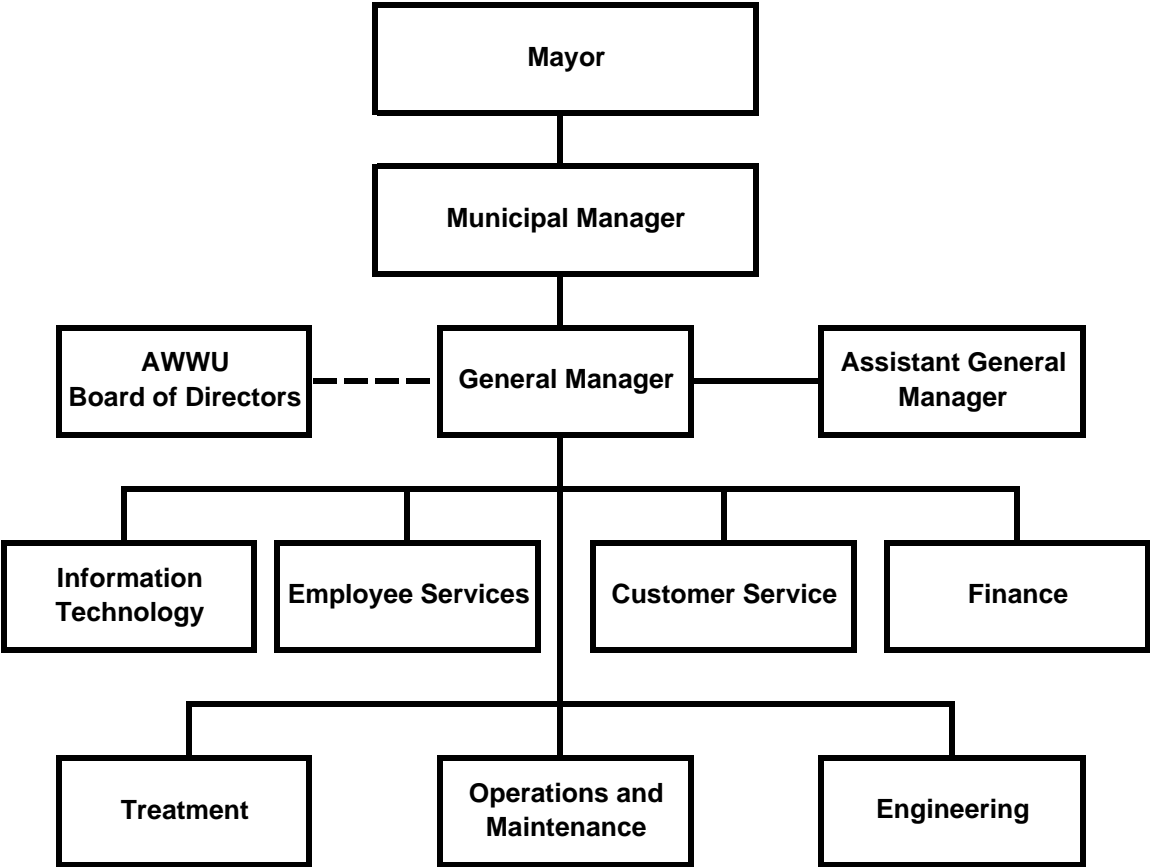


# Anchorage Water & Wastewater Utility



## **Anchorage Water and Wastewater Organizational Overview**

### **Overview**

The Anchorage Water and Wastewater Utility (AWWU) is the largest water and wastewater utility in Alaska. AWWU currently serves the Municipality of Anchorage extending from Eklutna to as far south as Girdwood. Although they share one workforce, AWWU operates as two separate economic and regulated entities: the Anchorage Water Utility (AWU) and the Anchorage Wastewater Utility (ASU).

### **System Description**

To provide water and sewer services, AWWU owns and operates five Treatment Facilities (2 water and 3 wastewater), over 1,600 miles of pipe, and over 325,000 square feet of facility space distributed throughout the Municipality. The certificated water service area covers 130.4 square miles in three distinct geographic areas, Northern Communities, the Anchorage Bowl, and Girdwood Valley. Estimates place the water service population at approximately 240,000 people via nearly 55,000 customer accounts. The certificated sewer service area is larger, encompassing nearly all of the Municipality. ASU currently provides sewer service to approximately 250,000 people via approximately 56,000 customer accounts. Additionally, AWWU receives septage pumped from on-site wastewater systems on lots in areas not directly connected to the sewer system.

AWU's three sources of water are Eklutna Lake, Ship Creek, and groundwater accessed through a system of wells in the Northern Communities, the Anchorage Bowl, and Girdwood Valley. Eklutna Water Treatment Facility (WTF) and the wells which supply Girdwood are operated year-round and serve as the primary supply sources for the Anchorage and Girdwood water systems. The Ship Creek Water Treatment Facility and the remainder of the water wells are used to augment the primary water supply, mainly in times of peak demand, as well as provide redundancy to the Eklutna source for Eagle River and the Anchorage Bowl. Of these sources, the Eklutna Water Treatment Facility now provides approximately 90% of total water production for the Northern Communities/Eagle River and the Anchorage Bowl. In Girdwood, where system demand constitutes less than 2 percent of AWWU's total water production, all water produced and distributed is from two municipally-owned and managed wells.

ASU operates three wastewater treatment facilities to treat wastewater collected in three geographically separate but commonly managed sewer systems. The largest of these is the John M. Asplund Wastewater Treatment Facility (WWTF) located at Point Woronzof. The Asplund WWTF was constructed in the early 1970's when Anchorage eliminated direct ocean discharges. It services the wastewater treatment needs of the Anchorage Bowl. The Asplund facility has received silver, gold, and platinum awards from the National Association of Clean Water Agencies for efficiency and environmental compliance. ASU is continually at work to maintain and enhance the facility. Currently, work is underway to replace the aging chlorine gas disinfection system with the modern technology of on-site hypochlorite generation for disinfection. The Asplund facility operates in accordance with a National Pollution Discharge Elimination System (NPDES) permit administered by the U.S. Environmental Protection Agency (EPA). The permit, which expired in 2005 but has been administratively extended by EPA, allows discharge of effluent receiving primary treatment, in accordance with Section 301(h) of the Clean Water Act.

The Eagle River WWTF was originally built in the 1960's and upgraded several times. It services the public wastewater treatment and disposal needs within Eagle River and Chugiak. The Eagle River facility provides biological secondary treatment and discharges treated effluent to Eagle River in accordance with a permit recently reauthorized by the Alaska Department of Environmental Conservation (ADEC), which has assumed primacy over wastewater discharge permits from the EPA.

The third facility is Girdwood WWTF. It was originally constructed in the 1970's and also has undergone several process modifications and upgrades. The Girdwood facility provides biological secondary treatment and discharges treated effluent to Glacier Creek under an administratively extended NPDES permit administered by the ADEC. The core facility is now at the end of its useful life. Phase 1 of plant replacement and upgrades was completed in 2014. Phase 2 of the plant replacement and upgrade is being planned to conform to discharge requirements of a new permit.

Over the past two decades, investments in physical infrastructure have resulted in an increase in the value of AWU. From 1990 to present, plant in service has increased by 114% from \$355.2 million to \$761.6 million. This growth is primarily a result of an increasing amount of investment in transmission and distribution assets (pipelines), with lesser investments in general plant assets (e.g., structures and intangible assets).

From 1990 to present, ASU's plant in service has increased by 101% from \$301.5 million to \$606.5 million. This growth is primarily a result of an increasing investment in sewer collection pipeline network, followed by upgrades in sewer treatment facilities, and modest investment in pumping plant (sewage lift or pump stations), general plant (structures), and intangible assets.

### **Organization**

AWWU is organized into 7 divisions. The General Manager's office is responsible for overall operation of AWWU. The Engineering Division is responsible for development and execution of AWWU's capital program and for system planning. The Treatment Division is responsible for day-to-day operation of the treatment facilities and water distribution system and for maintaining compliance with all state and federal regulations. The Operations and Maintenance (O&M) Division maintains the treatment facilities and repairs all water and sewer piping and lift stations. The O&M Division also operates the wastewater collection system and is responsible for AWWU's SCADA system. The Customer Service Division is responsible for responding to customer inquiries, billing and collections for both utilities, issuing of permits, and field service functions. The Information Technology Division provides support for all of AWWU's computers, network, and software systems. The Administrative Services Division provides for training, safety, and internal and external communications. The Finance Division is responsible for all general ledger and plant accounting, preparation of utility budgets and financial statements, and regulatory filings.

