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# **Anchorage Water and Wastewater Utility**

*Anchorage: Performance. Value. Results.*

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## **Mission**

Supporting the public health, safety, and economic interests of the community by providing quality water and wastewater services in a responsible, efficient, and sustainable manner.

## **Core Services**

- Reliably treat and distribute potable water for domestic, commercial, and firefighting uses throughout the certificated service area.
- Reliably collect, treat and dispose of wastewater in accordance with laws and regulations that protect public health and the environment.

## **Accomplishment Goals**

- Provide reliable service
- Provide safe drinking water that meets or exceeds all standards
- Protect the environment through appropriate wastewater collection, treatment, and disposal.
- Fiscal responsibility and transparency with utility finances.
- Timely, professional, and courteous interactions with customers.
- Rates that fairly reflect the cost of providing service and maintaining infrastructure
- Continuous improvement in the efficiency of our operations
- Anticipate change and be prepared for the future.

## **Performance Measures**

Progress in achieving goals shall be measured by:

1. Compliance with all State and Federal drinking water standards  
/wastewater standards  
/Clean Air Act standards
2. Number of planned and unplanned water outages
3. Sanitary sewer overflows
4. Excavation and maintenance work order backlog
5. Recordable incident rate (as compared to the standard incident rate for water and wastewater utilities)
6. Number of after-hours emergency calls and responses
7. Critical Systems availability
8. Execution of capital improvement budget
9. Debt to equity ratio
10. Service affordability

**Measure #1: Compliance with all State and Federal drinking water, wastewater, and clean air standards**

Compliance with all State and Federal drinking water, wastewater, and clean air standards	Goal	First Quarter 2012	Historical Information	
			2011 Annual	2010 Annual
Safe Drinking Water Act Compliance	100%	100%	100%	100%
Clean Water Act (NPDES permit) Compliance	100%		100%	99.99%
-Asplund		100%		
-Eagle River		99.73%		
-Girdwood		100%		
Clean Air Act Compliance (Asplund Incinerator)	100%	99.98%	99.99%	99.99%

**Measure #2: Number of planned and unplanned water outages**

	Goal (Affected customers per month)	1 <sup>st</sup> Q 2012 (monthly average)	Historical monthly average			
Number of planned and unplanned water outages (customers per month)			2011	2010	2009	2008
Planned Outages						
<4 hours	<20	8	12	11	107	57
4-12 hours	<20	46	23	28	95	68
>12 hours	0	0	0.1	0.2	27	2
Unplanned Outages						
<4 hours	<20	102	35	42	134	92
4-12 hours	<50	91	73	78	154	120
>12 hours	0	0	10	3	41	4

**Measure #3: Sanitary Sewer Overflows**

Sanitary Sewer Overflows (monthly)	Goal	1 <sup>st</sup> Q 2012 (per month)	Historical monthly average			
			2011	2010	2009	2008
Sanitary Sewer Overflows (monthly)	<1.5	2.7	1.7	1.3	1.6	1

**Measure #4: Excavation and Maintenance Work Order Backlog**

	Goal	End of March 2012	End-of-year Values			
			2011	2010	2009	2008
Exc. and Maint. Work Order Backlog	110	135	138	100	117	108

**Measure #5: Number of reportable injuries and accidents**

	Goal	Historical Information			
		2011	2010	2009	2008
Number of reportable injuries and accidents (annual)	<4.60%	4.4%	1.72%	4.10%	4.00%

**Measure #6: Number of after-hours emergency calls and responses**

Number of after-hours emergency calls and responses (month)	Goal	1 <sup>st</sup> Q 2012 monthly average	Monthly Totals			
			Mar 2012	Feb 2012	Jan 2012	Dec 2011
After-hours emergency calls	N/A	156	118	124	227	238
Number of call-out responses	N/A	35	33	32	41	24

