD Water Delivered and MGD Wastewater Processed per Employee	69
MGD Water Delivered and MGD Wastewater Processed per Employee	71
Organizational Best Practices Index	75

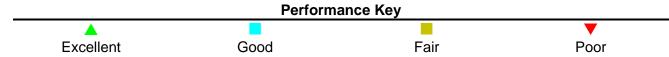
### **Executive Summary**

The Albuquerque Bernalillo County Water Utility Authority's (Authority) Budget Ordinance requires that a Performance Plan be connected to the Five-Year Goals and contain performance measures that help guide the operating and capital budgets in allocating the Authority's financial resources. The FY10 Performance Plan assesses the performance of the Authority using a set of identified and tested, high-level performance measures. These measures are designed to help the Authority improve its operational efficiency and effectiveness by identifying areas of improvement. The measures also provide a mechanism to conduct comparative analyses in order to implement quality improvement processes and enhance decision-making.

The Performance Plan contains three years of actual prior year data which establishes a baseline as well as projected performance targets that drive financial and budgetary policies. In addition to assessing its performance year to year, the Authority assesses its performance in relation to the other utilities.

The FY10 Performance Plan contains 23 performance measures organized by the Authority's Five-Year Goal areas: Water Supply and Operations, Wastewater Collection and Operations, Customer Relations, Business Planning and Management, and Organization Development. The following table summarizes the Authority's performance compared to other utilities and tracks the Authority's progress over the last three fiscal years.

Goal	Performance Measure	FY06	FY07	FY08
	Drinking Water Compliance Rate	<b>A</b>	<b>A</b>	<b>A</b>
Water Supply	Distribution System Water Loss			
	Water Distribution System Integrity			
& Operations	Operations and Maintenance Cost Ratios			
	Planned Maintenance Ratio	_		
	Water Conservation Savings	<b>A</b>	<u> </u>	<b>A</b>
	Sewer Overflow Rate			
Wastewater	Collection System Integrity			
Collection &	Wastewater Treatment Effectiveness Rate			
Operations	Operations and Maintenance Cost Ratios		<b>A</b>	<b>A</b>
	Planned Maintenance Ratio			
	Customer Service & Technical Quality Complaints			
Customer	Customer Service Cost per Account			
Services	Billing Accuracy			
OCI VICES	Disruptions of Water Service			
	Residential Cost of Water/Sewer Service			
Business	Debt Ratio			<b>V</b>
Planning &	Return on Assets			
Management	System Renewal/Replacement Rate		<b>V</b>	_
	Employee Health and Safety Severity Rate			
Organization	Training Hours per Employee			
Development	Customer Accounts per Employee, Water Delivered &	<u> </u>	<u> </u>	_
	Wastewater Processed per Employee			
	Organizational Best Practices Index			



#### Introduction

The Albuquerque Bernalillo County Water Utility Authority's (Authority) Budget Ordinance requires that a Performance Plan be connected to the Five-Year Goals and contain performance measures that help guide the operating and capital budgets in prioritizing and allocating the Authority's financial resources. The Authority uses these measures to help improve its operational efficiency and effectiveness by identifying areas of improvement. The measures also provide a mechanism to conduct comparative analyses in order to implement quality improvement processes and enhance decision-making.

The Authority utilizes the American Water Works Association's (AWWA) QualServe Benchmarking Performance Indicators Survey (Survey) in developing its Performance Plan. The Survey provides utilities an opportunity to collect and track data from already identified and tested performance measures, based on the same collection process and definitions. The most recent survey data was complied in 2007 by AWWA from over 200 different utilities. The survey is conducted every two years. The Performance Plan uses the survey data as a basis for its performance measures to track the Authority's performance with that of other utilities.

#### **Five-Years Goals**

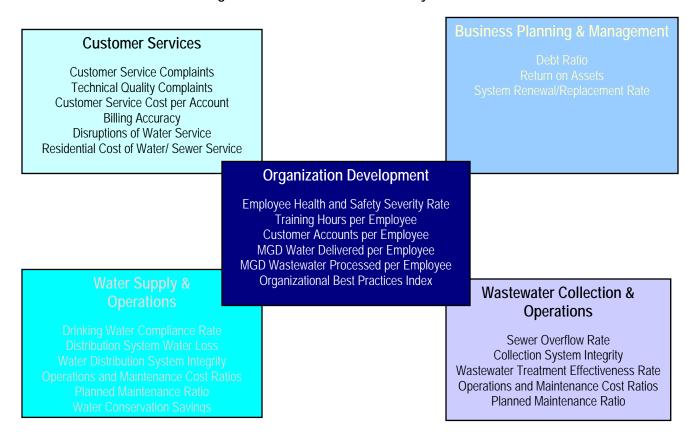
The Authority's Performance Plan is organized by the Authority's Five-Year Goal areas which are modeled after AWWA's QualServe business model. The QualServe model is modeled from fifteen successful quality achievement programs, including the Malcolm Baldridge National Quality Award Program, the Deming Award, and the International Standards Organization series of quality standards. The model characterizes the work of the typical water and wastewater utility around five business systems. Figure 1 shows the Authority's Five-Year Goals which parallels the QualServe model. The Authority also has developed guiding goal statements for each goal area which explains the long-term desired result for that goal.

Figure 1: Authority's Five-Year Goals



The Performance Plan contains 23 performance measures. The performance measures are organized by the Authority's Five-Year Goal areas shown in Figure 2. The performance measures are linked to the Goal areas in that the tracking of the metric is used to achieve the long-term desired result for that goal.

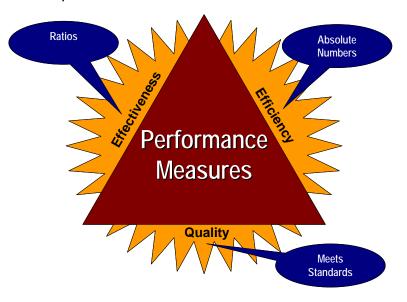
Figure 2: Performance Measures by Goal Area



#### **Performance Measure Types**

The Plan's performance measures fall into three main categories: Quality, Effectiveness and Efficiency. Quality measures are presented as standards. Effectiveness measures are presented as ratios. Efficiency measures are presented as absolute numbers.

- Standards, such as meeting drinking water quality standards
- (2) Ratios, such as operation and maintenance costs per million gallons of water or wastewater processed
- (3) Absolute numbers, such as the monthly bill for a residential water or wastewater customer



#### **Performance Plan Logic Model**

The Performance Plan presents each performance measure through an *evaluation logic model*. The logic model is a systematic and visual method that shows how performance measures quantify what is being done (inputs), how well it is being done (outputs), and why it is being done (outcomes). *Inputs* are the specific data needed to construct and calculate each performance measure. These resources may include dollars, hours, people or material resources used to produce an output. *Outputs* are the product of the calculation of the inputs and describe the level of effectiveness of each performance measure. The outputs are the metrics that are benchmarked with other utilities. *Outcomes* are the desired result of the performance measure that the Authority would like to achieve in connection with its long-range goals and with its shorter-term objectives.

Simply stated, the performance measures identify gaps in service delivery or performance. They are used to help monitor the Authority's performance and to develop performance targets. The Authority sets performance targets that are aligned with the desired outcomes to determine how effective or efficient the organization is in achieving the desired outcome. The Authority uses the desired outcomes to create an ongoing discussion with its stakeholders and show why decisions are made in prioritizing and allocating financial resources.

The Five-Year Goals and One-Year Objectives are incorporated into the logic model. Figure 3 shows the alignment between the goals, objectives and performance measures in the logic model. With the performance measures being used to identify gaps, the One-Year Objectives which are policy directives from the Authority Board are used to close performance or service delivery gaps and improve performance levels. Overall, the logic model is used to show where the organization wants to be and how it can get there.

One-Year Objectifies

Samseall astronton of the Measures of th

Figure 3: Logic Model Alignment of Goals, Objectives and Performance Measures

#### **Benchmarking and Industry Peer Group**

The Performance Plan contains three years of actual prior year data (FY06 through FY08) which establishes a baseline. The Plan also includes estimated current fiscal year performance measures (FY09) as well as projected performance in the proposed budget year (FY10). The Plan allows the Authority to benchmark its performance from year to year and to determine how its current and projected performance compare to baseline past performance.

In addition to assessing its performance year to year, the Authority also compares its performance with that of other utilities in its *industry peer group* (utilities in the western United States, utilities that serve populations of more than 500,000, and utilities with combined water/wastewater operations). As stated in the Introduction section, the Authority obtains its comparative data from the AWWA QualServe Benchmarking Performance Indicators Survey. By benchmarking with other utilities, the Authority is able to assess its performance relative to other high-performing utilities. For each performance measure, the industry peer group is presented throughout this Plan using the following categories:

#### 1. Combined Water/Sewer

Represents those utilities designated as providing both water and wastewater services

### 2. Populations greater than 500,000

- ➤ Utilities that serve populations greater 500,000
- 3. Western Utilities (region designated by the US Census Bureau)
  - > States include: AZ, CO, ID, NM, MT, UT, NV, WY, AK, CA, HI, OR, WA

#### Strategic Planning, Budgeting and Improvement Process

The Performance Plan is a component of the *Strategic Planning, Budgeting and Improvement Process* that was discussed in Volume 1-Financial Plan. This Process drives the development of the annual operating and capital budgets by providing data used to set performance goals, as well as allocate and prioritize resources. Performance measures provide an approach for strategically allocating and prioritizing resources to balance the level and cost of services with customer expectations. For example, higher treatment costs may be the desired outcome to improve customer satisfaction.

As a part of the Strategic Planning, Budgeting and Improvement Process, the Five-Year Goals, One-Year Objectives, and performance measures are integrated through the use of the logic model in order to achieve service delivery and performance improvement. A good example of the integration between performance measures and objectives is the Employee Health and Safety Severity Rate (see pages 65-66) which measures the rate of employee days lost from work due to illness or injury. Since starting the benchmarking process, the Authority noticed that its lost workdays were on average fifteen times higher than other utilities. As a result, the Authority has used the Objectives to implement several programs including safety incentive bonuses to reduce the number of employee lost days. Overall, the integration of the performance measures and objectives are used to achieve the long-term desired results of the Authority's Five-Year Goals.

### Performance Accountability

Each Authority division manager is responsible for their respective goal areas and objectives and for tracking their performance. On a monthly basis, the Executive Director meets with the division managers and their staff to review progress reports on the performance measures and objectives. The Authority Board is provided quarterly status reports on the One-Year Objectives and annually on the Performance Plan. Also, results of a customer opinion survey

are presented biannually to the Board. The survey allows the Authority to track customer satisfaction on the programs, policies, and operational performance of the organization. Several survey questions are tied to the performance measures and levels of service. In this way, the survey provides qualitative data that relates to quantitative data from the benchmarking to ensure that the Authority is balancing performance improvement with customer expectations.

The Authority also uses performance measures and performance targets in conjunction with the review of the annual budget. The Executive Director and the managers integrate performance reporting into the budget process in order to focus the budget discussion on the allocation of resources and to address performance gaps. The manager's budget requests are tied either to performance measure targets or objectives in terms of providing a justification for their purpose. By integrating the objectives and performance measures into the budget process, the Authority has moved from just measuring performance to managing performance and how and what it what it wants to achieve. As a result, the Authority has become more transparent and accountable to its customers and the governing board.

#### **Presentation of Data**

The Performance Plan's comparative data is presented in quartile rankings. The top quartile reflects the 75th percentile, and the bottom quartile reflects the 25th percentile. The median is the 50th percentile value. Figure 4 illustrates the four quartiles. Data in the 2nd and 3rd quartiles is described as the "median range." The reason is that the median is the boundary between these two quartiles. Data in the median range includes 50% of all the values submitted for each performance measure. This range is considered nominal or representative of the majority of the data.

25th Percentile 50th Percentile (Median) 75th Percentile 

▼ ▼ ▼ ▼ ■ 4th Quartile 

1st Quartile 3rd Quartile 4th Quartile

Figure 4: Percentile/Quartile Illustration

#### Using the Performance Comparison Chart

Figure 4 provides an example of the median range of values for the industry peer group. The green, blue and orange horizontal bars illustrate the median range (the 2nd and 3rd quartiles) of the industry peer group. The ends of the bars on the left are the boundaries for the 25th percentile, and the ends of the bars on the right are the boundaries for the 75th percentile. The purple circles on each bar indicate the median value in the range. The vertical blue line represents the Authority's baseline performance and the vertical red line represents the Authority's latest actual performance.

In the example provided in Figure 5, the chart shows that the Authority's current performance is within the "median range" of all three categories of the industry peer group. Assuming that a low value for this measure is desirable, the Authority's performance is below the median value when compared to those utilities greater than 500,000 population and those utilities located in the Western United States. Any performance value greater than the 75th percentile would indicate poor performance. Whereas, any performance value less than 25th percentile would indicate excellent performance. For each performance comparison chart, there will be an indication of whether higher or lower values are desirable.

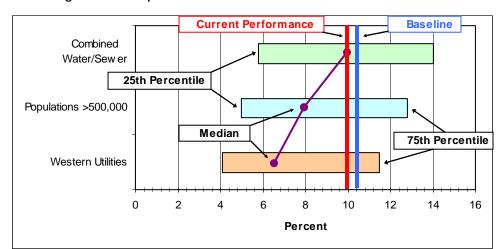


Figure 5: Example Performance Measure – Percentiles Indicated

### **Layout of Performance Plan**

The performance measures are categorized by the Authority's five goal areas. Each goal area section provides an overview of the goal through the guiding goal statement and goal performance scorecard. Each performance measure is presented through a logic model of inputs, outputs and outcomes as well as comparative statistics and charts to illustrate how the Authority is performing year to year and how it is performing compared to the industry peer group. A results narrative includes a discussion and analysis of how the performance measure meets anticipated performance targets and long-range goals. If the targets are not being met, an explanation is provided for the reason and what is expected in the future. The Performance Plan also indicates if there are one-year objectives related to a performance measure to show how policy directives are used to improve service delivery and/or minimize performance gaps. In addition, the Performance Plan provides customer opinion survey statistics to show how customer expectations relate to the performance measure.

### **Goal 1: Water Supply and Operations**

### **Guiding Goal Statement**

Provide a reliable, safe, affordable, and sustainable water supply by transitioning to renewable supplies and minimizing long term environmental impacts on the community and natural resources while ensuring the ability of the community to grow in a responsible manner.