## **Anchorage Water and Wastewater Utility Business Plan**

### **Vision**

Excellence through innovation.

### **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.

### **Services**

The Anchorage Water and Wastewater Utility (AWWU) is the largest water and wastewater utility in Alaska. AWWU currently serves the Municipality of Anchorage extending from Eklutna to as far south as Girdwood. Although they share one workforce, AWWU operates as two separate economic and regulated entities: the Anchorage Water Utility (AWU) and the Anchorage Wastewater Utility (ASU).

### **Business Goals**

AWWU's strategic plan for 2014-2016, as recommended by the Utility Board of Directors on August 6, 2014, calls for the focus on the following goals:

- Build a customer relationship that recognizes and advocates for our core purpose.
- Enhance focus on environmental compliance.
- Provide robust infrastructure that meets customer needs.
- Maintain fair and affordable rates.
- Make sound business decisions.
- Improve human capital management.
- Develop a knowledge management strategy plan.
- Become hazard response ready.
- Ensure effective organizational communication.

### **Commitments to Customers**

AWWU has identified the following customer commitments which represent the outcomes or accomplishments of the Utilities' activities as viewed by the customer:

1. Provide safe drinking water that meets or exceeds all standards.
2. Protect the environment through appropriate wastewater collection, treatment, and disposal.
3. Provide reliable service.
4. Have timely, professional, and courteous interactions with customers.
5. Manage finances responsibly and transparently.
6. Set rates that fairly reflect the cost of providing service and maintaining infrastructure.
7. Deliver services affordably to promote a strong Anchorage economy.
8. Invest wisely to minimize risk and maintain service levels.
9. Continuously improve the efficiency of our operations.
10. Anticipate change and prepare for the future.

### **Performance Measures to Track Progress in Achieving Goals**

AWWU measures progress in achieving these customer commitments using quantifiable performance measures, including the following:

1. Compliance with all State and Federal drinking water, wastewater and air standards
2. Number of planned and unplanned water outages

3. Sanitary sewer overflows
4. Recordable incident rate (of lost-time injuries and accidents)
5. Execution of capital improvement budget
6. Debt to equity ratio

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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. Recordable incident rate (as compared to the standard incident rate for water and wastewater utilities)
5. Execution of capital improvement budget
6. Debt to equity ratio

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

	Goal	2014				Past Years			
		Q4	Q3	Q2	Q1	2013	2012	2011	2010
Safe Drinking Water Act Compliance	100%			100%	100%	100%	100%	100%	100%
Clean Water Act (NPDES permit) Compliance	100%							100%	99.99%
-Asplund				100%	100%	99.8%	100%		
-Eagle River				100%	100%	100%	99.5%		
-Girdwood				100%	100%	99.3%	97.5%		
Clean Air Act Compliance (Asplund Incinerator)	100%			100%	100%	99.998%	99.99%	99.99%	99.99%

**Measure #2: Number of planned and unplanned water outages (customers per month)**

	Goal	2014				Historical monthly average			
		Q4	Q3	Q2	Q1	2013	2012	2011	2010
<b>Planned Outages</b>									
<4 hours	<20			48	0	25	18	12	12
4-12 hours	<20			40	0	86	47	23	28
>12 hours	0			1	0.3	0.3	0.2	0.1	0.2
<b>Unplanned Outages</b>									
<4 hours	<20			59	13	27	46	23	30
4-12 hours	<50			36	34	33	38	51	50
>12 hours	0			0	0.7	8	4	9	3

**Measure #3: Sanitary Sewer Overflows (monthly)**

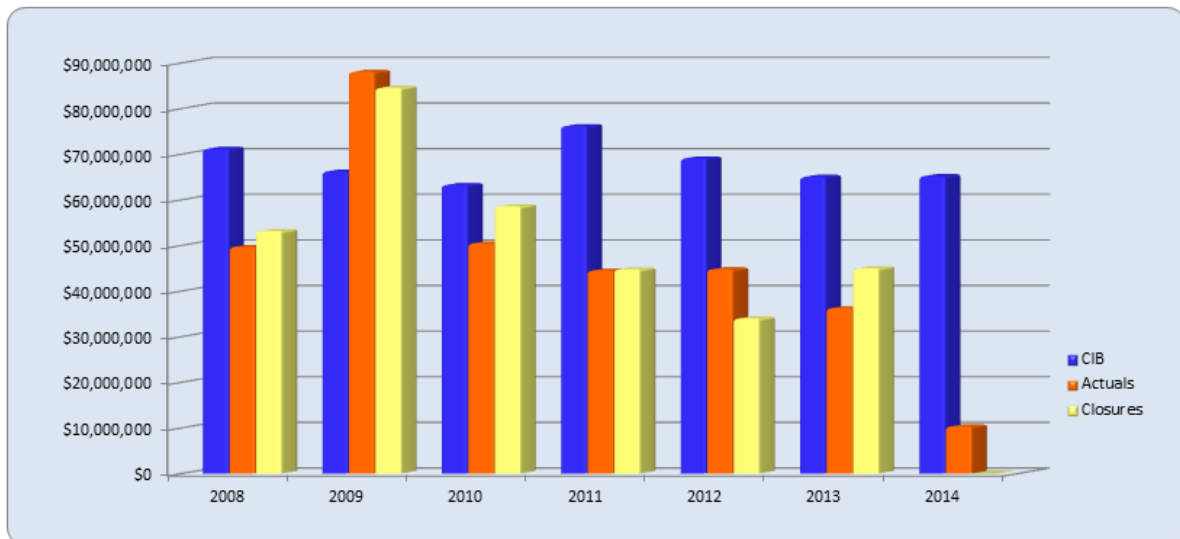
	Goal	2014				Historical monthly average					
		Q4	Q3	Q2	Q1	2013	2012	2011	2010	2009	2008
	<1.5			2.33	2.00	2.25	1.83	1.91	1.33	1.58	1

**Measure #4: Number of reportable injuries and accidents (annual)**

	Goal	Historical Information					
		2013	2012	2011	2010	2009	2008
	<4.60	3.06	5.2	4.4	1.72	4.10	4.00

**Measure #5: Execution of Capital Improvement Budget (annual)**

	Goal	Historical Information					
		2013	2012	2011	2010	2009	2008
	75%	56%	65%	61%	66%	129%	67%





Through 2<sup>nd</sup> Quarter 2014**Measure #6: Debt to Equity Ratio (annual)**

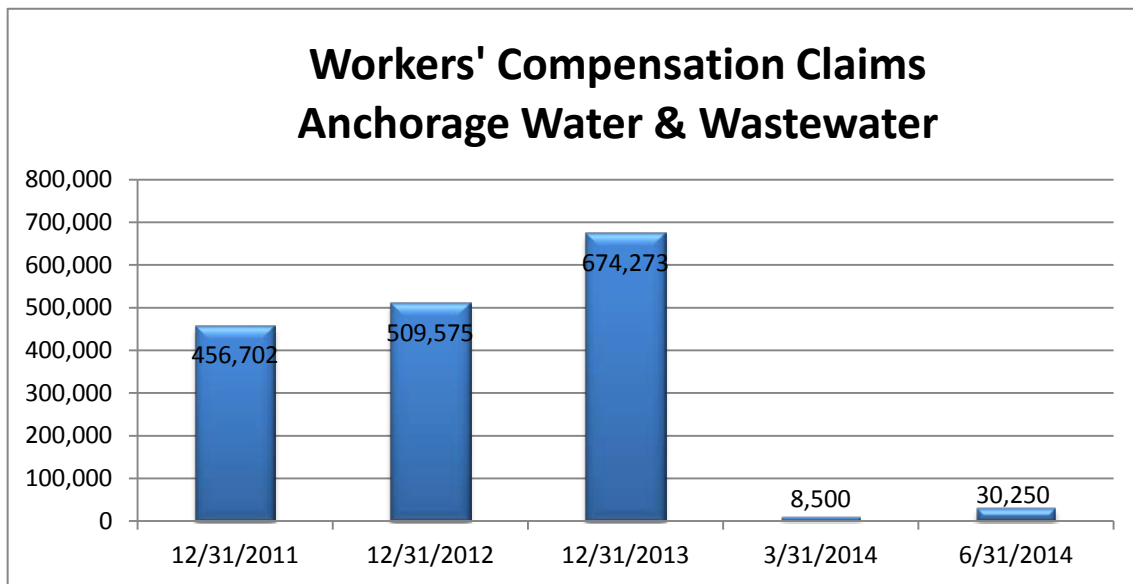
	Goal	2014	Historical Information					
			2013	2012	2011	2010	2009	2008
Water Utility	67/33	NA	65/35	67/33	70/30	70/30	71/29	72/28
Wastewater Utility	67/33	NA	67/33	66/34	68/32	69/31	68/32	66/34

NA – Numbers not available until end of year accounting is complete.