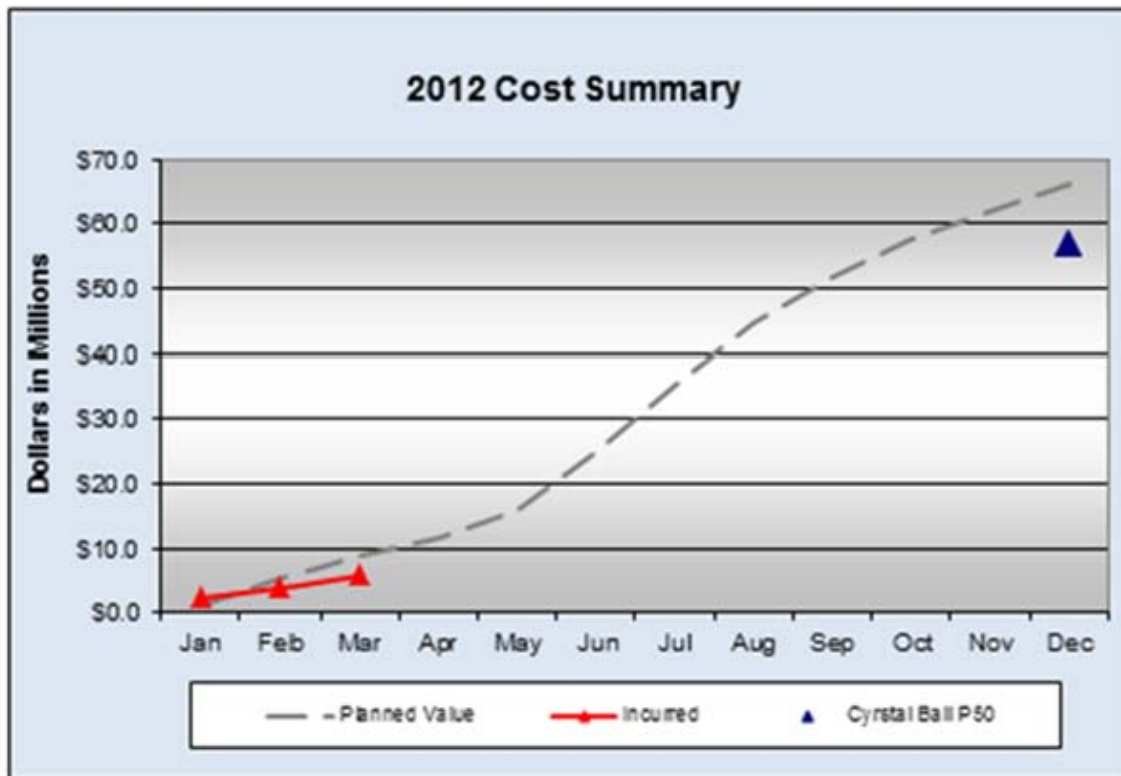
**Measure #7: Critical IT systems availability**

	Goal	1 <sup>st</sup> Quarter 2012	Historical Information			
			Dec 2011	2010	2009	2008
Critical IT systems availability (outages per month)	2	0	0	New metric – no historic data		

#### Measure #8: Execution of Capital Improvement Budget

	Goal	Historical Information			
		2011	2010	2009	2008
Execution of Capital Improvement Budget (annual)	75% (Long term trend)	60%*	75% annual average since 1999		

\*2011 CIB includes nearly \$15 Million for Girdwood WWTF which has been delayed by permitting considerations. Phase I of that work is currently out to bid (February, 2012). The attached figure shows the planned expenditure for 2012.



#### Measure #9: Debt to Equity Ratio

Debt to Equity Ratio (annual)	Goal	2011 (unaudited)	Historical Information		
			2010	2009	2008
Water Utility (2010)	75/25	70/30	70/30	71/29	72/28
Wastewater Utility (2010)	75/25	68/32	69/31	68/32	66/34

**Measure #10: Service Affordability**

			Historical data			
Service Affordability (annual)	Goal	2012	2011	2010	2009	2008
Water Utility	-	0.8	0.7	0.7	0.7	0.6
Wastewater Utility	-	0.6	0.6	0.5	0.5	0.5
Combined	<2.0	1.4	1.3	1.2	1.2	1.1

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #1: Compliance with all State and Federal drinking water, wastewater, and clean air standards</b>
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**Type**

Effectiveness

**Accomplishment Goals Supported**

- Provide reliable service
- Provide safe drinking water that meets or exceeds all standards
- Protect the environment through appropriate wastewater collection, treatment, and disposal.

**Definition**

Number of required regulatory measurements indicating conditions are out of compliance with current standards, divided by total number of required regulatory compliance points for the time period. If measurements are taken daily, but the data are averaged for comparison to a standard on a weekly basis, only the weekly report constitutes a compliance point. If separate standards exist for monthly and weekly averages, they are distinct compliance points.

**Data Collection Method**

All samples collected are compared with the State or Federal regulatory standards and any violations are noted and reported in accordance with permit stipulations.

**Frequency**

The percent compliance measurement will be calculated quarterly, using running totals for the calendar year.

**Measured By**

The Treatment Division will prepare a report from the water quality and laboratory databases that identifies any samples or reportable incidents that do not meet regulatory standards.

**Reporting**

The Treatment Division Director will update the report quarterly from the water quality and laboratory databases. The information will be displayed in tabular form.

**Used By**

The Treatment Division Director and General Manager will use the information to gain a clearer understanding of performance of AWWU's treatment facilities and determine if changes in system operation or maintenance are required.