### **Goal Performance Scorecard**

Performance Measure	Status	Trend
Drinking Water Compliance Rate	<b>A</b>	
Distribution System Water Loss		
Water Distribution System Integrity		
O&M Cost Ratios: O&M Cost per account		
O&M Cost Ratios: O&M Cost per MG processed		
O&M Cost Ratios: Direct cost of treatment per MG	<b>A</b>	
Planned Maintenance Ratio: hours		
Planned Maintenance Ratio: cost		
Water Conservation Savings	<b>A</b>	<u> </u>
Overall Goal Status		



### 1-1 Drinking Water Compliance Rate

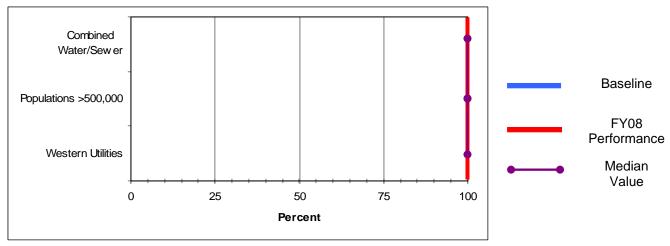
### Performance Results

Measure Type	Purpose	Inputs		Outputs					
	Quantify the percentage of time	Number of	Baseline Prior Year Actuals			Current/Est	Projected	Provide safe	
	each year that the Authority	days in full	Daseiine	FY06	FY07	FY08	FY09	FY10	and reliable
Quality	meets all of the health related drinking water standards in the US National Primary Drinking Water Regulations	compliance	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	drinking water to our customers 100% of the time

### **Industry Benchmark**

	Combined Water/Wastewater Utilities			Utilities with populations greater than 500,000			Utilities located in the Western United State		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Bottom Quartile		
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

### Performance Comparison Chart



Higher values are desirable

### **Results Narrative**

The drinking water compliance rate indicates the percent of time that a drinking water utility is in full compliance with all of the water quality contaminants and treatment techniques mandated for public water systems in the United States. A utility measures its compliance relative only to those primary maximum contaminant levels and treatment techniques that apply to its operations. The drinking water compliance rate uses simple tests of "in compliance" and "not in compliance." As a performance measure for comparative analysis, the drinking water compliance rate allows a utility to gauge its compliance with health-related drinking water parameters relative to other water utilities reporting data into the comparative analysis system.

#### **Measurement Status**

The Authority has been in 100% compliance for the past three fiscal years and is on-target to meet 100% compliance for the next two fiscal years.

In December 2008, the Authority began distribution of treated surface water mixed with ground water resources as part of the San Juan-Chama Drinking Water Project (SJCDWP). In 2009, the Authority will operate the new plant at 25 percent capacity with a gradual increase to full capacity to minimize water quality changes. The Authority directed an independent review of key water quality and treatment issues for the SJCDWP treatment plant. The study was performed by Dr. Kerry Howe, a professor of engineering at the University of New Mexico and a world-renowned expert in water treatment. The study concluded that the new plant will meet or exceed all Safe Drinking Water Act regulations.

A policy objective for FY09 was to update the Groundwater Protection Policy and Action Plan by integrating surface water quality protection into the current plan. As a result, the Authority will have a comprehensive surface water and ground water protection policy plan.

### 2008 Customer Opinion Survey

- 98% of customers are either very or somewhat satisfied with the reliability/availability of water
- 82% of customers are either very or somewhat satisfied with the quality of drinking water

### 1-2 Distribution System Water Loss

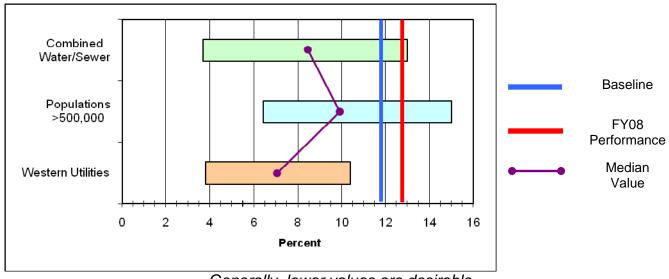
### Performance Results

Measure Type	Purpose	Inputs		Outputs					
	Quantify the percentage of	Volume of water	Baseline	Prior Year Actuals Current/Est				Projected	Improve
	produced water that fails to	distributed,		FY06	FY07	FY08	FY09	FY10	water use
Efficiency	reach customers and cannot	volume billed,							efficiency
	otherwise be accounted for	volume unbilled	11.9%	10.2%	12.6%	12.9%	12.0%	11.0%	and recover
	through authorized usage	but authorized			1				lost revenue

### **Industry Benchmark**

	Combined Water/Wastewater Utilities						s located	
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
3.7%	8.5%	13.0%	6.4%	9.9%	15.0%	3.8%	7.2%	10.4%

### **Performance Comparison Chart**



Generally, lower values are desirable

### **Results Narrative**

Distribution system water loss is the difference between the volume of water distributed for use by all customer classes and the volume of water actually consumed by authorized users. There are many factors contributing to distribution system water loss. The major ones are leakage, metering inaccuracies, and unauthorized consumption. Among these, only leakage is a true loss of water. Metering inaccuracies affect the utility's capability for measuring true loss, but such inaccuracies can lead to both overstatements and understatements of the true loss. Unauthorized consumptions diminish revenues and should be dealt with, but they are not real losses of water. Because water losses impact revenues, it is important that a utility have practices in place to understand the specific causes of losses in its system. The utility will then be able to make good decisions regarding operations, maintenance, and pipeline replacements. Tracking water losses helps utility managers understand the condition of distribution system infrastructure and the effects of its operation, maintenance, and replacement practices. This measure provides opportunity for a utility to compare the distribution system water loss against that in the distribution systems of other utilities.

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years. Even though the percentage of water loss has increased over the past three fiscal years, the overall actual water loss is less because the Authority has decreased its production from water conservation. The Authority has developed a leak detection program that focuses on finding water line leaks before they surface, fixing leaking hydrants, and improving meter inaccuracy. This program will help move the Authority's performance in line with utilities in the Western United States where water is a more scare resource. Two objectives for FY10 consist of reducing both revenue and non-revenue water loss. One objective is to complete all stopped meter requests within 3 months of notification and to test all large meters and identify high priority meters for repair or replacement. A second objective is to implement lift-and-shift deployments of leak detection equipment on water lines and continue the inspection of fire hydrants, thereby reducing unaccounted-for-water by 1%.

### 2008 Customer Opinion Survey

56% of customers are either very or somewhat satisfied with the condition of the water lines in the number of leaks that they
may observe surfacing

### FY10 Related Objectives

- Maintain completion of all stopped meter requests within 3 months of notification through the end of the 4th Quarter of FY10; test all large meters and identify high priority meters for repair or replacement by the end of the 4th Quarter of FY10.
- Continue implementation of water loss programs focusing on revenue water; initiate a systematic lift-and-shift deployments
  of leak detection equipment on water lines; continue the inspection of fire hydrants; reduce unaccounted-for-water by 1% by
  the end of the 4th Quarter FY10.

#### 1-3 Water Distribution System Integrity

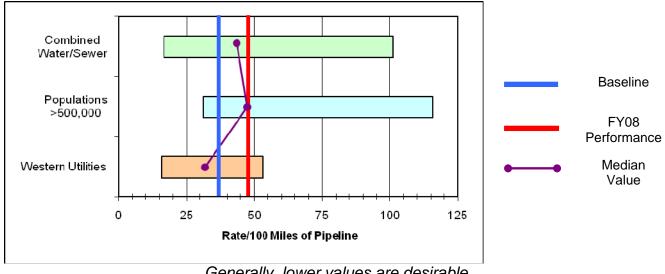
### Performance Results

Measure Type	Purpose	Inputs		Outputs					Outcome
	Quantify the	Number of leaks	Baseline	Prior	Year Ac	tuals	Current/Est	Projected	Improve the condition
	condition of the	per 100 miles of	Daseille	FY06	FY07	FY08	FY09	FY10	and reliability of the water
Effectiveness	water distribution system	distribution piping	36.6	31.5	31.2	47.0	45.0	40.0	distribution system and reduce emergency repairs and water supply interruptions

### **Industry Benchmark**

	Combined				nbined Utilities with populations Utilities located in the ewater Utilities greater than 500,000 Western United States					
Top Quartile	Median	Bottom Quartile	Top Quartile	Top Median Bottom Top Median				Bottom Quartile		
16.6	41.9	101.2	31.2	48.7	115.8	15.8	31.2	53.0		

### **Performance Comparison Chart**



### **Results Narrative**

For a water utility, distribution system integrity has importance for health, customer service, operations, and asset management reasons. Excessive leaks and breaks result in increased costs due to an increased number of emergency repairs. Utilities use operational and maintenance (O&M) procedures designed to reduce the value of this measure. The cost of these (O&M) programs must be balanced against the cost of emergency repairs and the consequences of water supply interruptions. Comparing the value of this measure with other utilities can provide information on the rate that many utilities may find acceptable.

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years. The Authority has adopted policy objectives for the past three fiscal years to increase spending on water line rehabilitation which will help reduce emergency repairs and water supply interruptions. In addition, the Authority adopted a FY08 and FY09 policy objective to invest \$1 million in steel water line rehabilitation in addition to planned water line rehabilitation spending. The purpose for this objective is to target steel lines because they leak the most in the system; about 44% of leaks result from steel water lines. The Authority included as an objective for FY10 to continue spending an additional \$1 million in steel water line rehabilitation.

### 2008 Customer Opinion Survey

 55% of customers are either very or somewhat satisfied with the effectiveness of the Authority to repair leaks and the response time for restoring service

### 1-4 Operations and Maintenance Cost Ratio

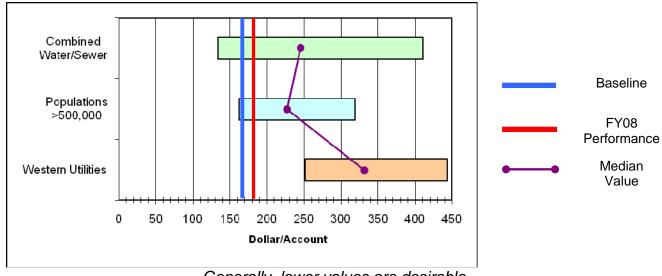
### Performance Results for O&M Cost per Account

Measure Type	Purpose	Inputs		Outputs					
	Quantify all utility costs related to	Total O&M	Total O&M Baseline		Year Ac	tuals	Current/Est	Projected	Maintain lower
	operations and maintenance	costs and	Daseille	FY06	FY07	FY08	FY09	FY10	O&M costs
Effectiveness	(O&M), with breakouts of those costs related to water treatment, as related to volumes processed and	total number of active customer	\$163	\$159	\$154	\$177	\$203	\$312	without reducing customer level
	the number of active customers	accounts							of service

### Industry Benchmark for O&M Cost per Account

	Combined	k	Utilities	with pop	ulations	Utilities located in the			
Water/W	/astewate	<sup>r</sup> Utilities	greater than 500,000 Western United Sta					States	
Тор	Median	Bottom	Тор	Modian	Bottom	Тор	Median	Bottom	
Quartile	Wedian	Quartile	Quartile Median		Quartile	Quartile	Weulan	Quartile	
\$134	\$247	\$411	\$163	\$233	\$319	\$252	\$339	\$443	

### Performance Comparison Chart for O&M Cost per Account



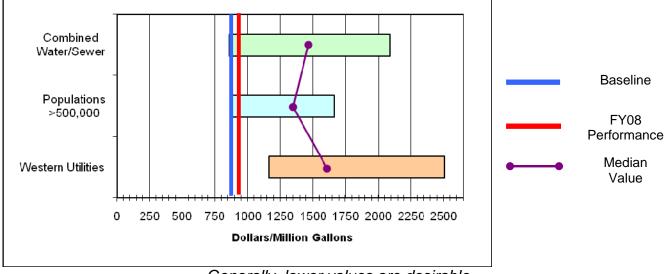
### Performance Results for O&M Cost per MG Distributed

Measure Type	Purpose	Inputs		Outputs					
	Quantify all utility costs related	Total O&M	Baseline	Prior Year Actuals			Current/Est	Projected	Maintain lower
	to operations and maintenance	costs and total	baseline	FY05	FY06	FY07	FY09	FY10	O&M costs
Effectiveness	(O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	volume of water distributed	\$870	\$783	\$901	\$926	\$1,143	\$1,244	without reducing customer level of service

### Industry Benchmark for O&M Cost per MG Distributed

	Combined astewater			with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
\$863	\$1,431	\$2,089	\$885	\$1,320	\$1,665	\$1,163	\$1,608	\$2,509

### Performance Comparison Chart for O&M Cost per MG Distributed



Generally, lower values are desirable

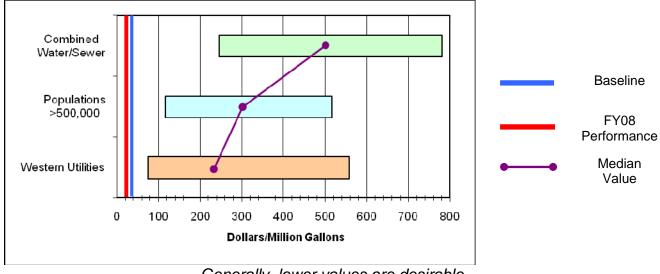
### Performance Results for O&M Cost of Treatment per MG

Measure Type	Purpose	Inputs		Outputs					
	Quantify all utility costs related to Total Direct		Pasalina	Prior	Year Ac	tuals	Current/Est	Projected	Maintain lower
	operations and maintenance	O&M costs	Baseline	FY06	FY07	FY08	FY09	FY10	O&M costs
Effectiveness	(O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	and total volume of water treated	\$28	\$18	\$27	\$38	\$42	\$450	without reducing customer level of service

### **Industry Benchmark**

	Combined astewater	d Utilities with populations Utilities located in the greater than 500,000 Western United States						
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
\$245	\$500	\$781	\$117	\$301	\$517	\$75	\$234	\$558

### Performance Comparison Chart for O&M Cost of Treatment per MG



Generally, lower values are desirable

### **Results Narrative**

These related measures tally the cost of O&M per account and per million gallons of water processed. Comparing the value of this measure with other utilities can provide information regarding the status of current accepted practices.

#### Measurement Status

The Authority's performance in this measure has been above the median range for the past three fiscal years. However, O&M costs are expected to increase when the new surface drinking water project is fully operational. The Authority is working on treatability studies to determine the optimum chemical doses for the surface water treatment plant which will help reduce operation costs.

A policy objective for FY10 is to optimize chemical use at the treatment plant by March 2010. Another objective is to develop a comprehensive energy master plan for the Authority. The plan will include demand and potential energy reduction measures and costs to implement alternative clean energy sources for use by the Authority.

### FY10 Related Objectives

- Increase operation of the San Juan-Chama Water Treatment Plant by providing approximately of 50% of overall water demand from the project; develop annual operations plan and submit to federal and state agencies; and optimize chemical use at the treatment plant by the end of the 3rd Quarter of FY10.
- Develop a comprehensive energy master plan for the Water Authority by the end of the 4th Quarter of FY10. The plan should include demand and potential energy reduction measures and costs to implement alternative clean energy sources for use by the Water Authority.