**PVR Measure WC: Managing Workers' Compensation Claims**

Reducing job-related injuries is a priority for the Administration by ensuring safe work conditions and safe practices. By instilling safe work practices we ensure not only the safety of our employees but reduce the potential for injuries and property damage to the public. The Municipality is self-insured and every injury poses a financial burden on the public and the injured worker's family. It just makes good sense to WORK SAFE.

Results are tracked by monitoring monthly reports issued by the Risk Management Division.



No data for second quarter of 2013, changing to a new record keeping system

## **Anchorage Water and Wastewater Highlights and Future Events**

### **Aging Infrastructure**

At the current time, AWWU provides best-in-class service as measured against industry benchmarks such as drinking water compliance rate, water quality complaints, water pipeline breaks, unplanned service disruptions, compliance with discharge permits, collection system failures, and sewer overflows. However, the infrastructure required to provide water and sewer service is aging and will require significant annual capital investments to maintain service levels.

In aggregate, AWU's physical assets are considered to have about one-half of their useful lives consumed. The water transmission and distribution system pipe network consists of 839.7 miles of pipe, has a weighted average age of over 35 years. Other AWU assets including treatment facilities, reservoirs, wells, booster stations, and major valve vaults are of varying age, but in aggregate, have reached just over one-half of their useful lives and have undergone or have been scheduled for major re-investment over the next 5-10 years.

ASU's sewer pipe network consists of 754 miles of pipe and has a weighted average age of 36 years, again reflecting just over one-half of the estimated useful lives of pipe and approximately three-fifths of the estimated useful lives of other sewer plant. Unlike the water system however, some treatment facility assets are new. Within the Anchorage Bowl, more than \$40 million of treatment plant investment occurred over the past decade, much of that for new assets (e.g., new headworks, solids handling, building improvements and liquid process improvements) at the Asplund WWTF. In Eagle River, new process improvements and support systems (UV disinfection, mechanical and HVAC systems) worth over \$3 million were built over the last five years. The exception is the Girdwood WWTF, which is now over 30 years old and reaching the end of its useful life as documented by multiple studies performed since 2006.

AWWU has implemented a state-of-the-art asset management program to manage the Utility's aging infrastructure. The primary components of AWWU's asset management program include:

- Risk based approach that categorizes AWWU's assets and evaluates each asset's class on the basis of consequence and likelihood of failure.
- Robust analysis of system performance and maintenance data to predict service lives of different asset classes.
- Business case analysis of major projects to determine lowest overall lifecycle costs.
- Use of state-of-the-art repair and rehabilitation technologies to reduce service disruption and reduce costs.
- Condition assessment monitoring and evaluation using both AWWU staff and specialized contractors.

### **Limited Customer Growth**

The Anchorage economy and land-use development patterns and restrictions are such that AWWU does not anticipate significant customer growth rate for the foreseeable future. AWWU's water master plan projects a customer growth rate of approximately 0.3% per year for the next 25 years. Limited customer growth represents a significant challenge for AWWU because there are few new customers to help cover the cost of maintaining infrastructure. Exacerbating the lack of customer growth is the repair and replacement of contributed plant. In the 1990's, over 70% of the plant in-service was contributed (i.e., given to AWWU or paid for by grants). Today that percentage is about 50% and decreasing steadily. Contributed plant is not included in rates for calculating depreciation costs and earning a return. However, repair and replacement of this considerable portion of our plant-in-service must be borne wholly by customers. With a very slow growth of the customer base, cost of this repair and replacement will increase over time for each customer.

There is very little AWWU can do to encourage significant customer growth without major changes in policy and community desires. Most of AWWU's customer growth will come from redevelopment of existing properties in the MOA and limited infill. Redevelopment and infill must comply with current codes and utility tariffs, which may require upgrades to existing utility service.

### **Aging Workforce**

AWWU is typical of the industry in that we have an aging workforce. Over half of AWWU's workforce is 45 years old or more. Many of these individuals can be expected to retire in the next few years. Many of these individuals are the experienced and licensed professionals required to operate AWWU's facilities in compliance with Alaska regulations. Alaska's oil industry and the boom in oil and gas development in the lower 48 represents a significant threat to retaining water and wastewater professionals. The oil industry typically pays significantly higher wages than AWWU.

AWWU is working with Plumbers & Pipefitters Union Local 367 to develop an apprentice program to provide more workers. AWWU also has a long history of working with the Alaska Job Corp and various universities to bring new entrants into the industry. And while these programs will help, AWWU expects to be under severe pressure for the next several years as senior staff members retire. AWWU has no realistic option to fill these vacancies except primarily through in-house training programs.

## Debt

At the end of 2013, AWWU was carrying approximately \$375 million in total net debt. AWWU can easily service this debt and the Utility maintains healthy operating margins and debt service coverage ratios. However, compared to peer utilities, AWWU has a significant amount of debt and finances much less of its capital program with equity.

Two major factors have contributed to AWWU's current debt/equity position. First, during the 1990's, AWWU did not have rate increases and had a very modest capital improvement budget (CIB). During these years, reductions in workforce levels and improvements in worker productivity as a result of investments in appropriate technology allowed the Utility to operate effectively, but not accumulate equity.

Second, AWWU has historically asked for less in rates than justified by revenue requirement studies. And while limiting rate increase requests has mitigated the impact on customers, historic under-recovery in rates has not allowed AWWU to accumulate equity and as a result, more of the Utility's capital program must be financed through debt.

Rate Increases Calculated, Requested and Approved  
AWWU 2004 - 2014

Rate Year	Calculated Rate Increase in RRS		Requested Permanent Rate Increase		Approved/Stipulated Permanent Rate Increase		Reason For Requesting Increases Less Than The Calculated Increases
	AWU	ASU	AWU	ASU	AWU	ASU	
2004	14.2%	8.1%	14.2%	8.1%	13.6%	8.1%	The calculated increases were requested due to the change in the MUSA calculation.
2005	7.2%	6.8%	7.2%	6.8%	7.8%	3.0%	The calculated increases were requested due to the change in the MUSA calculation.
2006	12.4%	15.0%	8.9%	10.6%	6.5%	10.6%	Policy direction to limit rate increases requested to reduce impact on customers.
2007	15.0%	17.8%	14.5%	13.0%	7.0%	9.5%	Policy direction to limit rate increases requested to reduce impact on customers.
2008	-	-	-	-	-	-	Rate changes were not requested by AWWU for 2008.
2009	8.7%	8.0%	7.0%	6.5%	5.6%	6.5%	Policy direction to limit rate increases requested to reduce impact on customers.
2010	7.0%	9.5%	2.5%	2.5%	2.5%	2.5%	Policy direction to limit rate increases requested to reduce impact on customers.
2011	18.5%	26.2%	8.0%	15.0%	8.0%	15.0%	Policy direction to limit rate increases requested to reduce impact on customers.
2012	13.0%	16.6%	6.0%	11.0%	6.0%	11.0%	Policy direction to limit rate increases requested to reduce impact on customers.
2013	9.1%	6.8%	6.0%	4.5%	6.0%	4.5%	Policy direction to limit rate increases requested to reduce impact on customers.
2014	5.6%	6.7%	4.0%	5.5%	4.0%	5.5%	Rates approved as interim and refundable. Policy direction to limit rate increases requested to reduce impact on customers.

To improve its debt position, AWWU must continue to request reasonable rates and at the same time control expenses. The budget provided in this package provides just such a balance.