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #2: Number of planned and unplanned water outages</b>
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**Type**

Effectiveness

**Accomplishment Goal Supported**

- Provide reliable service
- Provide safe drinking water that meets or exceeds all standards
- Protect the environment through appropriate wastewater collection, treatment, and disposal.
- Timely, professional, and courteous interactions with customers.
- Continuous improvement in the efficiency of our operations
- Anticipate change and be prepared for the future

**Definition**

A water outage is defined as a disruption in service to a service connection. A service connection serves one customer, although multiple people may be affected by the disruption in service to a residence or a business.

**Data Collection Method**

A tally is kept through each calendar month of the number of customers who experience planned and unplanned water service disruptions for a range of durations listed below. The outage is as reported to AWWU and confirmed by observation or analysis in the field.

**Frequency**

The measurement will be recorded at the beginning of each month for the preceding month.

**Measured By**

Number of customers who do not have water service for the following durations:

- Less than 4 hours
- Between 4 hours and 12 hours
- Greater than 12 hours

Disruptions are counted for planned activities (customers are given advance notice in writing) and unplanned (emergency) activities.

**Reporting**

The Strategic Asset Services Section will create a monthly report that will show water outages numerically and graphically.

**Used By**

The O&M Division, Customer Service Division, and Strategic Asset Services Section and the General Manager will review these data monthly to evaluate adequacy of operation and maintenance approaches, customer service response and pipe condition.

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #3: Sanitary Sewer Overflows</b>
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**Type**

Effectiveness

**Accomplishment Goals Supported**

- Provide reliable service.
- Timely, professional, and courteous interactions with customers.
- Protect the environment through appropriate wastewater collection, treatment, and disposal.
- Continuous improvement in the efficiency of our operations
- Anticipate change and be prepared for the future.

**Definition**

Total number of wastewater overflows onto the ground or wastewater back-ups into customer residences if caused by an obstruction in an AWWU sewer main, manhole, or cleanout. Overflows or backups that occur due to on-property blockages do not count.

**Data Collection Method**

The reportable number of sanitary sewer overflows is what is reported in writing to the EPA Region X office within a week of each occurrence.

**Frequency**

The measurement will be recorded each month for the previous month.

**Measured By**

Data collection is by direct observation by AWWU staff.

**Reporting**

The O&M Division will create a monthly report displaying overflow data numerically and graphically.

**Used By**

The O&M Division, Customer Service Division, and Strategic Asset Services Section and the General Manager will review these data monthly to evaluate adequacy of operation and maintenance approaches, customer service response and pipe condition.



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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #4: Excavation and Maintenance Work Order Backlog</b>
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**Type**

Effectiveness

**Accomplishment Goal Supported**

- Provide reliable service.
- Provide safe drinking water that meets or exceeds all standards.
- Protect the environment through appropriate wastewater collection, treatment, and disposal.
- Timely, professional, and courteous interactions with customers.
- Continuous improvement in the efficiency of our operations
- Anticipate change and be prepared for the future.

**Definition**

Total number of physical problems with horizontal plant (water mains, valves, service lines, key boxes, sewer mains, manholes, or cleanouts) requiring an excavation to repair or replace the respective asset.

**Data Collection Method**

The O&M Division maintains a list of prospective excavation projects.

**Frequency**

The number of projects in the current backlog will be recorded quarterly.

**Measured By**

Number of Maximo excavation work orders in "Approved" status at the end of the reporting period.

**Reporting**

The O&M Division will create a quarterly report displaying overflow data numerically and graphically.

**Used By**

The O&M Division, Customer Service Division, and Strategic Asset Services Section and the General Manager will review these data monthly to evaluate adequacy of operation and maintenance approaches and staffing levels, customer service response and pipe condition.

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #5: Number of reportable injuries and accidents</b>
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**Type**

Effectiveness

**Accomplishment Goal Supported**

- Provide reliable service
- Continuous improvement in the efficiency of our operations
- Anticipate change and be prepared for the future.

**Definition**

Number of OSHA recordable incidents multiplied by 200,000 (# defined by OSHA as 100 employees working full-time for a year) divided by number of hours worked by all employees. Compare Recordable incident rate to standard industrial rate (SIR) for water and wastewater utilities.

**Data Collection Method**

Accident and near-miss reports

**Frequency**

Beginning of each month

**Measured By**

Safety Program Manager, Employee Services Division.

**Reporting**

The Employee Services Division will maintain an accident and near miss report on a monthly basis. Data will be compiled, summarized, and reported annually.

**Used By**

The Safety Manager, all Division Directors and the General Manager will use the report to monitor and adjust working practices and focus training and attention to hazardous situations.