### 1-5 Planned Maintenance Ratio

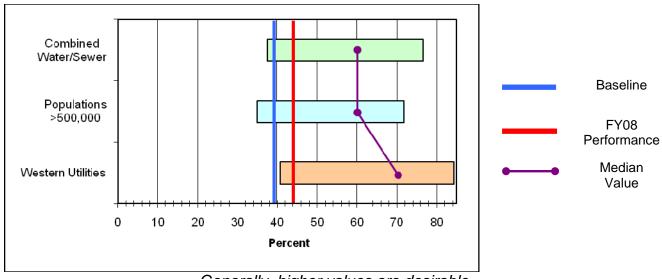
### Performance Results (Hours)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Comparison of how	Hours of planned	Baseline	Prior	Year Ac	tuals	Current/Est	Projected	Reduce
Effectiveness	effectively the Authority	maintenance	Daseille	FY06	FY07	FY08	FY09	FY10	emergency
	is in investing in planned maintenance	compared to hours of corrective maintenance	38.8%	33.0%	38.8%	44.6%	47.8%	51.0%	maintenance from system malfunctions

### Industry Benchmark (Hours)

	Combined Water/Wastewater Utilities			greater than 500,000 Western			s located	
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
76.7%	60.0%	37.5%	71.9%	60.0%	35.0%	84.2%	70.0%	40.7%

### Performance Comparison Chart (Hours)



Generally, higher values are desirable

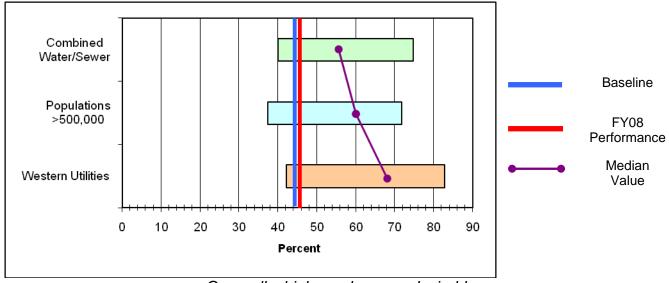
### Performance Results (Cost)

Measure Type	Purpose	Inputs		Outputs					
	Comparison of how	Cost of planned	Basslins	Prior	Year Ac	tuals	Current/Est	Projected	Reduce
	effectively the Authority	maintenance	Baseline	FY06	FY07	FY08	FY09	FY10	emergency
Effectiveness	is in investing in planned maintenance	compared to cost of corrective	44.1%	43.1%	43.5%	45.6%	47.4%	51.0%	maintenance from system
		maintenance			1010,0	1010,0		0.110,0	malfunctions

### Industry Benchmark (Cost)

	Combined astewater		Utilities with population greater than 500,000				s located	
vvalei/vv	asiewaiei	Otilities	great	greater than 500,000 Western United State				States
Тор	Median	Bottom	Тор	Median	Bottom	Тор	Median	Bottom
Quartile	Wedian	Quartile	Quartile	Wiediaii	Quartile	Quartile	Wiediaii	Quartile
74.7%	57.1%	40.0%	71.8%	60.0%	37.4%	82.8%	67.8%	42.1%

### Performance Comparison Chart (Cost)



Generally, higher values are desirable

#### **Results Narrative**

Planned maintenance includes preventive and predictive maintenance. Preventive maintenance is performed according to a predetermined schedule rather than in response to failure. Predictive maintenance is initiated when secondary monitoring signals from activities indicate that maintenance is due. All other maintenance is categorized as corrective (i.e., maintenance resulting from an asset that is no longer providing reliable service such as a breakdown, blockage, or leakage). Planned maintenance is preferable for assets for which the cost of repairs is high relative to the cost of corrective maintenance. The avoided cost includes both the cost of repair and the cost consequences of the service disruption, with the latter including an allowance for customer costs. Many utilities want to increase their percentage of planned maintenance activities and reduce their percentage of corrective maintenance activities. A higher ratio may indicate a reduction in emergency maintenance resulting from system malfunctions (e.g., pipeline breaks or pump failures).

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years. The Authority adopted FY08 and FY09 policy objectives to improve planned/preventative maintenance activities by 25%. The increased hours will result from implementing a leak detection program which help will reduce emergency repairs. An objective for FY10 will focus on increasing water operations planned, preventative and predictive maintenance for groundwater facilities by 25%.

Planned maintenance is a key component to the Authority's asset management program. In FY08, the Authority sent several operation and maintenance staff to a maintenance training conference to learn how to replace costly and ineffective reactive activities, how to create reliability and managing physical assets, how to create an effective maintenance training program, and to listen to hear case studies and learn advanced techniques in preventative maintenance. In FY09, the Authority hired four planners/schedulers to assist in coordinating and scheduling work orders and projects to maximize efficiency and enhance productivity. Moreover, these new planners/schedulers will be dedicated to developing and updating predictive, preventative and condition-based maintenance programs and participate in monitoring and evaluating the programs' effectiveness.

### **FY10 Related Objectives**

 Increase water operations planned, preventative and predictive maintenance for groundwater facilities by 25% (from approximately 3,000 hours to 3,750 hours) by the end of the 4th Quarter of FY10.

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### 1-6 Water Conservation Savings

### Performance Results (Gallons per Capita)

Measure Type	Purpose	Inputs				Outcome			
	Measure water savings	Gallons per	Baseline	Prior	Year Act	uals	Current/Est	Projected	Reduce water
	by comparing the	person per	Daseille	2006	2007	2008	2009	2010	consumption to
Effectiveness	annual consumption and account growth by customer class	day	164	165	167	161	159	157	extend water resources and minimize environment impacts

### Industry Benchmark

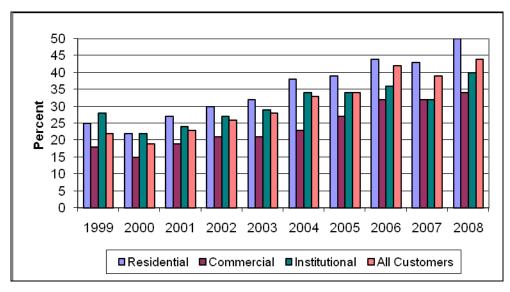
Currently, there is no industry standard for measuring water conservation savings. Water conservation is not performance measure that is tracked by AWWA on the national scale. In a 2001 report that included thirteen western communities, the Authority's water usage is comparable to the other communities. The range of water use per capita was from 167 gpcd (El Paso) to 366 gpcd (Scottsdale) for all classes. The mean for all the communities surveyed was 229 gpcd. There were thirteen cities in the study: Albuquerque, Boulder, Denver, El Paso, Grand Junction, Highlands Ranch, Las Vegas, Mesa, Phoenix, Scottsdale, Taylorsville, Tempe and Tucson. In 2001, the Authority's system-wide per capita usage was 205 gpcd. At the end of 2008, it was 161 gpcd. Comparable cities in the Southwest (population and annual precipitation) reported lower daily water usage per capita: El Paso reported 133 gpcd and Tucson reported 142 gpcd. The gallons per capita per day method, divides the total water produced by the total population served.

Since 1995, the Authority has utilized the per account method to measure water conservation savings. Based on AWWA recommendations, this is the preferred method of measuring water conservation savings. The per account method compares water use in the baseline years for an account type to water use in the current year. The Authority uses both methods of measurement in order to compare with other utilities. The table and chart below show the percent reduction in water conservation savings from 1999 to 2008 compared to the baseline years using the per account method.

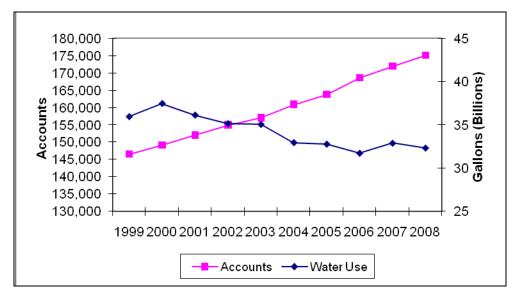
### Water Conservation Savings by Customer Class from Baseline Years (1987-1993)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Residential	25%	22%	27%	30%	32%	38%	39%	44%	43%	50%
Commercial	18%	15%	19%	21%	21%	23%	27%	32%	32%	34%
Institutional	28%	22%	24%	27%	29%	34%	10%	36%	32%	40%
All Customers	22%	19%	23%	26%	28%	33%	34%	42%	39%	44%

### **Water Conservation Savings by Customer Class Graph**



### **Comparison of Customer Accounts to Water Use**



### **Results Narrative**

The Authority has decreased its pumping by 18% despite a 28% growth in customer accounts compared to the baseline years (1987-1993). Water consumption has decreased by 44% compared to the baseline years.

In 2008, over 19 million gallons of water has been saved by the water conservation program assuming that without the conservation program, the population would have continued to use water at 250 gallons per capita per day. Authority customers have saved approximately 1.4 billion gallons since the water conservation program began in 1996.

Authority customers used six gallons less per person per day in 2008 than in 2007, bringing the metropolitan area's daily perperson water usage down to 161 gallons – the lowest per-person usage on record and four gallons below the 165-gallon annual goal for 2008. The Authority will continue to reduce water consumption by implementing several initiatives to reduce outdoor consumption and to target commercial and industrial users.

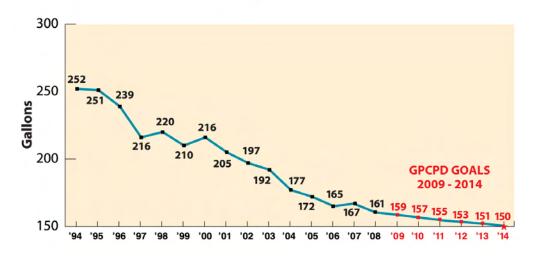
One reason for the success in 2008 goes to the 1-2-3-2-1 "Water by the Numbers" program, which asked Authority customers to voluntarily limit their outdoor water usage to one day per week in March, two days a week in April and May and three days a week in the summer before ramping down in the fall.



Authority customers replaced more than 8,500 water-guzzling high-flow toilets with low-flow models in 2008 (year two of "The Great Flush Rush" campaign) and earned almost \$1 million in rebates. The estimated yearly water savings: 30 million gallons. Rebates of \$100 per toilet will be available for low-flow toilets through the end of 2009, at which time the toilet rebate program will end. Authority customers can qualify for rebates of \$200 for super high-efficiency toilets, and rebates also are available for hot-water recirculation systems, multi-setting sprinkler controllers, rain sensors, rain barrels, compost, and replacement of turf with low-water use landscaping (xeriscaping).

The Authority's goal is to reduce per capita per day to 150 gpcd by 2014. The Authority must reduce per-capita water consumption under state requirements for the San Juan-Chama Drinking Water Project. The diagram below shows the Authority's progress since 1994 and the 150 gallons per person goal in 2014.

### Gallons Per Capita Per Day 1994 - 2008



### 2008 Customer Opinion Survey

- 65% of customers are either very or somewhat satisfied with the education they receive on water issues and conservation programs
- 82% of customers feel that it is very or somewhat important for the Authority to increase water conservation programs

### **FY10 Related Objectives**

Achieve water use of 159 gallons per person per day by the end of the 2nd Quarter of FY10.

# Goal 2: Wastewater Collection & Operations

### **Guiding Goal Statement**

Provide reliable, safe and affordable wastewater collection, treatment and reuse systems to protect the health of the Middle Rio Grande Valley by safeguarding the regional watershed, minimizing environmental impacts, and returning quality water to the Rio Grande for downstream users.

### **Goal Performance Scorecard**

Performance Measure	Status	Trend
Sewer Overflow Rate		
Collection System Integrity		
Wastewater Treatment Effectiveness Rate		
O&M Cost Ratios: O&M Cost per account		
O&M Cost Ratios: O&M Cost per MG processed	<b>A</b>	<u> </u>
O&M Cost Ratios: Direct cost of treatment per MG	<b>A</b>	_
Planned Maintenance Ratio: hours		
Planned Maintenance Ratio: cost		
Overall Goal Status		



### FY10 Performance Plan Goal 2: Wastewater Collection and Operations

#### **Sewer Overflow Rate** 2-1

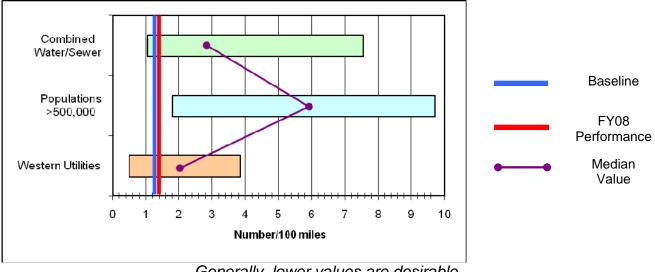
### Performance Results

Measure Type	Purpose	Inputs	Outputs					Outcome	
	Quantify the condition	Number of	Baseline	Prior Year Actuals		Current/Est	Projected	Improve the	
Effectiveness	of the collection system and the effectiveness of routine maintenance	sewer overflows per 100 miles of collection piping	Daseille	FY06	FY07	FY08	FY09	FY10	condition and
			1.3	1.10	1.40	1.30	1.20	1.10	reliability of the collection system and reduce customer complaints

### **Industry Benchmark**

	Combined	1	Utilities with populations		Utilities located in the			
Water/W	astewater Utilities greater than 500,000 Western United States			greater than 500,000		States		
Тор	Median	Bottom	Тор	Median	Bottom	Тор	Median	Bottom
Quartile	Wedian	Quartile	Quartile	Wedian	Quartile	Quartile	Wiediaii	Quartile
1.04	2.73	7.56	1.79	6.09	9.72	0.49	2.04	3.85

### **Performance Comparison Chart**



### FY10 Performance Plan Goal 2: Wastewater Collection and Operations

### **Results Narrative**

Overflows are good measures of collection system condition and the effectiveness of maintenance activities. This measure is intended to measure overflows created by conditions within collection system components under control of the utility. This measure does not include conditions which are deemed outside control of the utility such as general flooding from wet weather conditions.

### Measurement Status

The Authority's performance in this measure has been above the median range for the past three fiscal years and is on-target to maintain a very low overflow rate for the next two fiscal years. An objective for FY10 is to develop and implement asset management decision-making for the collection system by applying asset management principles to reduce sewer overflows, televising 20% of unlined concrete interceptors per year.

### 2008 Customer Opinion Survey

- 57% of customers are either very or somewhat satisfied with the condition of the sewer lines in the number of overflows that they may observe
- 48% of customers are either very or somewhat satisfied with the effectiveness of the Authority to respond to overflows or backups and the response time for restoring service

### **FY10 Related Objectives**

 Develop and implement asset management decision-making for the collection system by applying asset management principles to reduce sewer overflows; televising 20% of unlined concrete interceptors per year; and increasing collection station preventive maintenance work orders by 25% by the end of the 4th Quarter of FY10.