## Environmental Issues

Beginning in 1993, in accordance with State of Alaska Department of Environmental Conservation (ADEC) regulations, AWWU commenced activities to remove four leaking, underground fuel storage tanks and the surrounding contaminated soils. Additional contamination was identified on the affected property (unrelated to the tank leakage) requiring additional removal of soils. In 2010, the Utility completed additional site characterization. In 2011, AWWU submitted work plans and received approval from ADEC for continued groundwater monitoring while working towards closure of the case on this site. Budgeted remediation for those sites with continued monitoring and approved work plans has been programmed in 2014 to address the business risk to the Utility from further migration of contamination from Utility property.

AWWU used the expected cash flow technique to measure the liability. AWWU estimated a reasonable range of potential outlays of \$70,000 to \$255,000 for AWU and \$370,000 to \$578,000 for ASU and multiplied those outlays by their probability of occurring to estimate a pollution remediation obligation of \$88,500 for AWU and \$474,000 for ASU. The potential for a material change in the estimate is possible depending upon the response received from ADEC.

### **Wastewater Treatment Facilities Discharge Permits**

The State of Alaska Department of Environmental Conservation (ADEC) assumed authority for permitting wastewater discharges for the Girdwood and Eagle River Wastewater Treatment Facilities (WWTF) in November 2008. The Eagle River WWTF permit was reissued reissuance by ADEC in 2014. The Girdwood WWTF permit is administratively extended pending reissuance by ADEC. The Utility is working closely with ADEC to ensure that a proposed upgrade to the Girdwood WWTF is consistent with terms and conditions of the new permit, when it is reissued.

Authorization of discharge into marine waters from the Asplund WWTF under the provisions of Section 301(h) of the Clean Water Act remains under the auspices of the U.S. Environmental Protection Agency (EPA). EPA is currently evaluating the Utility's application for reauthorization of the permit. The renewal process includes an evaluation by EPA to determine whether Asplund continues to meet the Clean Water Act criteria necessary to reissue a permit with a 301(h) modification allowing only primary treatment. Subsequent to a positive determination, EPA is required to consult with the National Marine Fisheries Service (NMFS) on the effects of the permit reauthorization on endangered species (i.e., the Cook Inlet beluga whale). If NMFS finds that the discharge reauthorization is likely to jeopardize continued existence of the species or adversely modify critical habitat, NMFS may impose conditions on the permit to mitigate the effects on the species. Discussions with federal agencies to-date suggest that such a finding is unlikely.

## **Anchorage Water and Wastewater Utility External Impacts**

### **Wastewater Treatment Facilities Discharge Permits**

The State of Alaska Department of Environmental Conservation (ADEC) assumed authority for permitting wastewater discharges for the Girdwood and Eagle River Wastewater Treatment Facilities (WWTF) in November 2008. The Eagle River WWTF permit was reissued by ADEC in 2014, and will be valid for at least 5 years. The Girdwood WWTF permit is administratively extended pending reissuance by ADEC. The Utility is working closely with ADEC to ensure that a proposed upgrade to the Girdwood WWTF is consistent with terms and conditions of the new permit, when it is reissued.

Authorization of discharge into marine waters from the Asplund WWTF remains under the auspices of the U.S. Environmental Protection Agency (EPA). EPA is currently evaluating the Utility's application for reauthorization of the permit allowing only primary treatment, in accordance with criteria set out in Section 301(h) of the Clean Water Act. Subsequent to the agency's determination that the Asplund discharge meets the 301(h) criteria, EPA will consult with the National Marine Fisheries Service (NMFS) on the effects of the permit reauthorization on endangered species (i.e., the Cook Inlet beluga whale). If NMFS finds that the discharge reauthorization is likely to jeopardize continued existence of the species or adversely modify critical habitat, NMFS may impose conditions on the permit to mitigate the effects on the species. Discussions with federal agencies to-date suggest that such a finding is unlikely.

### **Aging Infrastructure**

At the current time, AWWU provides best-in-class service as measured against industry benchmarks. However, the infrastructure required to provide water and sewer service is aging and will require significant annual capital investments to maintain service levels.

AWWU has implemented a state-of-the-art asset management program to optimize spending on the Utility's aging infrastructure. We are performing business case analyses of major projects to determine lowest overall life cycle costs, as well as extensive condition assessment monitoring and evaluation using both AWWU staff and specialized contractors. This work is expected to continue to provide reduced costs to ratepayers in the long term.

## Anchorage Water and Wastewater Utility Workforce Projections

<b>Division</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
General Manager	4	2	2	2	2	2	2	2
Information Technology	18	18	18	18	18	18	18	18
Operations and Maintenance	87	87	87	87	87	87	87	87
Treatment	62	62	63	63	63	63	63	63
Finance	22	21	21	21	21	21	21	21
Employee Services	4	0	0	0	0	0	0	0
Administrative Services	0	6	6	6	6	6	6	6
Customer Service	39	39	39	39	39	39	39	39
Engineering	41	41	41	41	41	41	41	41
<b>Total full time</b>	<b>276.5</b>	<b>275</b>	<b>276</b>	<b>276</b>	<b>276</b>	<b>276</b>	<b>276</b>	<b>276</b>
Temporary	2	2	2	2	2	2	2	2
<b>Total Positions</b>	<b>278.5</b>	<b>277</b>	<b>278</b>	<b>278</b>	<b>278</b>	<b>278</b>	<b>278</b>	<b>278</b>
<b>Total FTE</b>	<b>278.5</b>	<b>277</b>	<b>278</b>	<b>278</b>	<b>278</b>	<b>278</b>	<b>278</b>	<b>278</b>
Interns	7	7	7	7	7	7	7	7



## Anchorage Water Utility 8 Year Summary

(\$ in thousands)

Financial Overview	2013	2014	2015	2016	2017	2018	2019	2020
	Actuals	Proforma	Proposed					
Revenues	59,118	61,478	61,648	64,231	67,031	67,041	69,381	72,561
Expenses and Transfers	47,060	49,095	50,745	54,103	55,243	59,770	60,836	63,864
<b>Net Income (Loss) - Regulatory</b>	<b>12,058</b>	<b>12,383</b>	<b>10,903</b>	<b>10,128</b>	<b>11,788</b>	<b>7,271</b>	<b>8,545</b>	<b>8,697</b>
Dividend to General Government	-	-	-	-	-	-	-	-
<b>Increase in Net Assets</b>	<b>12,058</b>	<b>12,383</b>	<b>10,903</b>	<b>10,128</b>	<b>11,788</b>	<b>7,271</b>	<b>8,545</b>	<b>8,697</b>
Budgeted Positions*	278.5	277	278	278	278	278	278	278
Capital Improvement Program	33,240	33,399	31,700	32,226	33,080	32,218	33,000	34,000
New Debt	8,240	18,800	72,174	3,700	3,800	3,700	3,800	76,900
Net Plant (12/31)	500,674	516,419	533,614	550,109	566,705	582,189	597,363	612,793
Net Assets (12/31)	115,675	127,758	138,688	148,816	160,604	167,875	176,420	185,118
Operating Cash	24,984	27,103	30,393	30,258	29,521	24,030	22,548	21,598
Construction Cash Pool	1,847	611	50,661	33,766	18,700	4,466	-	42,612
Restricted Cash	-	-	-	-	-	-	-	-
<b>Total Cash</b>	<b>26,831</b>	<b>27,714</b>	<b>81,054</b>	<b>64,024</b>	<b>48,221</b>	<b>28,496</b>	<b>22,548</b>	<b>64,210</b>
IGCs - General Government	1,159	1,267	1,453	1,453	1,453	1,453	1,453	1,453
MUSA	7,434	7,138	7,155	7,470	7,700	8,760	9,011	9,261
CCP Borrowings from Gen'l Govt.	-	-	-	-	-	-	12,538	-
Total Outstanding LT Debt	213,281	217,918	280,502	271,715	262,667	253,173	243,392	306,472
Total Annual Debt Service	18,938	19,223	18,418	22,287	22,413	22,422	22,565	23,859
Debt Service Coverage (Bond)	2.50	2.42	2.70	2.12	2.25	2.21	2.31	2.25
Debt Service Coverage (Total)	1.56	1.56	1.58	1.42	1.50	1.45	1.50	1.51
Debt/Equity Ratio	65 / 35	63 / 37	67 / 33	65 / 35	62 / 38	60 / 40	58 / 42	62 / 38
Rate Change Percent	6.0%	4.0%	0.0%	3.4%	4.2%	0.0%	3.5%	4.5%
Single Family Rate	48.60	50.54	50.54	52.26	54.45	54.45	56.36	58.90
<b>Statistical/Performance Trends</b>								
Number of Accounts	55,557	55,696	55,835	55,975	56,115	56,255	56,396	56,537
Average Treatment (GPD) (000)	22,900	22,957	23,015	23,072	23,130	23,188	23,246	23,304
Miles of Water Lines	838	839	841	843	845	847	850	852
Number of Public Hydrants	5,917	5,932	5,947	5,961	5,976	5,991	6,006	6,021

\* Workforce Authorized per Budget is for both Water and Wastewater utilities.

