# **Anchorage Water and Wastewater Utility**

Anchorage: Performance. Value. Results.

#### 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:

- 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

			Historical Information		
Compliance with all State and Federal drinking water, wastewater, and clean air standards	Goal	Dec-11	2011 Annual	2010 Annual	
Safe Drinking Water Act Compliance	100%	100%	100%	100%	
Clean Water Act (NPDES permit) Compliance	100%	100%	100%	99.99%	
Clean Air Act Compliance (Asplund Incinerator)	100%	100%	99.99%	99.99%	

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

		Historical monthly average				
Number of planned and unplanned water outages	Goal (Affected customers per month)	Dec-11	2011 Annual	2010	2009	2008
Planned Outages						
<4 hours	<20	4	12	12	108	58
4-12 hours	<20	287	25	28	101	70
>12 hours	0	0	.08	0.25	30	3
Unplanned Outages						
<4 hours	<20	34	23	31	30	36
4-12 hours	<50	292	52	52	59	54
>12 hours	0	0	9	4	15	0.25

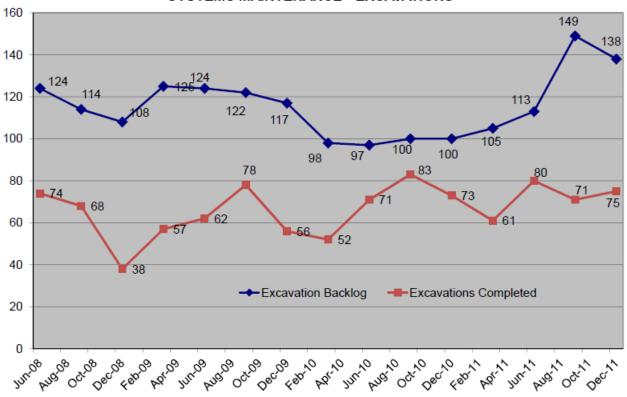
# **Measure #3:** Sanitary Sewer Overflows

			Historical monthly average			ige
	Goal	Dec-11	2011 Annual	2010	2009	2008
Sanitary Sewer Overflows	<1.5	5 overflows	1.7	1.3	1.6	1

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

			Historical End-of-yea Values		of-year
	Goal	Dec-11	2010	2009	2008
Excavation and Maintenance Work Order Backlog	110	138 excavations	100	117	108

# SYSTEMS MAINTENANCE - EXCAVATIONS



# Measure #5: Number of reportable injuries and accidents

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

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

			Historical Information				
Number of after-hours emergency calls and responses (month)	Goal	Dec-11	2011	2010	2009	2008	
After-hours emergency calls (tracking metric only - no goal established)	N/A	238 calls	New metric - no historical data				
Number of required call-out responses (tracking metric only - no goal established)	N/A	24 call- outs	New metric - no historica data			rical	

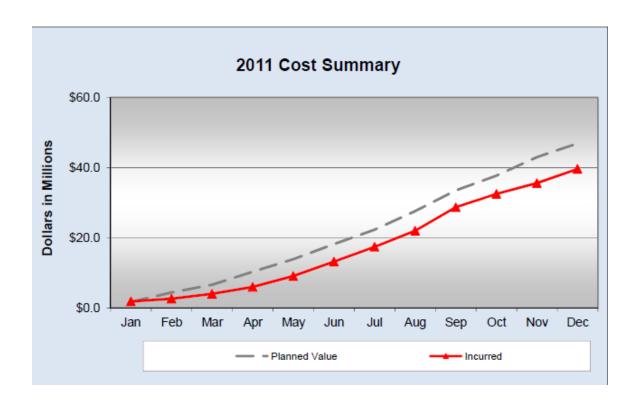
# Measure 7: Critical IT systems availability

			Historical Information			ion
	Goal	Dec-11	2011 Annual	2010	2009	2008
Critical IT systems availability (outages per month)	2	0 outages	New metric - no historical data			

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

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

\*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 adjusted planned expenditure for 2011, without the allocation for Girdwood in the total.



# Measure #9: Debt to Equity Ratio

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

# Measure #10: Service Affordability

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

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

# **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 measurements taken over the time period.

#### **Data Collection Method**

All samples collected each month are compared with the State or Federal regulatory standards and any violations are noted and reported.

# Frequency

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

# **Measured By**

The Treatment Division will prepare a report each month 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 create and maintain a monthly and annual report 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.

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

# **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 be 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.

# Measure #3: Sanitary Sewer Overflows (monthly)

## **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.

# Measure #4: Excavation and Maintenance Work Order Backlog

## 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.

# Measure #5: Number of reportable injuries and accidents

# **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.

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

# 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**

Total number of calls requiring a call-out reported to AWWU and documented within 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.

#### **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.

# Measure #7: Critical IT systems availability

# **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.

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

# 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.

### Measure #9: Debt to Equity Ratio

#### **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.

# Measure #10: Service Affordability

#### 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.