#### 2-2 **Collection System Integrity**

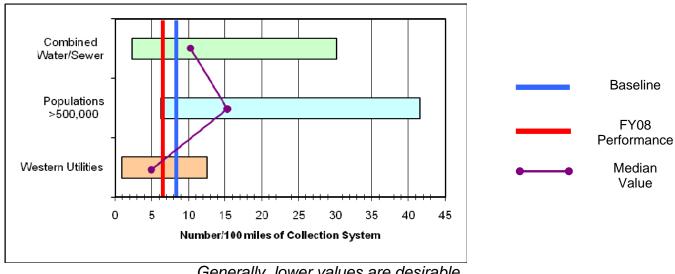
### Performance Results

Measure Type	Purpose	Inputs				Outcome			
	Measure of the	Number of	Baseline	Prior	Year Act	uals	Current/Est	Projected	Improve the
	condition of a sewage collection system	collection system failures each year	Daseille	FY06	FY07	FY08	FY09	FY10	condition and
Effectiveness					9.6	6.6	6.0	5.5	capacity of the
Ellectivelless		per 100 miles of	8.2	8.3					collection system
		collection system	0.2	0.3		6.6	6.0	5.5	and minimize
		piping							catastrophic failures

#### **Industry Benchmark**

	Combined			with pop		Utilities located in the			
Water/W	Water/Wastewater Utilities			greater than 500,000			Western United States		
Тор	Median	Bottom	Тор	Median	Bottom	Тор	Median	Bottom	
Quartile	Wedian	Quartile	Quartile	Wedian	Quartile	Quartile	Median	Quartile	
2.3	10.3	30.2	6.2	15.0	41.6	0.9	4.0	12.5	

# **Performance Comparison Chart**



Generally, lower values are desirable

#### **Results Narrative**

When tracked over time, a utility can compare its failure rate to those at other utilities and it can evaluate whether its own rate is decreasing, stable, or increasing. When data is maintained by the utility to characterize failures according to pipe type and age, type of failure, and cost of repairs, better decisions regarding routine maintenance and replacement/renewals can be made.

#### **Measurement Status**

The Authority's performance in this measure has been within the median range for the past three fiscal years. The Authority has increased its capital spending on sewer interceptor replacement to help minimize expensive catastrophic failures. An objective for FY10 is to develop and implement asset management decision-making for the collection system by applying asset management principles to reduce sewer overflows, televising 20% of unlined concrete interceptors per year.

#### 2008 Customer Opinion Survey

- 96% of customers are either very or somewhat satisfied with the reliability of wastewater collection
- 76% of customers are either very or somewhat satisfied with the effectiveness of the Authority to control odors form sewer lines or treatment facilities

#### FY10 Related Objectives

Develop and implement asset management decision-making for the collection system by applying asset management principles to reduce sewer overflows; televising 20% of unlined concrete interceptors per year; and increasing collection station preventive maintenance work orders by 25% by the end of the 4th Quarter of FY10.

# 2-3 Wastewater Treatment Effectiveness Rate

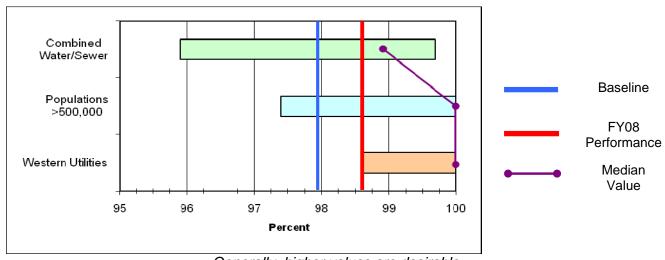
#### Performance Results

Measure Type	Purpose	Inputs		Outputs					
	Quantify the	Percent of time each	Baseline	Prior	Year Ac	tuals	Current/Est	Projected	Minimize
	Authority's compliance	year that an individual	Daseille	FY06	FY07	FY08	FY09	FY10	environmental
Quality	with the effluent quality standards in effect at each of its wastewater treatment facilities	wastewater treatment facility is in full compliance with applicable effluent quality requirements	97.9%	97.5%	97.5%	98.6%	95.0%	97.0%	impacts to the river by returning high quality water to the river

# Industry Benchmark

	Combined astewater			with poper than 50			es located rn United	
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
99.7%	98.8%	95.9%	100.0%	100.0%	97.4%	100.0%	99.9%	98.6%

# **Performance Comparison Chart**



#### **Results Narrative**

The wastewater treatment effectiveness rate allows a utility to compare its treatment effectiveness rate for its facility with those at other utilities. It also can track its individual facility performances over time. Ideally, the percentage of days in a year that the treatment facility satisfies all discharge permit requirements should be 100%. A number lower than this indicates that a violation occurred during the year.

#### **Measurement Status**

The Authority's performance in this measure has been within the median range for the past three fiscal years. The Authority's goal in for FY08 is to have no more than five non-compliance days. The Authority achieved this goal and was awarded the NACWA Silver award. The policy objective for FY09 and FY10 is to continue this performance during major rehabilitation activities at the wastewater treatment plant over the next three fiscal years.

#### 2008 Customer Opinion Survey

 83% of customers feel that it is very or somewhat important that the Authority should return high quality treated water back to the river

#### FY10 Related Objectives

- Limit overall permit excursions to no more than 5 operating discharge permit violations through the end of the 4th Quarter of FY10.
- Construct ultraviolet disinfection facilities replace the current chlorine gas for disinfection and sulfur dioxide gas for dechlorination at the treatment plant by the end of the 4th Quarter of FY10.
- Develop and implement a long-term reclamation rehabilitation plan with the goal to expedite outmoded equipment replacement and plant facilities renovation based on asset management principles by identifying and prioritizing high-risk assets. The goal is to design and construct \$15 million of improvements per year while maintaining efficient operation of Southside Water Reclamation Plant through the 4th Quarter of FY10.

# 2-4 Operations and Maintenance Cost Ratio

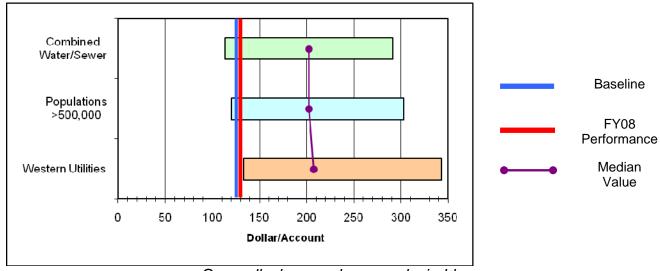
# Performance Results for O&M Cost per Account

Measure Type	Purpose	Inputs		Outputs					
	Quantify all utility costs related to	Total O&M	Baseline	Prio	Year Ac	Projected	Maintain lower		
	operations and maintenance	costs and	Baseline	FY06	FY07	FY08	FY09	FY10	O&M costs
Effectiveness	(O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	total number of active customer accounts	\$124	\$117	\$123	\$132	\$136	\$144	without reducing customer level of service

#### Industry Benchmark for O&M Cost per Account

					ulations	Utilities located in the			
Water/W	astewater	<sup>r</sup> Utilities	es greater than 500,000 Western United Sta				States		
Тор	Median	Bottom	Тор	Median	Bottom	Тор	Median	Bottom	
Quartile	Wedian	Quartile	Quartile	Wiediaii	Quartile	Quartile	Wiediaii	Quartile	
\$114	\$209	\$291	\$120	\$209	\$303	\$133	\$213	\$343	

# Performance Chart for O&M Cost per Account



Generally, lower values are desirable

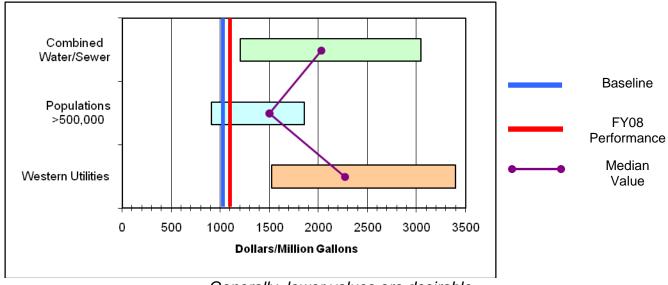
# Performance Results for O&M Cost per MG Collected

Measure Type	Purpose	Inputs		Outputs						
	Quantify all utility costs related to	Total O&M	Pasalina	Prio	Year Ac	tuals	Current/Est	Projected	Maintain lower	
	operations and maintenance (O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	costs and total wastewater collected	Baseline	FY06	FY07	FY08	FY09	FY10	O&M costs	
Effectiveness			\$1,010	\$983	\$1,004	\$1,043	\$1,073	\$1,136	without reducing customer level of service	

### Industry Benchmark for O&M Cost per MG Collected

	Combined astewater			with pop er than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
\$1,200	\$2,022	\$3,044	\$906 \$1,500 \$1,859 \$1,523				\$2,293	\$3,398

#### Performance Comparison for O&M Cost per MG Collected



Generally, lower values are desirable

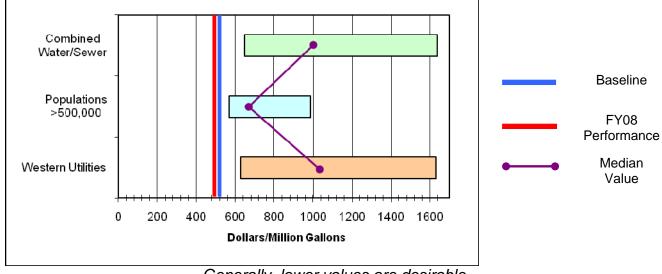
#### Performance Results for O&M Cost of Treatment per MG

Measure Type	Purpose	Inputs		Outputs						
	Quantify all utility costs related Total Direct Passing Prior Year Actuals Current/Est Project						Projected	Maintain lower		
	to operations and maintenance	O&M costs	Baseline	FY06	FY07	FY08	FY09	FY10	O&M costs	
Effectiveness	(O&M), with breakouts of those costs related to water treatment, as related to volumes processed and the number of active customers	and total wastewater treated	\$529	\$540	\$531	\$516	\$544	\$614	without reducing customer level of service	

#### Industry Benchmark for O&M Cost of Treatment per MG

	Combined astewater			with pop er than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
\$648	\$1,006	\$1,636	\$569	\$676	\$987	\$630	\$1,080	\$1,630

# Performance Comparison for O&M Cost of Treatment per MG



Generally, lower values are desirable

#### **Results Narrative**

These related measures tally the cost of O&M per account and per million gallons of wastewater processed. Comparing the value of this measure with other utilities can provide information regarding the status of current accepted practices.

#### Measurement Status

The Authority's performance in this measure has been above the median range for the past three fiscal years and is on-target to maintain this performance for the next two fiscal years.

A policy objective for FY10 is to develop a comprehensive energy master plan for the Authority. The plan will include demand and potential energy reduction measures and costs to implement alternative clean energy sources for use by the Authority.

#### FY10 Related Objectives

- Beneficially reuse biosolids by diverting 15% of the biosolids to compost; blend water treatment plant iron residuals with biosolids compost to enhance the nutrient value of the compost; continue to explore new markets for compost through the end of the 4th Quarter of FY10.
- Develop a comprehensive energy master plan for the Water Authority by the end of the 4th Quarter of FY10. The plan should include demand and potential energy reduction measures and costs to implement alternative clean energy sources for use by the Water Authority.

# 2-5 Planned Maintenance Ratio

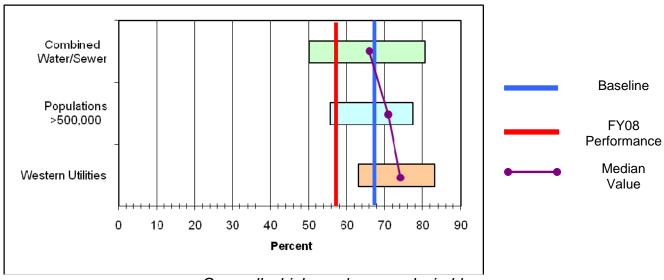
# Performance Results (Hours)

Purpose	Inputs		Outputs					
mparison of how	Hours of planned	Pacalina	Prior	Year Ac	tuals	Current/Est	Projected	Reduce
ectively the Authority	maintenance compared to hours of corrective	Daseille	FY06	FY07	FY08	FY09	FY10	emergency
is in investing in planned maintenance		66.7%	77.8%	65.5%	56.7%	64.0%	67.0%	maintenance from system malfunctions
) )	parison of how ctively the Authority investing in planned	parison of how Hours of planned maintenance investing in planned compared to hours of	parison of how ctively the Authority investing in planned attenance compared to hours of corrective C66.7%	parison of how ctively the Authority investing in planned attenance trenance  The parison of how maintenance compared to hours of corrective  Hours of planned maintenance compared to hours of corrective  The parison of how maintenance compared to hours of corrective  FY06	parison of how citively the Authority investing in planned attenance tenance  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective  Thours of planned maintenance compared to hours of corrective corrective corrective corrections and corrective corrections corrective corrections corrective corrections corrective corrections co	parison of how citively the Authority investing in planned intenance corrective  Hours of planned maintenance compared to hours of corrective  Baseline Prior Year Actuals FY06 FY07 FY08  66.7% 77.8% 65.5% 56.7%	parison of how citively the Authority investing in planned intenance corrective    Description of how citively the Authority investing in planned intenance compared to hours of corrective    Description of how maintenance compared to hours of corrective   Baseline   Prior Year Actuals   Current/Est	parison of how citively the Authority investing in planned attenance tenance intenance attenance intenance

# Industry Benchmark (Hours)

	Combined astewater			with poper than 50			s located	
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
80.6%	66.6%	50.0%	77.3%	71.2%	55.6%	83.1%	74.2%	63.0%

# Performance Comparison Chart (Hours)



Generally, higher values are desirable

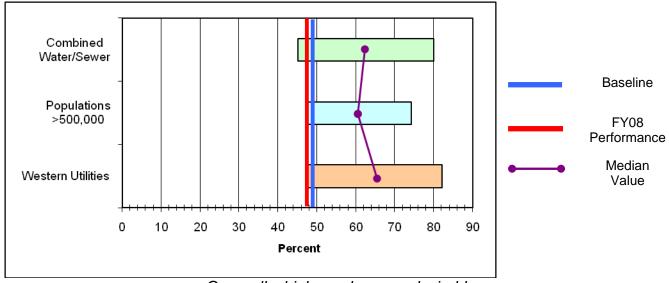
# Performance Results (Cost)

Measure Type	Purpose	Inputs			(	Outputs			Outcome
	Comparison of how	Cost of planned	Baseline	Prior	Year Ac	tuals	Current/Est	Projected	Reduce
	effectively the Authority is in investing in planned maintenance	maintenance compared to cost of corrective maintenance	Daseille	FY06	FY07	FY08	FY09	FY10	emergency
Effectiveness			48.8%	52.0%	46.9%	47.4%	50.0%	53.0%	maintenance from system malfunctions

# Industry Benchmark (Cost)

	Combined astewater		Utilities with populations greater than 500,000			Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
80.0%	64.4%	45.1%	74.3%	60.2%	47.8%	82.2%	65.8%	47.5%

# Performance Comparison Chart (Cost)



Generally, higher values are desirable

#### **Results Narrative**

Planned maintenance includes preventive and predictive maintenance. Preventive maintenance is performed according to a predetermined schedule rather than in response to failure. Predictive maintenance is initiated when secondary monitoring signals from activities indicate that maintenance is due. All other maintenance is categorized as corrective (i.e., maintenance resulting from an asset that is no longer providing reliable service such as a breakdown, blockage, or leakage). Planned maintenance is preferable for assets for which the cost of repairs is high relative to the cost of corrective maintenance. The avoided cost includes both the cost of repair and the cost consequences of the service disruption, with the latter including an allowance for customer costs. Many utilities want to increase their percentage of planned maintenance activities and reduce their percentage of corrective maintenance activities. A higher ratio may indicate a reduction in emergency maintenance resulting from system malfunctions.