## Anchorage Water Utility Statement of Revenues and Expenses

	2013 Actuals	2014 Proforma	2014 Revised	2015 Proposed	15 v 14 % Chg
<b>Operating Revenue</b>					
Charges for services	57,971,202	59,945,000	59,800,000	60,250,000	0.8%
Miscellaneous	942,701	981,000	981,000	981,000	0.0%
<b>Total Operating Revenue</b>	<b>58,913,903</b>	<b>60,926,000</b>	<b>60,781,000</b>	<b>61,231,000</b>	<b>0.7%</b>
<b>Non Operating Revenue</b>					
Investment Income	49,725	402,000	190,000	287,000	51.1%
Other Income	154,463	150,000	130,000	130,000	0.0%
<b>Total Non Operating Revenue</b>	<b>204,188</b>	<b>552,000</b>	<b>320,000</b>	<b>417,000</b>	<b>30.3%</b>
<b>Total Revenue</b>	<b>59,118,091</b>	<b>61,478,000</b>	<b>61,101,000</b>	<b>61,648,000</b>	<b>0.9%</b>
<b>Operating Expenses</b>					
Labor					
Labor and Benefits	13,565,977	14,290,000	14,812,336	15,217,253	2.7%
Overtime	417,895	534,000	362,500	362,500	0.0%
<b>Total Labor</b>	<b>13,983,872</b>	<b>14,824,000</b>	<b>15,174,836</b>	<b>15,579,753</b>	<b>2.7%</b>
Non Labor					
Non Labor	7,299,805	8,385,000	8,425,525	8,917,783	5.8%
Travel	34,134	64,000	68,000	68,000	0.0%
Transfers (MUSA and gross receipts)	7,439,549	7,138,099	7,155,477	7,155,477	0.0%
Depreciation and Amortization	9,835,700	9,860,000	10,500,000	9,950,000	-5.2%
<b>Total Non Labor</b>	<b>24,609,188</b>	<b>25,447,099</b>	<b>26,149,002</b>	<b>26,091,260</b>	<b>-0.2%</b>
<b>Total Direct Cost</b>	<b>38,593,060</b>	<b>40,271,099</b>	<b>41,323,838</b>	<b>41,671,013</b>	<b>0.8%</b>
Charges from other departments	1,158,723	1,324,000	1,447,408	1,453,498	0.4%
Charges to other departments	-	(90,000)	(180,000)	(375,000)	108.3%
<b>Total Operating Expense</b>	<b>39,751,783</b>	<b>41,505,099</b>	<b>42,591,246</b>	<b>42,749,511</b>	<b>0.4%</b>
<b>Non Operating Expense</b>					
Interest on bonded debt	5,760,309	5,770,000	6,225,000	6,155,000	-1.1%
Amortization of debt expense	311,039	350,000	350,000	320,000	-8.6%
Other interest expense	1,731,060	1,750,000	1,985,000	1,800,000	-9.3%
Interest during construction	(494,524)	(280,000)	(280,000)	(280,000)	0.0%
<b>Total Non Operating Expense</b>	<b>7,307,884</b>	<b>7,590,000</b>	<b>8,280,000</b>	<b>7,995,000</b>	<b>-3.4%</b>
<b>Total Expenses (Function Cost)</b>	<b>47,059,667</b>	<b>49,095,099</b>	<b>50,871,246</b>	<b>50,744,511</b>	<b>-0.2%</b>
<b>Net Income</b>	<b>12,058,424</b>	<b>12,382,901</b>	<b>10,229,754</b>	<b>10,903,489</b>	<b>6.6%</b>
<b>Appropriation:</b>					
<b>Total Expenses</b>				<b>50,744,511</b>	
Less: Non Cash items					
Depreciation and amortization				9,950,000	
Amortization of debt expense				320,000	
Interest during construction				(280,000)	
Total Non-Cash				<u>9,990,000</u>	
<b>Amount to be Appropriated (cash expenses)</b>				<u><b>40,754,511</b></u>	

\*Revised 10-13-2014

## Anchorage Water Utility Reconciliation from 2014 Revised Budget to 2015 Proposed Budget

	Appropriation	Positions		
		FT	PT	T
<b>2014 Revised Budget</b>	50,756,685	275	2	7
<b>Transfers (to)/from Other Agencies</b>				
- Charges to other departments	(195,000)	-	-	-
- Charges from other departments	120,651	-	-	-
<b>Debt Service Charges</b>				
- Interest	(285,000)	-	-	-
<b>Changes in Existing Programs/Funding for 2015</b>				
- Salary and benefits adjustments	421,090	-	-	-
- Utilities	130,000	-	-	-
- Depreciation	(550,000)	-	-	-
<b>2015 Continuation Level</b>	<b>50,398,426</b>	<b>275</b>	<b>2</b>	<b>7</b>
<b>2015 Proposed Budget Changes</b>				
- Reduce non labor; maintenance, supplies, etc.	(264,742)	-	-	-
- Adjustment to capital labor for 2015.	159,972	-	-	-
- Adjust Vacancy Factor from 5% to 6%.	(130,906)	-	-	-
- Adjust Leave Accrual	(45,239)	-	-	-
- MOA portion of aerial imagery capture.	100,000	-	-	-
- AWU portion of aerial imagery capture.	125,000	-	-	-
- Consolidation of all GIS licensing into the GIS Center of Excellence.	95,000	-	-	-
- Unregulated Contaminant Monitoring Rule 3 (UCMR3) - a new, unfunded EPA monitoring requirement that AWU must comply (unfunded mandate).	57,000	-	-	-
- Increase funding for water line inspection and condition assessment.	250,000	-	-	-
<b>2015 Proposed Budget</b>	<b>50,744,511</b>	<b>275</b>	<b>2</b>	<b>7</b>
<b>2015 Budget Adjustment for Accounting Transactions (Appropriation)</b>				
- Depreciation and amortization	(9,950,000)	-	-	-
- Amortization of debt expense	(320,000)	-	-	-
- Interest during construction	280,000	-	-	-
- Anchorage Wastewater Utility; add position to take lead on researching regulatory requirements. This workforce authorization is for both Anchorage Water Utility and Anchorage Wastewater Utility	-	1	-	-
<b>2015 Proposed Budget (Appropriation)</b>	<b>40,754,511</b>	<b>276</b>	<b>2</b>	<b>7</b>

**Anchorage Water Utility**  
**2015 - 2020 Capital Improvement Program**  
(in thousands)

<b>Project Category</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Total</b>
Equipment	4,221	4,238	3,958	3,835	3,443	3,324	23,019
Plant	6,757	1,762	2,973	3,298	2,664	9,130	26,584
Pipe	20,722	26,226	26,149	25,085	26,893	21,546	146,621
<b>Total</b>	<b>31,700</b>	<b>32,226</b>	<b>33,080</b>	<b>32,218</b>	<b>33,000</b>	<b>34,000</b>	<b>196,224</b>

<b>Funding Source</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Total</b>
Debt	21,700	20,726	19,080	17,718	21,000	22,000	122,224
Grants	2,000	2,000	2,000	2,000	2,000	2,000	12,000
Equity/Operations	8,000	9,500	12,000	12,500	10,000	10,000	62,000
<b>Total</b>	<b>31,700</b>	<b>32,226</b>	<b>33,080</b>	<b>32,218</b>	<b>33,000</b>	<b>34,000</b>	<b>196,224</b>