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #6: Number of after-hours emergency calls and responses</b>
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**Type**

Effectiveness

**Accomplishment Goal Supported**

- Provide reliable service
- Timely, professional, and courteous interactions with customers.
- Continuous improvement in the efficiency of our operations
- Anticipate change and be prepared for the future.

**Definition**

Calls received at the Eklutna Water Treatment facility, outside of normal work hours which require a call-out response from an AWWU First Responder.

**Data Collection Method**

Track total number of calls received after hours and number of calls requiring a call-out response, as documented on the After-hours Callout log each month.

**Frequency**

The measurement will be performed at the beginning of each month.

**Measured By**

The Treatment Division will prepare a report each month from the After-hours Callout log outlining the number and type of calls by industry standards (water break, sewer plug, broken hydrant, customer request, etc.)

**Reporting**

The Treatment Division will create and maintain a monthly report in tabular form. As this is a new metric, no goal has been established.

**Used By**

The Treatment Division, O&M Division, Customer Service Division, Strategic Asset Services Section and the General Manager will review this data annually to assess customer response and proper system operations and maintenance.

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #7: Critical IT systems availability</b>
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**Type**

Effectiveness

**Accomplishment Goal Supported**

- Provide reliable service
- Provide safe drinking water that meets or exceeds all standards
- Protect the environment through appropriate wastewater collection, treatment, and disposal.
- Continuous improvement in the efficiency of our operations
- Anticipate change and be prepared for the future.

**Definition**

Measure effectiveness of IT System & Network Support on production systems. Success will be determined by counting the number of preventable outages affecting multiple users compiled on a monthly basis.

**Data Collection Method**

Outages will be monitored by the IT Division and recorded on an IT log register.

**Frequency**

Outages will be recorded at the beginning of each month for the preceding month.

**Measured By**

Data will be compiled by the IT Help Desk based on reported and verified system outages.

**Reporting**

The IT Division will create and maintain a monthly report in tabular form.

**Used By**

The IT Division Director and the management team will use the report to monitor and adjust IT support services and evaluate effectiveness of IT services.

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #8: Execution of Capital Improvement Budget</b>
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**Type**

Efficiency

**Accomplishment Goal Supported**

- Provide reliable service
- Fiscal responsibility and transparency with utility finances.
- Rates that fairly reflect the cost of providing service and maintaining infrastructure
- Continuous improvement in the efficiency of our operations
- Anticipate change and be prepared for the future.

**Definition**

The ratio (as a percent) of capital project dollars expended through the fiscal year divided by the planned expenditure for the year as indicated in the approved Capital Improvement Budget.

**Data Collection Method**

Project Managers input % complete data and expected completion dates for each project named in the capital improvement budget.

**Frequency**

Estimates of the completeness (% complete) of all ongoing projects will be reported through the AWWU Engineering Division Project Management group annually.

**Measured By**

The Engineering Division will keep track of this information using the ERP tracking and reporting system.

**Reporting**

The information will be displayed numerically and graphically in monthly reports.

**Used By**

The Engineering Director and General Manager will use this data to gauge progress on use of capital project funds.

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #9: Debt to Equity Ratio</b>
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**Type**

Effectiveness

**Accomplishment Goal Supported**

- Fiscal responsibility and transparency with utility finances.
- Anticipate change and be prepared for the future.

**Definition**

The relative percentages of assets that are funded by debt and equity, respectively. The total of debt funding and equity funding equals 100%.

**Data Collection Method**

The calculation is performed by comparing debt and equity to assets annually.

**Frequency**

The measurement will be calculated annually upon completion of the Utility's audited financial statement.

**Measured By**

The Finance Division will calculate this ratio from financial statement data.

**Reporting**

The Finance Division manager will create and maintain an annual report. Trend information will be displayed in a table.

**Used By**

The information will be used by the Finance Division Director, General Manager, Board and Administration to help evaluate debt financing levels.

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**Performance Measure Methodology Sheet**  
**Anchorage Water and Wastewater Utility**

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<b>Measure #10: Service Affordability</b>
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**Type**

Efficiency

**Accomplishment Goal Supported**

- Rates that fairly reflect the cost of providing service and maintaining infrastructure while remaining affordable.
- Continuous improvement in the efficiency of our operations.
- Anticipate change and be prepared for the future.

**Definition**

Ratio of the annualized single family residential water and sewer bill to the median annual household income.

**Data Collection Method**

Annualized single family bill is the combined monthly residential water and sewer bill times 12; median annual household income is as reported by the U.S. Census Bureau.

**Frequency**

The measurement will be performed annually as new rates are implemented.

**Measured By**

The calculation will be prepared and reported by the Finance Division.

**Reporting**

The Finance Division manager will calculate the index annually or whenever a rate change takes effect.

**Used By**

The results will be used by AWWU management, the Board, the Administration and the public as a measure of service affordability.