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years and is on-target to maintain this performance for the next two fiscal years. An objective for FY10 is to increase planned/preventative work orders by 50% at the wastewater treatment plant and to increase collection station preventive maintenance work orders by 25%.

Planned maintenance is a key component to the Authority's asset management program. In FY08, the Authority sent several operation and maintenance staff to a maintenance training conference to learn how to replace costly and ineffective reactive activities, how to create reliability and managing physical assets, how to create an effective maintenance training program, and to listen to hear case studies and learn advanced techniques in preventative maintenance. In FY09, the Authority hired four planners/schedulers to assist in coordinating and scheduling work orders and projects to maximize efficiency and enhance productivity. Moreover, these new planners/schedulers will be dedicated to developing and updating predictive, preventative and condition-based maintenance programs and participate in monitoring and evaluating the programs' effectiveness.

#### FY10 Related Objectives

 Increase treatment plant preventive maintenance work orders by 50% (approximately 500 workorders to 750 workorders) by the end of the 4th Quarter of FY10.

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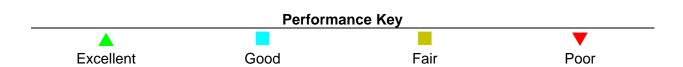
# **Goal 3: Customer Services**

# **Guiding Goal Statement**

Provide quality customer services by communicating effectively, billing accurately, and delivering water and wastewater services efficiently based on understanding the needs and perceptions of our customers and the community at large.

# **Goal Performance Scorecard**

Performance Measure	Status	Trend
Customer Service Complaints		
Technical Quality Complaints		
Customer Service Cost per Account	<u> </u>	<u> </u>
Billing Accuracy		
Planned Disruption of Service		
UnPlanned Disruption of Service		
Residential Cost of Water Service		
Residential Cost of Wastewater Service	_	
Overall Goal Status		



# 3-1 Customer Service Complaints and Technical Quality Complaints

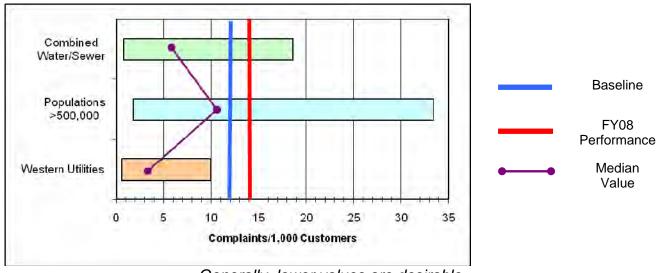
# Performance Results (Service Associated Complaints)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Measure the complaint rates	Number of customer service complaints per 1,000 customer accounts	Pacalina	Prior Year Actuals			Current/Est	Projected	Improve
Effectiveness	experienced by the Authority, with individual quantification of those related to customer service and those related to core utility services		Baseline -	FY06	FY07	FY08	FY09	FY10	customer satisfaction with service and product
			12.0	8.4	13.5	14.3	15.0	15.5	

### Industry Benchmark (Service Associated Complaints)

	Combined Water/Wastewater Utilities			with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
0.8	5.2	18.6	1.8	11.0	33.4	0.6	3.0	9.9

#### Performance Comparison Chart (Service Associated Complaints)



Generally, lower values are desirable

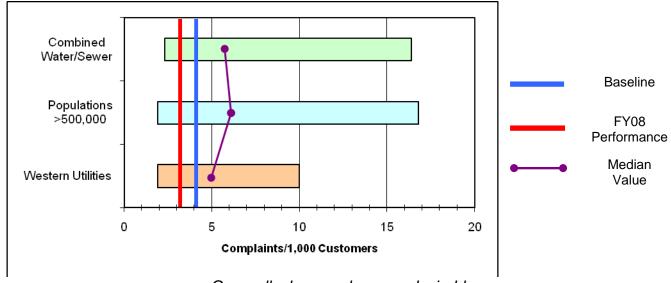
# Performance Results (Technical Quality Complaints)

Measure Type	Purpose	Inputs			(	Outputs			Outcome
	Measure the complaint Number of technical Page Prior Year Actuals Cu					Current/Est	Projected	Improve	
	rates experienced by the	quality complaints	Baseline	FY06	FY07	FY08	FY09	FY10	customer
Effectiveness	Authority, with individual quantification of those related to customer service and those related to core utility services	per 1,000 customer accounts	4.2	4.3	5.0	3.4	4.0	5.0	satisfaction with service and product

# Industry Benchmark (Technical Quality Complaints)

	Combined Water/Wastewater Utilities			with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
2.3	6.2	16.4	1.9	5.7	16.8	1.9	5.0	10.0

# Performance Comparison Chart (Technical Quality Complaints)



Generally, lower values are desirable

#### Results Narrative

These pair of measures captures all complaints received by the utility, which are reported either as "service associated" or as "technical quality" complaints. The number of complaints is a good measure of customer service. The two categories allow a utility to track those that are people related and those that are product related.

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years. The Authority adopted a policy objective to develop a Customer Relations Strategy and Customer Outreach and Education Program in order to improve customer service. The Authority adopted a policy objective in FY09 is to reduce call wait time to less than 1 minute, 90 percent of the time by use of staffing and technology which will make this closer to the water industry standard. In addition, the Authority initiated a new phone system upgrade that allows customers to pay their bills by phone and provide 24/7 service to billing, emergencies, and reporting water waste. The Authority plans to maintain the call wait time metric in FY10 as its Customer Services Division implements a new billing system.

In FY09, the Customer Services Division developed customer relations performance benchmarks based on best practices through the Water Research Foundation. It will benchmark its performance throughout FY09 and FY10 and identify areas of improvement.

Another FY10 objective is to conduct a customer opinion survey in order to assess the Water Authority's performance from the customer's viewpoint from previous surveys. This will be the third customer opinion survey.

#### 2008 Customer Opinion Survey

- 75% of customers gave either excellent or good rating on the overall quality of service provided by a customer service representative
- 84% of customers are either very or somewhat satisfied with the courtesy of the customer service representative
- 80% of customers are either very or somewhat satisfied with the knowledge and ability to answer your questions or resolve your issues
- 67% of customers are either very or somewhat satisfied with the length of wait to speak with a customer service representative

#### FY10 Related Objectives

- Maintain call wait time to less than 1 minute, 90 percent of the time through the 4th Quarter of FY10.
- Implement improvements based on customer relations performance benchmarks through the end of the 4th Quarter of FY10.
- Conduct a customer opinion survey in order to assess the Water Authority's performance from the customer's viewpoint from previous surveys by the end of the 3rd Quarter of FY10.

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#### 3-2 **Customer Service Cost per Account**

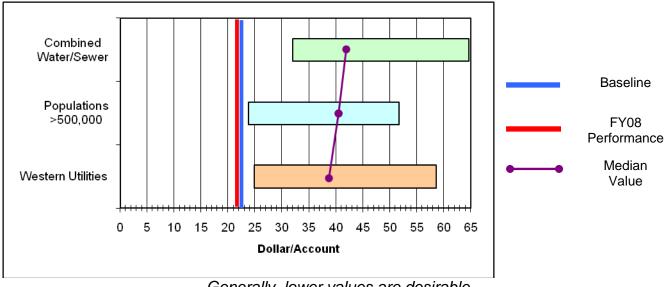
### Performance Results

Measure Type	Purpose	Inputs			C	Outputs			Outcome
	Measure the amount of	Total customer	Baseline	Prior `	Year Ac	tuals	Current/Est	Projected	Improve efficiency by
	resources the Authority	stomer number of active	Daseille	FY06	FY07	FY08	FY09	FY10	reducing customer
Efficiency	applies to its customer service program		\$24	\$24	\$24	\$23	\$24	\$25	service cost per account while meeting customer expectations

# **Industry Benchmark**

Combined Water/Wastewater Utilities				with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
\$31.96	\$42.03	\$64.64	\$23.83	\$41.24	\$51.69	\$24.92	\$38.82	\$58.64

# **Performance Comparison Chart**



Generally, lower values are desirable

#### **Results Narrative**

The measure is expressed as the cost of managing a single customer account for one year. When viewed alone, it quantifies resource efficiency. Viewing in conjunction with other measures such as customer complaints gives the utility more information about operational performance.

#### Measurement Status

The Authority's performance in this measure has been above the median range for the past three fiscal years. When compared to the number of customer complaints, it shows that the Authority is both effective and efficient with its resources.

#### FY10 Related Objectives

- Increase paperless billing to 10,000 enrollments by the end of the 4th Quarter of FY10.
- Expand the Automated Meter Reading by expending \$5.5 million on small meter replacement by the end of the 4th Quarter of FY10.

# 3-3 Billing Accuracy

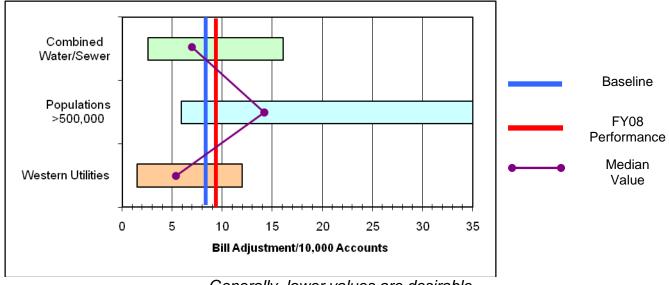
### Performance Results

Measure Type	Purpose	Inputs			(	Outputs			Outcome
	Measure the Number of error-driven		Baseline	Prior	Year Ac	tuals	Current/Est	Projected	Improve billing
	effectiveness of the Authority's billing adjustments per 10,000 bills generated during the year	10,000 bills generated	Daseille	FY06	FY07	FY08	FY09	FY10	accuracy to
Effectiveness									minimize
			7.3	7.2	5.5	9.3	11.0	9.0	customer
									complaints

# **Industry Benchmark**

	Combined astewater			with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
2.6	7.1	16.1	5.9	14.3	35.0	1.5	5.6	12.0

# **Performance Comparison Chart**



Generally, lower values are desirable

#### **Results Narrative**

Customers rarely think about their utility, unless they have a problem with service or billing. This measure helps a utility measure how effective its billing practices are relative to others.

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years. In recent years, the Authority has reduced its backlog of service turn offs from 1,200 to 250 per month which helped reduce delinquency rate from 2% to 1%. In FY08, there was an increase in error-driven billing adjustments due to misreads caused by below average temperatures; the misreads resulted in rebilling the accounts.

#### 2008 Customer Opinion Survey

- 87% of customers are either very or somewhat satisfied with the accuracy of their bill
- 86% of customers are either very or somewhat satisfied with the bill format and water usage graph

#### 3-4 **Disruptions of Water Service**

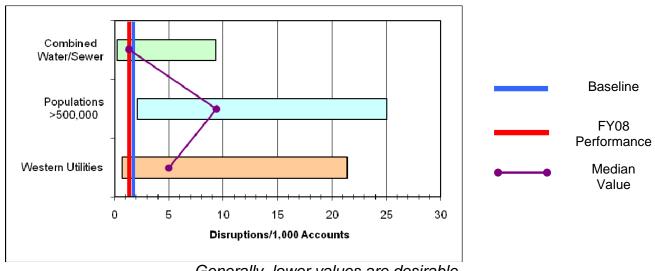
# Performance Results Planned (less than 4 hours)

Measure Type	Purpose	Inputs			Outcome				
	Quantify the numbers of water	Number of customers experiencing	Baseline	Prior	Year Ad	tuals	Current/ Est	Projected	Reduce water supply interruptions and
	outages	disruption of service		FY06	FY07	FY08	FY09	FY10	provide reliable water
Effectiveness	experienced by Authority customers	per 1,000 customer accounts per year	1.8	1.66	2.13	1.63	1.33	1.00	service to meet customer expectations of full water service all of the time

### Industry Benchmark Planned (less than 4 hours)

	Combined	1	Utilities	with pop	ulations	Utilities located in the			
Water/W	astewater	<b>Utilities</b>	greater than 500,000			Western United States			
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	
0.22	1.26	9.29	2.09 9.85 25.00 0.67 5.00				21.40		

# Performance Comparison Chart Planned (less than 4 hours)



Generally, lower values are desirable

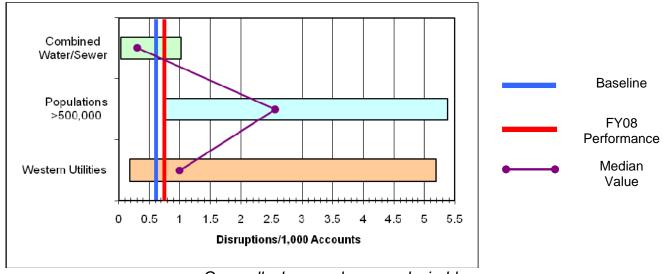
# Performance Results Planned Disruptions (between 4 and 12 hours)

Measure Type	Purpose	Inputs				Outcome			
	Quantify the numbers of water	Number of customers experiencing	Baseline	Prior	Year Ad	tuals	Current/ Est	Projected	Reduce water supply interruptions and
	outages	disruption of service		FY06	FY07	FY08	FY09	FY10	provide reliable water
Effectiveness	experienced by Authority customers	per 1,000 customer accounts per year	0.6	0.15	1.01	0.75	0.65	0.50	service to meet customer expectations of full water service all of the time

#### Industry Benchmark (between 4 and 12 hours)

	Combined astewater			with poper than 50		Utilities located in the Western United States			
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	
0.03	0.28	1.02	0.75	2.53	5.38	0.18	1.00	5.20	

# Performance Comparison Chart Planned Disruptions (between 4 and 12 hours)



Generally, lower values are desirable

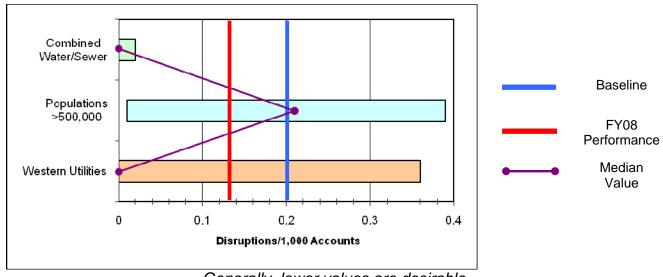
# Performance Results Planned Disruptions (greater than 12 hours)