**Anchorage Water Utility**  
**2015 Capital Improvement Budget**  
(in thousands)

<b>Project Title</b>	<b>Debt</b>	<b>State/Fed Grant</b>	<b>Equity/ Operations</b>	<b>Total</b>
2015 Depreciation Study	-	-	130	130
880 Reservoir Site Acquisition	782	-	-	782
92nd Ave Pressure Reducing Valve	786	-	-	786
ADOT-MOA-Emergency	3,404	-	-	3,404
Aerial Photography Digital Elevation Model (DEM) Acquisition	-	-	120	120
Case Loader (96835, 96836)	-	-	420	420
Customer Service: Customer Information Systems (CIS) Enhancements	-	-	650	650
Customer Service: Customer Call Center Workplace Upgrade	-	-	100	100
Dowling Road Pressure Reducing Valve	-	-	765	765
Dowling Road Water Transmission Main	2,870	-	-	2,870
Eagle River 690 Pressure Zone Intertie	1,500	-	-	1,500
Engineering: Workplace Upgrade	-	-	50	50
Engineering Project Management Tools-WTR	-	-	25	25
Eklutna Facility Plan Wtr	-	-	495	495
Facility Equipment-WTR	-	-	100	100
Facility Plant-WTR	1,000	-	-	1,000
GIS Application Development	-	-	223	223
Hansen	-	-	15	15
Hydraulic Model Support	-	-	50	50
IT Infrastructure	-	-	814	814
Lake Otis 38th-42nd Wtr Rehabilitation	1,216	2,000	-	3,216
Miscellaneous IT Systems	-	-	420	420
Northern Lights Wesleyan to Bragaw	1,000	-	-	1,000
PDF Images Connection	-	-	35	35
Plant Oversize Improvement-WTR	-	-	50	50
PME Dimond Wtr Extension	-	-	400	400
Railroad Yard Water Rehabilitation 16"	1,000	-	-	1,000
Rosemary Street to ARCA Water Rehabilitation	2,581	-	-	2,581
SCADA Equipment	-	-	750	750
SCWTF Rehabilitation	4,000	-	-	4,000
Security Improvement-WTR	-	-	200	200
Vehicles-WTR	-	-	354	354
Water Quality Management: Environmental Compliance Monitoring Reporting	-	-	45	45
Wesleyan Drive-Checkmate to Queen WTR Rehabilitation	1,561	-	1,439	3,000
Work Management Systems (WMS)	-	-	200	200
Water Upgrade Preliminary Engineering	-	-	150	150
<b>Total</b>	<b>21,700</b>	<b>2,000</b>	<b>8,000</b>	<b>31,700</b>

## Anchorage Water Utility Statement of Cash Sources and Uses

	2013 Actual	2014 Proforma	2015 Proposed
<b>Sources of Cash Funds</b>			
Operating Income	26,842,757	26,559,000	25,636,966
Depreciation, net of amortization	9,835,700	9,860,000	9,950,000
Grant Proceeds	-	2,000,000	2,000,000
Special Assessment Proceeds	248,752	250,000	250,000
State of Alaska Loan Proceeds	3,814,332	3,800,000	3,600,000
Bond/Other Loan Proceeds	4,425,600	15,000,000	88,000,000
Miscellaneous Non-Operating Revenues	154,463	150,000	130,000
Interfund Loan to Wastewater Utility	14,669,968	-	-
Interest Received	(124,268)	402,000	287,000
Changes in Assets and Liabilities	(364,286)	(553,756)	2,557,411
<b>Total Sources of Cash Funds</b>	<b>59,503,018</b>	<b>57,467,244</b>	<b>132,411,377</b>
<b>Uses of Cash Funds</b>			
Capital Construction	13,111,602	30,035,250	32,124,750
Debt Principal Payment	11,407,378	12,123,874	31,796,338
Debt Interest Payments	7,548,132	7,285,839	7,995,000
MUSA	7,919,374	7,138,099	7,155,477
<b>Total Uses of Cash Funds</b>	<b>39,986,486</b>	<b>56,583,062</b>	<b>79,071,565</b>
Net Increase (Decrease) in Cash Funds	19,516,532	884,182	53,339,812
Cash Balance, January 1	7,553,945	27,070,477	27,954,659
<b>Cash Balance, December 31</b>	<b>27,070,477</b>	<b>27,954,659</b>	<b>81,294,471</b>
<b>Detail of Cash and Investment Funds</b>			
General Cash Less Customer Deposits	24,984,337	27,103,364	30,393,526
Construction Cash	1,846,545	611,295	50,660,945
Operating Fund Investment & Customer Deposits	239,595	240,000	240,000
<b>Cash Balance, December 31</b>	<b>27,070,477</b>	<b>27,954,659</b>	<b>81,294,471</b>

## Anchorage Wastewater Utility 8 Year Summary

(\$ in thousands)

Financial Overview	2013	2014	2015	2016	2017	2018	2019	2020
	Actuals	Proforma	Proposed					
Revenues	49,607	51,969	51,813	55,265	58,745	63,475	69,015	72,255
Expenses and Transfers	41,468	43,076	44,691	51,288	54,828	58,758	61,438	63,148
<b>Net Income (Loss) - Regulatory</b>	<b>8,139</b>	<b>8,893</b>	<b>7,122</b>	<b>3,977</b>	<b>3,917</b>	<b>4,717</b>	<b>7,577</b>	<b>9,107</b>
Dividend to General Government	-	-	-	-	-	-	-	-
<b>Increase in Net Assets</b>	<b>8,139</b>	<b>8,893</b>	<b>7,122</b>	<b>3,977</b>	<b>3,917</b>	<b>4,717</b>	<b>7,577</b>	<b>9,107</b>
Budgeted Positions*	278.5	277	278	278	278	278	278	278
Capital Improvement Program	31,863	31,863	33,345	34,200	35,150	36,000	37,000	38,000
New Debt	29,961	12,000	64,549	5,000	105,000	5,000	5,000	5,000
Net Plant (12/31)	372,847	381,582	399,855	417,574	433,805	496,135	518,180	538,630
Net Assets (12/31)	78,584	87,477	94,072	98,048	101,966	106,683	114,260	123,367
Operating Cash	19,721	23,012	22,629	18,968	16,016	12,272	13,045	14,384
Construction Cash Pool	2,125	2,453	44,197	17,194	75,789	51,244	23,044	-
Restricted Cash	-	-	-	-	-	-	-	-
<b>Total Cash</b>	<b>21,846</b>	<b>25,465</b>	<b>66,826</b>	<b>36,162</b>	<b>91,805</b>	<b>63,516</b>	<b>36,089</b>	<b>14,384</b>
IGCs - General Government	1,112	1,441	1,436	1,436	1,436	1,436	1,436	1,436
MUSA	5,376	5,387	5,398	5,640	5,890	6,120	7,000	7,310
CCP Borrowings from Gen'l Govt.	-	-	-	-	-	-	-	4,856
Total Outstanding LT Debt	137,833	139,471	225,682	221,007	315,980	307,701	299,283	290,597
Total Annual Debt Service	9,924	10,153	13,396	17,288	19,472	24,420	24,217	24,169
Debt Service Coverage (Bond)	5.26	5.55	3.42	2.20	2.05	1.68	1.93	2.08
Debt Service Coverage (Total)	2.02	2.08	1.42	1.25	1.23	1.13	1.30	1.38
Debt/Equity Ratio	67 / 33	66 / 34	71 / 29	69 / 31	76 / 24	74 / 26	72 / 28	70 / 30
Rate Change Percent	4.50%	5.50%	0.00%	5.90%	6.00%	7.80%	8.90%	5.00%
Single Family Rate	39.04	41.18	41.18	43.61	46.23	49.83	54.27	56.98
<b>Statistical/Performance Trends</b>								
Number of Accounts	56,432	56,573	56,715	56,856	56,816	56,958	57,100	57,243
Average Treatment (GPD) (000)	30,800	30,877	30,954	31,032	31,109	31,187	31,265	31,343
Miles of Wastewater Lines	751	753	755	757	759	760	762	764

\* Workforce Authorized per Budget is for both Water and Wastewater utilities.

## Anchorage Wastewater Utility Statement of Revenues and Expenses

	2013 Actuals	2014 Proforma	2014 Revised	2015 Proposed	15 v 14 % Chg
<b>Operating Revenue</b>					
Charges for Services	48,681,220	50,730,000	50,500,000	50,600,000	0.2%
Miscellaneous	940,108	971,000	970,000	970,000	0.0%
<b>Total Operating Revenue</b>	<b>49,621,328</b>	<b>51,701,000</b>	<b>51,470,000</b>	<b>51,570,000</b>	<b>0.2%</b>
<b>Non Operating Revenue</b>					
Investment Income	(17,448)	253,000	30,000	228,000	660.0%
Other Income	2,991	15,000	15,000	15,000	0.0%
<b>Total Non Operating Revenue</b>	<b>(14,457)</b>	<b>268,000</b>	<b>45,000</b>	<b>243,000</b>	<b>440.0%</b>
<b>Total Revenue</b>	<b>49,606,871</b>	<b>51,969,000</b>	<b>51,515,000</b>	<b>51,813,000</b>	<b>0.6%</b>
<b>Operating Expenses</b>					
Labor					
Labor and Benefits	14,110,221	15,091,000	15,273,225	15,448,391	1.1%
Overtime	466,867	393,000	378,000	378,000	0.0%
Total Labor	14,577,088	15,484,000	15,651,225	15,826,391	1.1%
Non Labor					
Non Labor	8,758,206	8,919,000	8,946,757	9,801,884	9.6%
Travel	32,910	64,000	68,000	68,000	0.0%
Transfers (MUSA and gross receipts)	5,376,225	5,386,761	5,397,958	5,397,958	0.0%
Depreciation and Amortization	7,798,747	7,800,000	8,200,000	7,850,000	-4.3%
Total Non Labor	21,966,088	22,169,761	22,612,715	23,117,842	2.2%
<b>Total Direct Cost</b>	<b>36,543,176</b>	<b>37,653,761</b>	<b>38,263,940</b>	<b>38,944,233</b>	<b>1.8%</b>
Charges from other departments	1,112,140	1,322,000	1,441,880	1,436,427	-0.4%
<b>Total Operating Expense</b>	<b>37,655,316</b>	<b>38,975,761</b>	<b>39,705,820</b>	<b>40,380,660</b>	<b>1.7%</b>
<b>Non Operating Expense</b>					
Interest on bonded debt	3,095,017	3,310,000	3,640,000	3,500,000	-3.8%
Amortization of debt expense	36,518	40,000	40,000	40,000	0.0%
Other interest expense	1,522,629	1,430,000	1,500,000	1,450,000	-3.3%
Interest during construction	(841,487)	(680,000)	(680,000)	(680,000)	0.0%
<b>Total Non Operating Expense</b>	<b>3,812,677</b>	<b>4,100,000</b>	<b>4,500,000</b>	<b>4,310,000</b>	<b>-4.2%</b>
<b>Total Expenses (Function Cost)</b>	<b>41,467,993</b>	<b>43,075,761</b>	<b>44,205,820</b>	<b>44,690,660</b>	<b>1.1%</b>
<b>Net Income</b>	<b>8,138,878</b>	<b>8,893,239</b>	<b>7,309,180</b>	<b>7,122,340</b>	<b>-2.6%</b>
<b>Appropriation</b>					
<b>Total Expenses</b>				<b>44,690,660</b>	
Less: Non Cash items					
Depreciation and amortization				7,850,000	
Amortization of debt expense				40,000	
Interest during construction				(680,000)	
Total Non-Cash				7,210,000	
<b>Amount to be Appropriated (cash expenses)</b>				<b>37,480,660</b>	

\*Revised 10-13-2014



## Anchorage Wastewater Utility Reconciliation from 2014 Revised Budget to 2015 Proposed Budget

	Appropriation	Positions		
		FT	PT	T
<b>2014 Revised Budget</b>	43,903,738	275	2	7
<b>Transfers (to)/from Other Agencies</b>				
- Charges from other departments	296,629	-	-	-
<b>Debt Service Charges</b>				
- Interest	(190,000)	-	-	-
<b>Changes in Existing Programs/Funding for 2015</b>				
- Salary and benefits adjustments	41,492	-	-	-
- Depreciation	(350,000)	-	-	-
<b>2015 Continuation Level</b>	<b>43,701,859</b>	<b>275</b>	<b>2</b>	<b>7</b>
<b>2015 Proposed Budget Changes</b>				
- Adjustment to capital labor for 2015.	159,226	-	-	-
- Adjust Vacancy Factor from 5% to 6%.	(187,837)	-	-	-
- Adjust Leave Accrual	29,037	-	-	-
- Reduce non labor; maintenance, supplies, etc.	(69,873)	-	-	-
- Increase purchased water. Due to failing wells at the Asplund treatment plant we have been increasing the amount of water purchased from AWU. The increased expense for ASU creates an increase revenue for AWU.	350,000	-	-	-
- Add position to take lead on researching regulatory requirements, writing permit applications and reviewing draft permits to meet increasing regulatory requirements.	133,248	1	-	-
- ASU portion of addition for aerial imagery capture.	125,000	-	-	-
- Increase funding for sewer line inspection and condition assessment to better plan capital spending. Condition assessment data has proven to lead to more efficient and targeted replacement of infrastructure.	450,000	-	-	-
<b>2015 Proposed Budget</b>	<b>44,690,660</b>	<b>276</b>	<b>2</b>	<b>7</b>
<b>2015 Budget Adjustment for Accounting Transactions (Appropriation)</b>				
- Depreciation and amortization	(7,850,000)	-	-	-
- Amortization of debt expense	(40,000)	-	-	-
- Interest during construction	680,000	-	-	-
<b>2015 Proposed Budget (Appropriation)</b>	<b>37,480,660</b>	<b>276</b>	<b>2</b>	<b>7</b>

Workforce Authorized per Budget is for both Water and Wastewater utilities.

**Anchorage Wastewater Utility**  
**2015 - 2020 Capital Improvement Program**  
(in thousands)

<b>Project Category</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Total</b>
Equipment	4,629	4,323	3,958	3,671	3,443	3,324	23,348
Plant	19,704	14,450	11,620	9,980	13,322	980	70,056
Pipe	9,012	15,427	19,572	22,349	20,235	33,696	120,291
<b>Total</b>	<b>33,345</b>	<b>34,200</b>	<b>35,150</b>	<b>36,000</b>	<b>37,000</b>	<b>38,000</b>	<b>213,695</b>

<b>Funding Source</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Total</b>
Debt	24,345	25,200	26,650	28,000	29,500	29,000	162,695
Grants	1,000	1,000	1,000	1,000	1,000	1,000	6,000
Equity/Operations	8,000	8,000	7,500	7,000	6,500	8,000	45,000
<b>Total</b>	<b>33,345</b>	<b>34,200</b>	<b>35,150</b>	<b>36,000</b>	<b>37,000</b>	<b>38,000</b>	<b>213,695</b>

**Anchorage Wastewater Utility**  
**2015 Capital Improvement Budget**  
(in thousands)

<b>Project Title</b>	<b>Debt</b>	<b>State/Fed Grant</b>	<b>Equity/ Operations</b>	<b>Total</b>
2015 Depreciation Study	-	-	130	130
ADOT-MOA-Emergency	2,524	-	-	2,524
Aerial Photography Digital Elevation Model (DEM) Acquisition	-	-	120	120
Asplund Wastewater Treatment Facility Clarifiers	1,000	-	-	1,000
Asplund Wastewater Treatment Facility Gravity Thickener Rehabilitation	400	-	-	400
Asplund Wastewater Treatment Facility Old Incinerator Removal	750	-	-	750
Asplund Wastewater Treatment Facility Old Raw Pump Station Heating and Ventilating	60	-	-	60
Asplund Wastewater Treatment Facility Slope Protection and Beach Tower	500	-	-	500
Asplund Wastewater Treatment Facility Sludge Dewatering Replacement	3,000	1,000	-	4,000
Business Park Swr Rehabilitation	650	-	-	650
Customer Service: Customer Information Systems (CIS) Enhancements	-	-	650	650
Downtown Pipe Replacement	-	-	1,000	1,000
Engineering Project Management Tools-WTR	-	-	25	25
Eagle River Wastewater Treatment Facility Rehabilitation	12,364	-	-	12,364
Facility Equipment-SWR	-	-	100	100
Facility Plant-SWR	-	-	500	500
Fish Creek Gravity Interceptor	-	-	900	900
Girdwood Inflow & Infiltration	-	-	500	500
GIS Application Development	-	-	223	223
Granite XP CCTV Upgr	-	-	120	120
Hansen	-	-	15	15
Hydraulic Model Support	-	-	50	50
Interceptor Rehabilitation	1,000	-	-	1,000
IT Infrastructure	-	-	814	814
Line Truck (94218) Combination Cleaner (94940)	-	-	708	708
Miscellaneous IT Systems	-	-	420	420
PDF Images Connection	-	-	35	35
Plant Oversize Improvement-SWR	-	-	50	50
SCADA Equipment	-	-	750	750
Small Pipe Replacement	1,958	-	-	1,958
Sewer Upgrade Preliminary Engineering	139	-	291	430
Vehicles-SWR	-	-	354	354
Water Quality Management: Environmental Compliance Monitoring Reporting	-	-	45	45
Work Management Systems (WMS)	-	-	200	200
<b>Total</b>	<b>24,345</b>	<b>1,000</b>	<b>8,000</b>	<b>33,345</b>