Measure Type	Purpose	Inputs				Outcome			
	Quantify the numbers of water	Number of customers experiencing	Baseline	Prior	Year Ac	tuals	Current/ Est	Projected	Reduce water supply interruptions and
	outages	disruption of service		FY06	FY07	FY08	FY09	FY10	provide reliable water
Effectiveness	experienced by Authority customers	per 1,000 customer accounts per year	0.2	0.33	0.18	0.13	0.11	0.09	service to meet customer expectations of full water service all of the time

#### Industry Benchmark (greater than 12 hours)

	Combined astewater			with poper than 50		Utilities located in the Western United States			
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	
0.00	0.00	0.02	0.01	0.22	1.39	0.00	0.00	0.36	

# Performance Comparison Chart Planned Disruptions (greater than 12 hours)



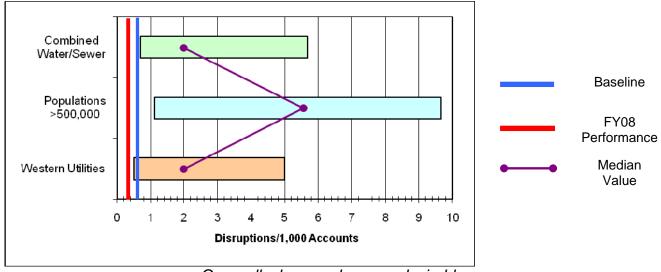
# Performance Results Unplanned Disruptions (less than 4 hours)

Measure Type	Purpose	Inputs			Outcome				
	Quantify the numbers of water	Number of customers experiencing	Baseline	Prior	Year Ad	tuals	Current/ Est	Projected	Reduce water supply interruptions and
	outages	disruption of service		FY06	FY07	FY08	FY09	FY10	provide reliable water
Effectiveness	experienced by Authority customers	per 1,000 customer accounts per year	0.6	1.01	0.43	0.36	0.30	0.25	service to meet customer expectations of full water service all of the time

#### Industry Benchmark (less than 4 hours)

	Combined astewater			with poper than 50		Utilities located in the Western United States			
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	
0.70	1.94	5.68	1.12	5.63	19.66	0.50	1.98	5.00	

# Performance Comparison Chart Unplanned (less than 4 hours)



Generally, lower values are desirable

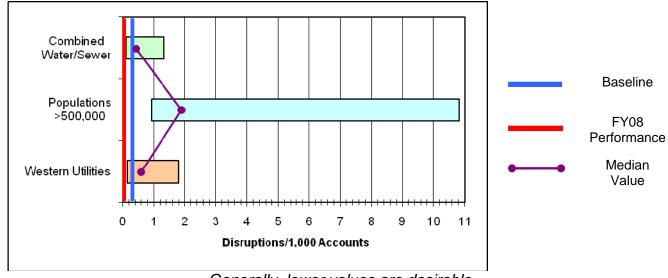
# Performance Results Unplanned Disruptions (between 4 and 12 hours)

Measure Type	Purpose	Inputs				Outcome			
	Quantify the numbers of water	Number of customers experiencing	Baseline	Prior	Year Ac	tuals	Current/ Est	Projected	Reduce water supply interruptions and
	outages	disruption of service		FY06	FY07	FY08	FY09	FY10	provide reliable water
Effectiveness	experienced by Authority customers	per 1,000 customer accounts per year	0.3	0.61	0.20	0.17	0.15	0.12	service to meet customer expectations of full water service all of the time

#### Industry Benchmark (between 4 and 12 hours)

	Combined astewater			with poper than 50		Utilities located in the Western United States			
Top Quartile	Median	Bottom Quartile	Bottom Top Median Bottom				Median	Bottom Quartile	
0.10	0.43	1.33	0.93	1.85	10.83	0.14	0.50	1.79	

# Performance Comparison Chart Unplanned Disruptions (between 4 and 12 hours)



Generally, lower values are desirable

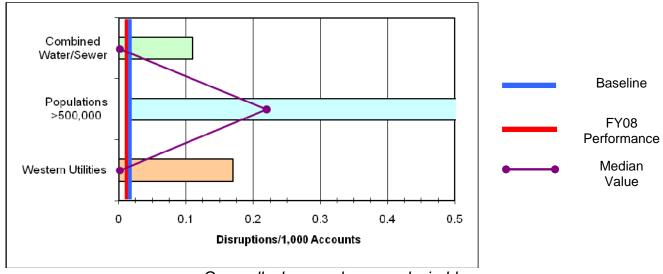
# Performance Results Unplanned Disruptions (greater than 12 hours)

Measure Type	Purpose	Inputs			Outcome				
	Quantify the numbers of water	Number of customers experiencing	Baseline	Prior	Year Ad	tuals	Current/ Est	Projected	Reduce water supply interruptions and
	outages	disruption of service		FY06	FY07	FY08	FY09	FY10	provide reliable water
Effectiveness	experienced by Authority customers	per 1,000 customer accounts per year	0.0	0.05	0.03	0.03	0.03	0.03	service to meet customer expectations of full water service all of the time

#### Industry Benchmark (greater than 12 hours)

		Combined astewater			with poper than 50		Utilities located in the Western United States			
	Top Quartile	Median	Bottom Quartile	Bottom Top Median Bottom Top Median					Bottom Quartile	
ĺ	0.00	0.00	0.11	0.01	0.22	1.57	0.00	0.00	0.17	

# Performance Comparison Chart Unplanned Disruptions (greater than 12 hours)



Generally, lower values are desirable

#### **Results Narrative**

Customers have come to expect full water service all of the time. Maintenance and repair work that result in water outages or substantially reduced water pressure disrupt customer plans, bring complaints, and diminish goodwill toward the utility. This family of measures quantifies the numbers and durations of water service disruptions. It does not address inconveniences resulting from access limitations around construction and repair work sites. Six separate measures are supported: planned and unplanned service disruptions for durations of less than 4 hours, between 4 and 12 hours, and more than 12 hours. Large numbers and proportions of unplanned service disruptions likely reflect on distribution system inadequacies. Outages of long durations may be indicative of poor repair practices. The measure is calculated separately for planned and unplanned disruptions of three different durations. For each of these six categories, the rate is expressed as the number of customers experiencing disruptions per 1,000 active customer accounts.

#### Measurement Status

The Authority's performance for planned and unplanned disruptions in the three different durations has been within the median range for the past three fiscal years. It is anticipated that unplanned disruptions will decrease as planned maintenance activities such as the leak detection program are implemented.

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#### Residential Cost of Water and/or Sewer Service 3-5

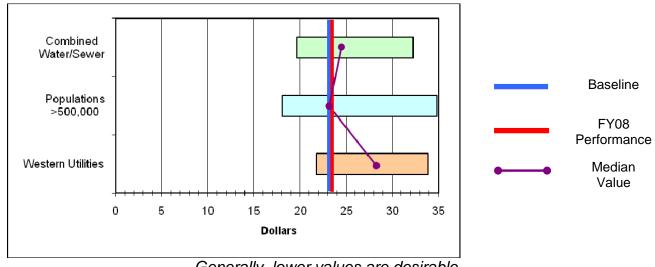
# Performance Results (Monthly Residential Water Service)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Compare the residential	Bill amount for monthly	Baseline	Prior Year Actuals			Current/Est	Projected	Provide
	cost of water and sewer	residential water/sewer	Daseille	FY06	FY07	FY08	FY09	FY10	affordable water
Efficiency	service based on both a defined quantity of water use and the average residential bill amounts for those services	vice based on both a service and average residential water/sewer bill for one month of service	\$24.27	\$24.00	\$24.40	\$24.40	\$24.40	\$24.40	and legally justifiable rates to our customers

# Industry Benchmark

(	Combined	1	Utilities	with pop	ulations	Utilities located in the			
Water/Wastewater Utilities			greater than 500,000			Western United States			
Top Quartile	Median	Bottom Quartile	Top Quartile Median Bottom Quartile			Top Quartile	Median	Bottom Quartile	
\$19.69	\$24.39	\$32.26	• • • • • • • • • • • • • • • • • • • •		\$27.64	\$21.77	\$27.75	\$33.84	

# Performance Comparison Chart (Monthly Residential Water Service)



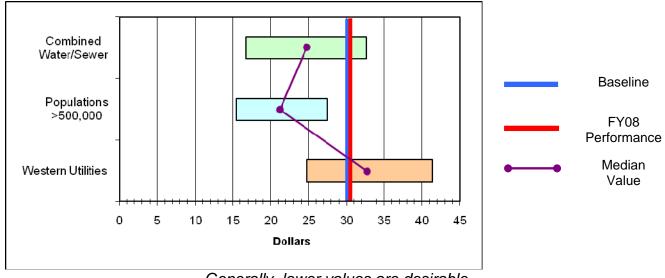
# Performance Results (Average Residential Water Service)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Compare the residential	Bill amount for monthly	Baseline	Prior Year Actuals			Current/Est	Projected	Provide
	cost of water and sewer	residential water/sewer	baseline	FY06	FY07	FY08	FY09	FY10	affordable water
Efficiency	service based on both a defined quantity of water use and the average residential bill amounts for those services	service and average residential water/sewer bill for one month of service	\$30.03	\$30.00	\$30.04	\$30.04	\$30.04	\$30.04	and legally justifiable rates to our customers

#### Industry Benchmark

Ī	(	Combined	1	Utilities	with pop	ulations	Utilities located in the			
	Water/W	astewater	<b>Utilities</b>	greater than 500,000			Western United States			
Ī	Тор	Median	Bottom	Тор	Median	Bottom	Тор	Median	Bottom	
	Quartile	Wedian	Quartile	Quartile   Wediaii   0		Quartile	Quartile	Wedian	Quartile	
Ī	\$16.70	\$24.40	\$32.60	\$15.44	,		\$24.82	\$33.43	\$41.35	

# Performance Comparison Chart (Average Residential Water Service)



Generally, lower values are desirable

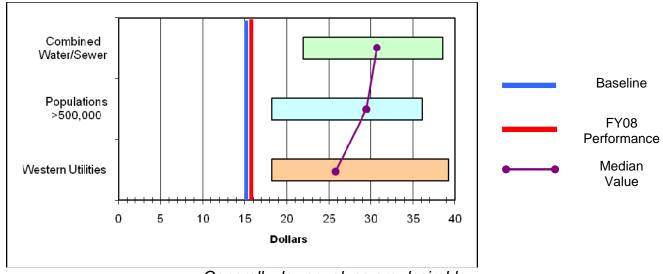
# Performance Results (Monthly Residential Sewer Service)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Compare the residential	Bill amount for monthly	Deceline	Prior Year Actuals			Current/Est	Projected	Provide
	cost of water and sewer	residential water/sewer	Baseline	FY06	FY07	FY08	FY09	FY10	affordable water
Efficiency	service based on both a defined quantity of water use and the average residential bill amounts for those services	service and average residential water/sewer bill for one month of service	\$15.02	\$15.00	\$15.03	\$15.03	\$15.03	\$15.03	and legally justifiable rates to our customers

#### **Industry Benchmark**

	Combined Water/Wastewater Utilities			with pop er than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
\$21.98	\$30.61	\$38.55	\$18.26	\$29.60	\$36.08	\$18.26	\$25.96	\$39.25

# Performance Comparison Chart (Monthly Residential Sewer Service)



Generally, lower values are desirable

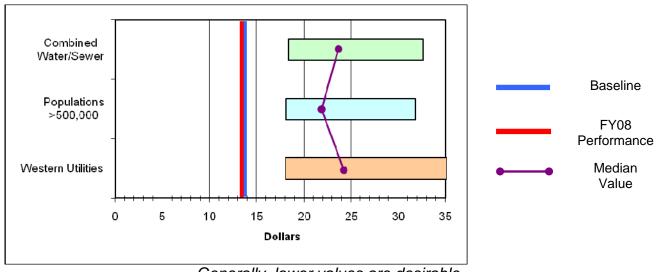
# Performance Results (Average Residential Sewer Service)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Compare the residential	Bill amount for monthly	Baseline	Prior Year Actuals			Current/Est	Projected	Provide
	cost of water and sewer	residential water/sewer		FY06	FY07	FY08	FY09	FY10	affordable water
Efficiency	service based on both a defined quantity of water use and the average residential bill amounts for those services	service and average residential water/sewer bill for one month of service	\$13.83	\$14.00	\$13.74	\$13.74	\$13.74	\$13.74	and legally justifiable rates to our customers

# Industry Benchmark

	Combined	1	Utilities	with pop	ulations	Utilities located in the		
Water/W	astewater	<b>Utilities</b>	greater than 500,000			Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
\$18.40	\$23.30	\$32.62	\$18.10	\$21.73	\$31.79	\$18.05	\$24.47	\$35.15

# Performance Comparison Chart (Average Residential Sewer Service)



Generally, lower values are desirable

#### **Results Narrative**

This measure shows individual costs for water and wastewater:

- 1. Bill amount for monthly residential water service for a customer using 7,500 gallons per month
- 2. Average residential water bill amount for one month of service
- 3. Bill amount for monthly residential wastewater service for a customer using 7,500 gallons of water per month
- 4. Average residential wastewater bill amount for one month of service

The data provided is based on a bill amount for a typical residential customer served water through a  $3/4 \times 5/8$ -inch meter. Because each utility is unique, this measure is quite complex. In some places, rates may be artificially low or high in order for achieve non-utility objectives. In others, utilities may have rates controlled by public utility commissions.

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years for monthly and average residential water and sewer service. The Authority completed a comprehensive water and wastewater rate study in FY05 which had not been done in over fifteen years. The Authority adopted a policy objective for FY08 to update that rate study in order to include wholesale water rates. Another reason to update the rate study is to include a cost of services model for master planned communities so that these new large developments pay 100% of the cost for building master planned facilities. The next comprehensive water and wastewater rate study is scheduled for FY11.

# 2008 Customer Opinion Survey

 84% of customers either strongly or somewhat agree that water and sewer services are a good value for the amount of money paid

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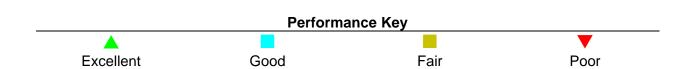
# Goal 4: Business Planning & Management

## **Guiding Goal Statement**

Maintain a well planned, managed, coordinated, and financially stable utility by continuously evaluating and improving the means, methods, and models used to deliver services.

# **Goal Performance Scorecard**

Performance Measure	Status	Trend
Debt Ratio	_	_
Return on Assets		
System Renewal / Replacement Rate (Water)	_	
System Renewal / Replacement Rate (Wastewater)		
Overall Goal Status	_	_



## 4-1 Debt Ratio

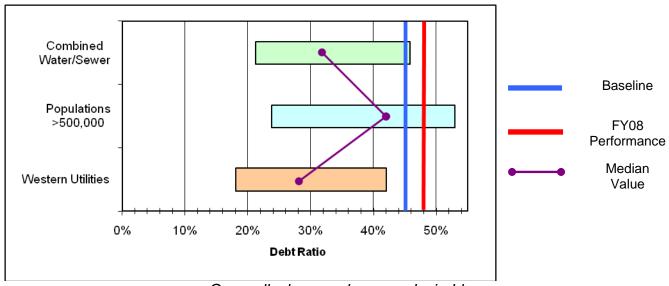
#### Performance Results

Measure Type	Purpose	Inputs				Outcome			
	Quantify the	Total liabilities and	Baseline	Prior	Year Actu	ıals	Current/Est	Projected	Maintain low debt
	Authority's level	total assets	Daseille	FY06	FY07	FY08	FY09	FY10	burden and
Effectiveness	of indebtedness								communicate fiscally
			45%	42%	46%	48%	50%	52%	responsible to our
									customers

## **Industry Benchmark**

	Combined astewater			with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
21%	32%	46%	24%	42%	53%	18%	28%	42%

# **Performance Comparison Chart**



Generally, lower values are desirable

#### **Results Narrative**

The higher the calculated debt ratio, the more dependent the utility is on debt financing. Many utilities use this measure as an internal measure of performance. Debt equity ratio is an important measure because a high debt burden brings larger costs for interest and capital repayments.

#### **Measurement Status**

The Authority's performance in this measure has been within the median range for the past three fiscal years.

From FY06 to FY07, assets increased by 9% while liabilities increased by 16%. From FY07 to FY08, assets increased by 8% while liabilities increased by 12%. The Authority is borrowing a significant amount of funds to pay for a new surface drinking water treatment plant as part of the \$500 million San Juan Chama Drinking Water Project. The Debt Ratio is good indicator of how much debt can be absorbed. The Authority also uses the Debt Service Ratio as an indicator on how much revenues are available to pay for debt service.

The Authority's bond rating has increased for the second time in three years. Standard and Poors upgraded the Authority's bond rating from AA to AAA, one of the highest ratings an agency can receive. In 2006, Moody's Investor Services upgraded the Authority's bond rating from Aa2 to Aa3. Fitch assigned a bond rating of AA with a positive outlook. The bond rating could mean lower interest rates on bonds on the money borrowed. One the Authority's strategies for deferring rate increases is to minimize the cost of issuing debt.

## 4-2 Return on Assets

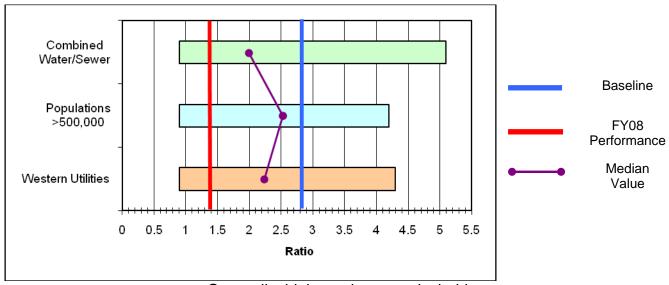
### Performance Results

Measure Type	Purpose	Inputs				Outcome			
	Measure the	Net income and	e and Baseline		Prior Year Actuals Current/Est				Improve the financial
Effectiveness f	financial	total assets	Bacomic	FY06	FY07	FY08	FY09	FY10	health of the
	effectiveness of the Authority		2.8%	4.3%	2.6%	1.4%	1.0%	1.5%	Authority

# **Industry Benchmark**

	Combined astewater			with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
5.1%	2.0%	0.9%	4.2%	2.5%	0.9%	4.3%	2.3%	0.9%

## **Performance Comparison Chart**



Generally, higher values are desirable

#### **Results Narrative**

The return on assets ratio measures how well a utility's management team is doing its job. A comparison of net income and average total assets, the return on assets ratio reveals how much income management has been able to squeeze from each dollar's worth of a utility's assets. Investors and potential investors use this ratio to evaluate a company's leadership. All utilities are interested in their financial health and are particularly sensitive to this measure, seeking higher ratios where possible.

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years but has decreased over the last two fiscal years. There are two main reasons for this decrease. First, the sum of depreciation expense and interest expense increased by \$22.5 million from FY06 to FY08. Depreciation expense as a percentage of net income is far higher than as a percentage of total assets. The interest expense from the borrowing to finance infrastructure also goes up and reduces net income. The sum of those items is a reduction in net income of \$28.7 million. The recently completed \$500 million San Juan Chama Drinking Water Project has had a major impact on depreciation and interest expenses. Second, connection charges revenue declined by \$6.2 million. From 2006 to 2008, building permits for new construction in the Albuquerque metropolitan area decreased by 360%. However, the Authority has maintained a 2% increase in customer accounts during the same time period. This is a result from adding households from developed but unserved areas who were on domestic wells and septic systems to the Authority's water and wastewater system as part of the Valley Utilities Project.

#### 4-3 System Renewal / Replacement Rate

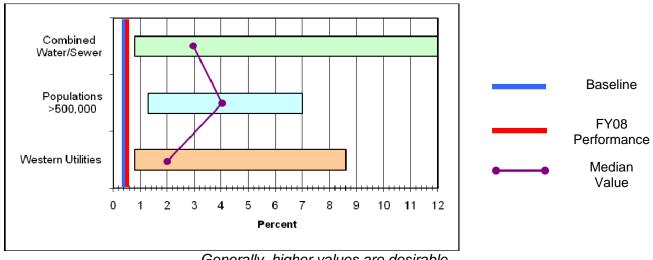
# Performance Results (Water Pipeline & Distribution)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Quantify the rate at	Total actual expenditures	Baseline	Prior	Year Ad	ctuals	Current/Est	Projected	Reduce corrective
	which the Authority	reserved for renewal and	Daseille	FY06	FY07	FY08	FY09	FY10	maintenance by
Effectiveness	is meeting its	replacement and total present worth for renewal and replacement needs for each asset group	0.5%	0.3%	0.5%	0.6%	0.7%	1.0%	investing in infrastructure improvements to the system

## Industry Benchmark

	(	Combined	1	Utilities	with pop	ulations	Utilities located in the			
	Water/W	astewater	<b>Utilities</b>	greate	er than 50	0,000	Weste	rn United	States	
	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	
ĺ	12.0%	2.9%	0.8%	7.0%	4.1%	1.3%	8.6%	2.0%	0.8%	

## Performance Comparison Chart (Water Pipeline & Distribution)



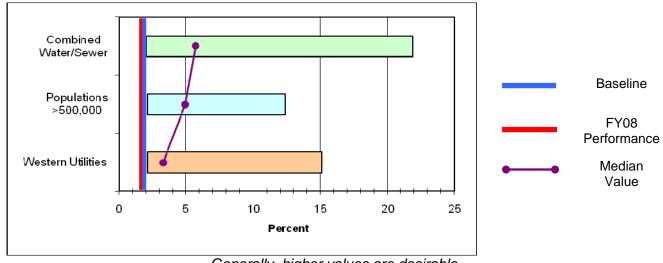
# Performance Results (Water Facility & Pumping)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Quantify the rate	Total actual	Pacalina	Prior Year Actuals (			Current/Est	Projected	Reduce corrective
	at which the	expenditures reserved	Baseline	FY06	FY07	FY08	FY09	FY10	maintenance by
Effectiveness	Authority is meeting its individual need for infrastructure renewal or replacement	for renewal and replacement and total present worth for renewal and replacement needs for each asset group	1.8%	1.5%	2.1%	1.7%	1.8%	2.0%	investing in infrastructure improvements to the system

## Industry Benchmark

	Combined astewater			with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
21.9%	5.4%	2.0%	12.4%	5.0%	2.1%	15.1%	3.4%	2.1%

# Performance Comparison Chart (Water Facility & Pumping)



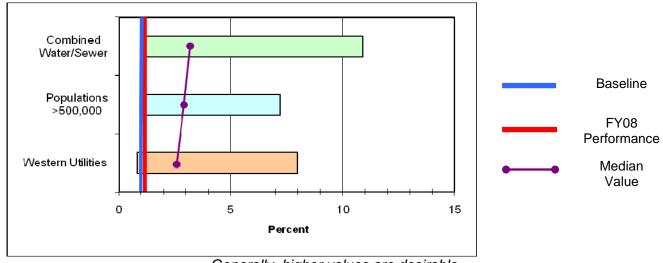
## Performance Results (Wastewater Pipeline & Collection)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Quantify the rate	Total actual	Pacalina	Prior Year Actuals			Current/Est	Projected	Reduce corrective
	at which the	expenditures reserved	Baseline	FY06	FY07	FY08	FY09	FY10 maintenance by	maintenance by
Effectiveness	Authority is meeting its individual need for infrastructure renewal or replacement	for renewal and replacement and total present worth for renewal and replacement needs for each asset group	1.0%	0.8%	1.0%	1.1%	1.2%	1.4%	investing in infrastructure improvements to the system

## **Industry Benchmark**

	Combined astewater			with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
10.9%	3.2%	1.0%	7.2%	2.7%	1.0%	8.0%	2.6%	0.8%

# Performance Comparison Chart (Wastewater Pipeline & Collection)



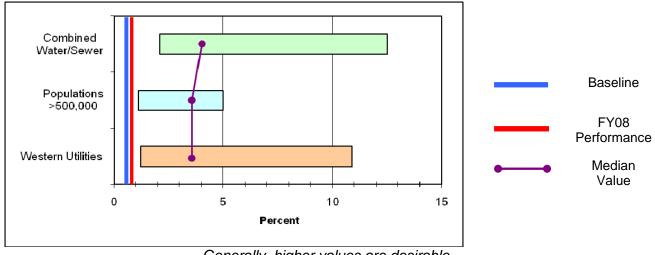
### Performance Results (Wastewater Facility & Pumping)

Measure Type	Purpose	Inputs		Outputs				Outcome	
	Quantify the rate	Total actual	Pasalina	Prior Year Actuals			Current/Est	Projected	Reduce corrective
	at which the	expenditures reserved	Baseline	FY06	FY07	FY08	FY09	FY10	maintenance by
Effectiveness	Authority is meeting its individual need for infrastructure renewal or replacement	for renewal and replacement and total present worth for renewal and replacement needs for each asset group	0.8%	0.8%	0.7%	0.8%	0.9%	1.1%	investing in infrastructure improvements to the system

## **Industry Benchmark**

	(	Combined	i	Utilities	with pop	ulations	Utilities located in the		
Wat	Water/Wastewater Utilities			greater than 500,000			Western United States		
То	q	Median	Bottom	Тор	Modion	Bottom	Тор	Modion	Bottom
Quai	rtile	Wedian	Quartile	i i Median i i i Median i				Quartile	
12.5	5%	4.0%	2.1%	5.0%	3.3%	1.1%	10.9%	3.4%	1.2%

# Performance Comparison Chart (Wastewater Facility & Pumping)



#### **Results Narrative**

This measure quantifies the degree to which a water or wastewater utility is replacing its infrastructure based on target lives for each of two asset groups: (1) water distribution system and treatment and (2) wastewater collection system and treatment. Data for these two asset groups are provided in four categories:

- 1. Water pipeline/distribution
- 2. Water treatment facility and pumping
- 3. Wastewater pipelines and collection
- 4. Wastewater treatment facility and pumping

#### Measurement Status

The Authority's performance in this measure has been below or at the bottom of the median range for the past three fiscal years for water distribution system and treatment and wastewater collection system and treatment. The Authority has increased capital program spending from \$30 million per year to \$40 million per year, including significant increases in planned rehabilitation spending from \$22 million to \$30 million. In addition, The Authority adopted a 100% increase in connection fees in order to generate additional revenue and make more funds available for rehabilitation and replacement. However, the Authority had \$7.2 million in FY06 and \$5.1 million in FY08 in unspent CIP funds. In FY08/FY09, all project managers/engineers have taken Project Management Professional Certification courses to assist them in better managing of CIP projects.

In FY08, the Authority formally established its asset management program and established a Steering Committee to implement the program. The Steering Committee began by conducting an Asset Management Gap Assessment which compares our organization against the industry's 'best practices' in asset management. The Committee's role is to communicate and drive the development and implementation of the asset management program. The Committee's work plan for FY08 and FY09 has included the development of an asset register and hierarchy, an asset management information systems strategy, and a capital project validation process. The Committee is also working on a knowledge management strategy, risk mapping of our assets, setting service levels, and developing an asset management plan. In addition, the Authority will begin upgrading its work order system in a manner that supports asset management business objectives.

#### 2008 Customer Opinion Survey

 84% of customers feel that it is very or somewhat important to invest in the repair and replacement of old water and sewer lines

#### **FY10 Related Objectives**

- Continue implementation of the Comprehensive Asset Management Program to manage existing assets more effectively and plan for future needs; continue development of tools necessary to complete a business case analysis for all CIP projects by the end of the 2nd Quarter; complete a business case analysis for all projects in the decade plan by the end of the 4th Quarter of FY10; complete comprehensive data collection for all assets by the end of the 2nd Quarter; and complete an asset management plan by the end of the 4th Quarter of FY10.
- Expend \$31 million in water and wastewater capital rehabilitation and replacement programs by the end of the 4th Quarter of FY10. \$1 million shall be dedicated and used for identifying steel water pipes in poor condition and rehabilitating or replacing at least 2 miles of pipe by the end of the 4th Quarter of FY10.

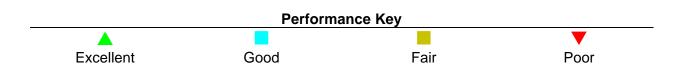
# **Goal 5: Organizational Development**

# **Guiding Goal Statement**

Sustain a well informed, trained, motivated, safe, organized, and competitive work force to effectively meet the expectations of the customers, community, and Board in accordance with adopted policies and mandates.

# **Goal Performance Scorecard**

Performance Measure	Status	Trend
Employee Health and Safety Severity Rate	_	_
Training Hours per Employee		
Customer Accounts per Employee (Water)		
Customer Accounts per Employee (Wastewater)	_	<b>A</b>
MGD Water Delivered		
MGD Wastewater Processed per Employee		
Organizational Best Practices Index		
Overall Goal Status		



# 5-1 Employee Health and Safety Severity Rate

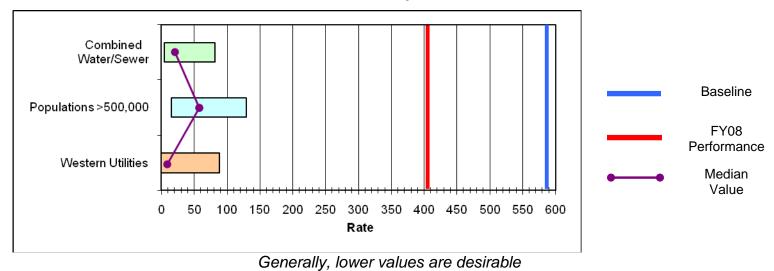
## Performance Results

Measure Type	Purpose	Inputs				Outcome			
	Quantify the rate	Total workdays away	Baseline	Prior Year Actuals			Current/Est	Projected	Improve employee
Effectiveness	of employee days	from work and total hours worked by all	work and total	2006	2007	2008	2009	2010	heath and safety to
LileCliveriess	lost from work due		583	857	485	406	345	293	reduce total
	to illness or injury	employees	303	037	400	406	343	293	workdays from work

# **Industry Benchmark**

	Combined astewater			with pop er than 50			es located rn United	
Top Quartile	Median	Bottom Quartile	Top Quartile	Γορ <sub>Median</sub> Bottom			Median	Bottom Quartile
5.0	21.2	81.4	15.8	74.4	128.9	0.1	21.2	88.1

## **Performance Comparison Chart**



#### **Results Narrative**

The Occupational Safety and Health Administration (OSHA) has established accident and illness recording and reporting requirements that affect most organizations. The OSHA standard is recommended because it has broad applicability and most utilities are already recording the needed data. The OSHA lost-days measure quantifies the rate of days lost due to illness or injury per 100 employee-years of work. It was selected as a good measure for water and wastewater utilities because it summarizes a very useful set of data that is readily available at most utilities.

Excessive lost workdays affect productivity and can cost utilities in a number of ways. Health care, insurance premiums, and overtime can all be adversely impacted by lost work due to injury or health reasons.

#### Measurement Status

The Authority's performance in this measure has been below the median range for the past three fiscal years. In FY06, the Authority adopted a policy objective to improve its performance in this area by developing safe work incentives and routine employee safety training. In FY07, the Authority adopted policy objectives to develop a comprehensive health and safety program and a risk mitigation strategy. Moreover, the Authority adopted a policy objective in FY08 to reduce the number of employee lost days by 25% based on implementing the programs developing in FY06 and FY07.

The second part of this objective is to provide a better Light Duty Program in order to get workers back to the job safely. This new process has provided a clearer understanding on what needs to take place when an injury occurs including the documentation, payroll coding and expectation and assignment of the employee. A \$500 Safety Incentive will be awarded to each employee if the Authority meets the goals in injury lost time hours.

The Authority decreased the number of lost work days by 40% from 2006 to 2007 but only decreased it by 9% from 2007 to 2008. In 2008, injuries increased by 10%. With the Light Duty Program, the Authority may be addressing the severity (lost work days) that result from each injury but are not reducing the frequency/number of injuries. A policy objective in FY10 to reduce the number of employee lost days by another 15% connected with another safety incentive program.

#### FY10 Related Objectives

Reduce the number of employee injury lost days by 15% by the end of the 4th Quarter of FY10.

# 5-2 Training Hours per Employee

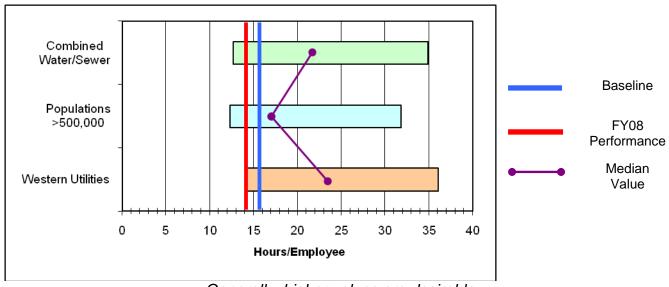
### Performance Results

Measure Type	Purpose	Inputs				Outcome			
	Measure the	Number of formal	Baseline	Prior	Year Ac	tuals	Current/Est	Projected	Improve employee
	quantity of formal	training hours per	Daseille	FY06	FY07	FY08	FY09	FY10	knowledge and skills
Effectiveness	training Authority	employee per year							to maintain a
	employees actually		15.5	17.0	17.0 15.5	14.0	18.0	22.0	motivated and
	completing								effective works force

# Industry Benchmark

	Combined /Wastewater Utilities			Utilities with popul greater than 500			s located	
Top Quartile	Median	Bottom Quartile	Top Quartile	p Median Bottom Top			Median	Bottom Quartile
34.9	22.5	12.7	31.8	16.8	12.3	36.1	23.7	14.1

# **Performance Comparison Chart**



Generally, higher values are desirable

#### **Results Narrative**

This measure is intended to reflect the organization's commitment to formal training as a means of improving employee knowledge and skills. It also does not address the effectiveness or efficiency of the training programs used by the utility.

#### Measurement Status

The Authority's performance in this measure has been within the median range for the past three fiscal years. The Authority adopted policy objective in FY09 to increase certification training hours and by creating an organizational succession plan by implementing hiring, training and certification programs for mechanics, electricians and electronics technicians. There are several policies objectives for FY10 to help improve training for employees. They include: completing the identified certification training courses from the 2009-2010 training calendar; incorporating asset management training, media training, and computer skills training into all areas of the training program.

#### FY10 Related Objectives

- Complete identified certification training courses from the 2009-2010 training calendar through the end of the 4th Quarter of FY10.
- Develop and implement Water Authority new employee orientation program by the end of the 2nd Quarter of FY10.
- Develop performance evaluations based on goals, objectives and performance benchmarks by the end of the 2nd Quarter of FY10.

## 5-3 Customer Accounts per Employee, MGD Water Delivered per Employee, & MGD Wastewater Processed per Employee

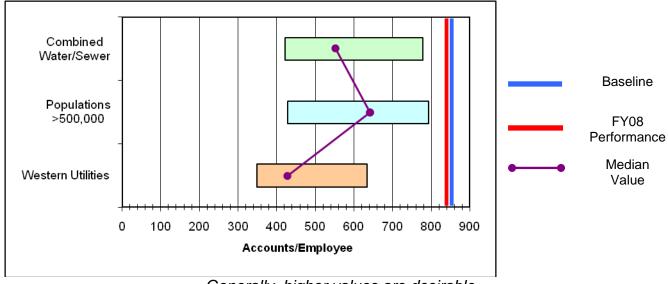
### Performance Results (Customer Water Accounts per Employee)

Measure Type	Purpose	Inputs			Outcome				
	Measure	Number of active accounts	Baseline	Prior Year Actuals			Current/Est	Projected	Provide efficient
	employee	per employee and average	Daseille	FY06	FY07	FY08	FY09	FY10	service to our
Efficiency	efficiency	million gallons of water delivered and processed per day per employee	852	829	879	847	850	875	customers to meet their expectations

### **Industry Benchmark**

	Combined			with pop		Utilities located in the			
Water/W	Water/Wastewater Utilities			greater than 500,000			Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Top Median Bottom Top Median				Bottom Quartile	
778	559	422	794	653	428	635	422	349	

## Performance Comparison Chart (Customer Water Accounts per Employee)



Generally, higher values are desirable

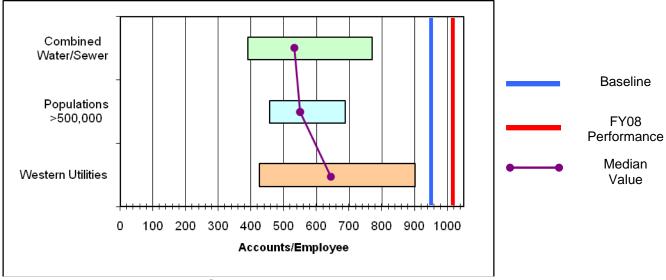
### Performance Results (Customer Wastewater Accounts per Employee)

Measure Type	Purpose	Inputs		Outputs					Outcome
	Measure	Number of active	Pasalina	Prior Year Actuals			Current/Est	Projected	Provide efficient
	employee efficiency	accounts per employee	Baseline	FY06	FY07	FY08	FY09	FY10	service to our
Efficiency		and average million gallons of water delivered and processed per day per employee	951.0	822	1,013	1,018	950	900	customers to meet their expectations

## **Industry Benchmark**

	Combined	l	Utilities	with pop	ulations	Utilities located in the			
Water/W	Water/Wastewater Utilities			greater than 500,000			Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	
771	538	390	688	548	457	901	646	426	

## Performance Comparison Chart (Customer Wastewater Accounts per Employee)



Generally, higher values are desirable

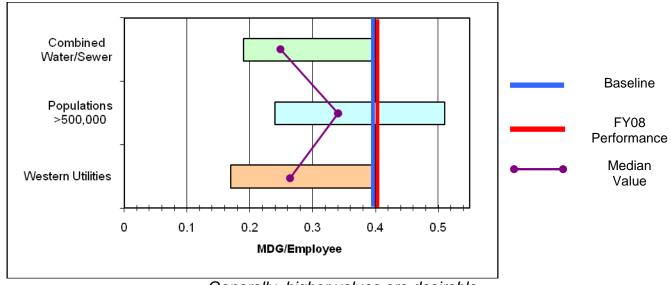
## Performance Results (MGD Water Delivered per Employee)

Measure Type	Purpose	Inputs	Outputs						Outcome
	Measure	Number of active	Pasalina	Prior	Year Ac	tuals	Current/Est	Projected	Provide efficient
	employee accour	accounts per employee	Baseline	FY06	FY07	FY08	FY09	FY10	service to our
Efficiency	efficiency	and average million gallons of water delivered and processed per day per employee	0.40	0.50	0.40	0.40	0.40	0.40	customers to meet their expectations

## **Industry Benchmark**

			with poper than 50		Utilities located in the Western United States			
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
0.40	0.25	0.19	0.51	0.34	0.24	0.40	0.26	0.17

## Performance Comparison Chart (MGD Water Delivered per Employee)



Generally, higher values are desirable

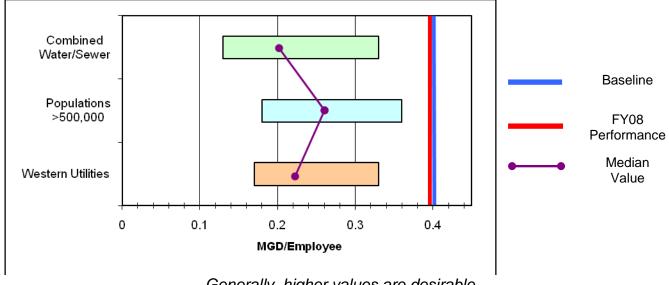
## Performance Results (MGD Wastewater Processed per Employee)

Measure Type	Purpose	Inputs	Outputs					Outcome	
	Measure	Number of active accounts	Baseline	Prior Year Actuals			Current/Est	Projected	Provide efficient
er	employee p	per employee and average	Daseille	FY06	FY07	FY08	FY09	FY10	service to our
Efficiency	efficiency	million gallons of water delivered and processed per day per employee	0.40	0.30	0.35	0.40	0.40	0.35	customers to meet their expectations

## Industry Benchmark

Combined Utilities v Water/Wastewater Utilities greater				with poper than 50		Utilities located in the Western United States		
Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile	Top Quartile	Median	Bottom Quartile
0.33	0.20	0.13	0.36	0.25	0.18	0.33	0.22	0.17

## Performance Comparison Chart (MGD Wastewater Processed per Employee)



Generally, higher values are desirable

#### **Results Narrative**

These measures measure employee efficiency. By expressing them in terms of both accounts and millions of gallons (MGD) per day of water delivered or wastewater processed, the effects of customer class are diminished.

#### Measurement Status

The Authority's performance in this measure has been above the median range for the past three fiscal years for water accounts per employee. The Authority's performance has been within the upper median range for wastewater accounts per employee. It is within the median range millions of gallons per day of water delivered or wastewater processed. It is expected that the Authority will maintain its performance in this area for the next two fiscal years.

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# 5-4 Organizational Best Practices Index

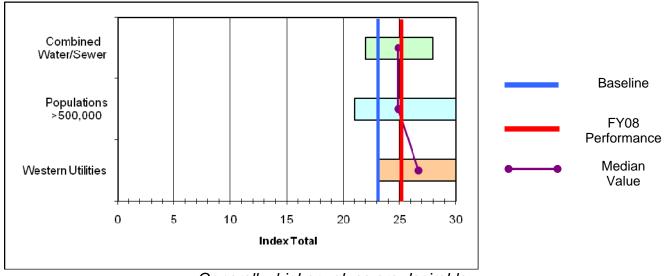
### Performance Results

Measure Type	Purpose	Inputs			Outcome				
	To summarize the	Self-scoring system to	oring system to Baseline		Prior Year Actuals			Projected	Implement best
	Authority's	identify the degree to	Daseille	FY06	FY07	FY08	FY09	FY10	management
Quality	implementation of	which the Authority is		21 22		22 25	25	25	practices to sustain
Quality	management programs	implementing the	23		22				a competitive work
	important to water and	seven organizational	23		25	25	25	force	
	wastewater utilities	best practices	ı						

## **Industry Benchmark**

				with pop		Utilities located in the			
Water/W	Water/Wastewater Utilities greater				0,000	Western United States			
Top	Median	Bottom	Top Median		Bottom	Top	Median	Bottom	
Quartile		Quartile	Quartile		Quartile	Quartile		Quartile	
28	25	22	30	25	21	30	27	23	

# Performance Comparison Range Chart



Generally, higher values are desirable

#### **Results Narrative**

This measure summarizes the status of implementation of good management practices at a utility. It is particularly useful for identifying potential benchmarking partners, especially organizations that may have advanced knowledge and experience with applying these tools. Correlations with other measures might show that performance in other areas is related to investments in improved management practices. The Authority used a self-scoring system to identify the degree to which each of seven important practices being implemented. The scoring system is based on the results from the QualServe Self Assessment that the Authority completed in 2004. Scores for the seven areas are aggregated to provide an index score. The practices included in the index are as follows:

- Strategic planning
- Long-term financial planning
- Risk management planning
- Optimized asset management

- Performance measurement
- Customer involvement
- Customer involvement

#### Measurement Status

The Authority's performance in this measure is within the median range for past three fiscal years. After implementing the areas of improvement suggested in the QualServe Peer Review, it is expected that the Authority will make progress on this measure. This measure is particularly useful for identifying potential benchmarking partners, especially organizations that may have advanced knowledge and experience with applying these tools.

#### **FY10 Related Objectives**

- Continue implementation of succession and knowledge management planning to prepare for the large number of retirements expected in the next five to ten years and to effectively manage the Water Authority's assets through the end of the 4th Quarter of FY10.
- Evaluate centralizing engineering and planning functions throughout the organization by the end of the 2nd Quarter of FY10.
- Implement a phasing plan from the comprehensive classification and compensation study by the end of the 4th Quarter of FY10.
- Maintain a utility-wide vacancy rate of no greater than 9% through FY10.