## Anchorage Wastewater Utility Statement of Cash Sources and Uses

	2013 Actual	2014 Proforma	2015 Proposed
<b>Sources of Cash Funds</b>			
Operating Income	17,583,490	18,112,000	16,587,298
Depreciation, net of amortization	7,798,747	7,800,000	7,850,000
Transfer from Escrow Account	-	-	-
Grant Proceeds	3,223,942	2,000,000	1,000,000
Special Assessment Proceeds	254,484	300,000	300,000
State of Alaska Loan Proceeds	6,509,823	7,000,000	5,000,000
Bond/Other Loan Proceeds	23,451,000	5,000,000	88,000,000
Miscellaneous Non-Operating Revenues	2,991	15,000	15,000
Interest Received	(43,930)	253,000	228,000
Changes in Assets and Liabilities	(1,465,468)	308,721	1,424,768
<b>Total Sources of Cash Funds</b>	<b>57,315,079</b>	<b>40,788,721</b>	<b>120,405,066</b>
<b>Uses of Cash Funds</b>			
Capital Construction	18,905,077	21,672,200	31,804,900
Debt Principal Payment	5,263,322	5,402,093	35,279,649
Debt Interest Payments	4,597,290	4,746,037	6,561,810
Interfund Loan from Water Utility	14,669,968	-	-
MUSA	5,376,225	5,386,761	5,397,958
<b>Total Uses of Cash Funds</b>	<b>48,811,882</b>	<b>37,207,091</b>	<b>79,044,317</b>
Net Increase (Decrease) in Cash Funds	8,503,197	3,581,630	41,360,749
Cash Balance, January 1	13,700,325	22,203,522	25,785,152
<b>Cash Balance, December 31</b>	<b>22,203,522</b>	<b>25,785,152</b>	<b>67,145,901</b>
<b>Detail of Cash and Investment Funds</b>			
General Cash Less Customer Deposits	19,720,813	23,011,959	22,628,608
Construction Cash	2,125,393	2,453,193	44,197,293
Operating Fund Investment & Customer Deposits	357,316	320,000	320,000
<b>Cash Balance, December 31</b>	<b>22,203,522</b>	<b>25,785,152</b>	<b>67,145,901</b>

## **About Anchorage Water and Wastewater**

### **Anchorage Water Utility History**

From the first intake of water at Lower Ship Creek, and a few miles of woodstave water lines downtown more than 90 years ago, Anchorage's public water utility has grown into an enterprise with a net plant in service of approximately \$501 million that delivers nearly 27 million gallons of water to customers each day. The original water system for Anchorage was installed by the Alaska Railroad in 1917. In 1921, the City purchased the water system and associated water rights from the Alaska Engineering Commission. As the City expanded by annexation, the water system was extended into new areas and independent water systems previously serving the annexed areas were acquired by the City. In 1929, an aqueduct was drilled through the mountains north of Anchorage to supply water from Eklutna Lake to the Eklutna hydroelectric power plant along the Knik River. In 1985, AWWU tapped this aqueduct and connected a 7.8 mile long transmission main (intake portal) to provide water from the Lake to the Eklutna Water Treatment Facility. A 2.6 mile raw water line to Ship Creek was built in 1980 to replace an earlier raw water main originally constructed in 1962 for the Ship Creek Water Treatment Facility (WTF).

### **Anchorage Wastewater Utility History**

The Alaska Engineering Commission first installed sewers in downtown Anchorage in 1916 along the lower bluff near the Alaska Railroad Depot. As Anchorage grew, construction of sewers continued and by the end of World War II, sewers were available too much of the area between Ship Creek and Chester Creek, west of Cordova Street. Greater Anchorage Area Borough (GAAB) was created in 1964, and was granted area wide sewer authority. The last major private sewer utility was acquired by the GAAB in 1972. The wastewater utility is now owned and governed by the Municipality of Anchorage as a result of unification of the City of Anchorage and the GAAB on September 15, 1975. Anchorage's public wastewater utility has grown into an enterprise with a net plant in service of approximately \$373 million.

### **Service**

Anchorage's enjoyment of drinking water is just one part of the AWWU system. After the day's water is used, it must be treated before it is returned to the environment. The creeks and inlets downstream from Anchorage's wastewater treatment facilities are not adversely impacted by treated effluent, which is AWWU's principal measure of success. The Anchorage community benefits from the superior operation of the three wastewater treatment plants that serve its growing population.

### **Governance**

AWWU has a seven-member Board of Directors as codified in Anchorage Municipal Code section 4.80.020. The Board is appointed by the Mayor to staggered 3-year terms, with nominees subject to Assembly approval. The Board, by code, makes recommendations to the Mayor, establishes procedures for customer complaints, and recommends changes in code to the Assembly that the Board deems necessary or desirable for the efficient operation of the Utility or for the benefit of its customers. The authority for operation and management of the Utility is under the control of the Mayor. The Board members are very experienced professionals in the fields of law, accounting, engineering, and public health, in addition to 2 at-large citizen members. Regular meetings are held monthly and are open to the public. Board meetings focus on Utility operations and highlights.

### **Economic Regulation and Accounting**

Since 1970, both the Anchorage Water Utility (AWU) and the Anchorage Wastewater Utility (ASU) have been regulated by the Alaska Public Utilities Commission (APUC), which was renamed the Regulatory Commission of Alaska (RCA) on July 1, 1999. AWU and ASU each hold a Certificate of Public Convenience and Necessity for serving portions of the Anchorage Bowl, Eagle River and Girdwood. This commission must approve all rates and tariffs prior to implementation. They also regulate service areas and service quality. The RCA is composed of five members appointed to six-year staggered terms by the Governor of the State of Alaska and confirmed by the State Legislature.

AWWU is an Enterprise Fund. Enterprise Funds are used to account for operations where costs of providing services to the general public on a continuing basis be financed or recovered primarily through user charges or where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or change in net assets is appropriate for capital maintenance, public policy, management control, accountability or other purposes.

AWWU applies all applicable provisions of the Governmental Accounting Standards Board (GASB) which has authority for setting accounting standards for governmental entities. The accounting records of the Utility conform to the Uniform System of Accounts prescribed by the National Association of Regulatory Utility Commissioners (NARUC). The accrual basis of accounting is used for Enterprise Funds. Revenues are recognized in the accounting period in which they are earned and become measurable. Expenses are recognized in the period incurred, if measurable.

### **Environmental Regulation**

AWWU's activities are dictated by a wide variety of environmental regulations administered by the EPA and the ADEC. Potable water produced by AWU must comply with the regulations promulgated under the Safe Drinking Water Act (SDWA). The SDWA is the main federal law governing the quality of drinking water in the United States. The ADEC has authority (primacy) to administer the SDWA regulations for the EPA. The SDWA sets standards for the chemical and microbial quality of drinking water and establishes requirements for informing the public.

ASU's activities are also dictated by a wide variety of environmental regulations administered by the EPA and the ADEC. All wastewater discharges must comply with the regulations promulgated under the Clean Water Act (CWA). The CWA is the main federal law governing discharges into the waters of the United States. The CWA requires that each treatment facility have a unique National Pollution Discharge Elimination System (NPDES) permit that specifies the discharge limits from each facility for a wide variety of chemical and biological constituents. The ADEC has authority (primacy) to issue and administer the NPDES permits for ASU's Eagle River and Girdwood WWTFs. Authority to issue and administer the 301(h) modification for the Asplund WWTF has been retained by EPA, due to the special conditions of this discharge as outlined in section 301(h) of the CWA. In addition to the CWA laws, ASU's sewage sludge incinerator must also comply with the provisions specified in Title V of the Clean Air Act (CAA). ADEC has primacy for the CAA and administers the permit for EPA.

Failure to comply with the regulations promulgated under the SDWA, CWA and CAA can result in fines and/or compliance orders and criminal charges.

### **Physical Plant**

The John M. Asplund Wastewater Treatment Facility is one of the few facilities in the nation operating as a primary treatment facility under Section 301(h) of the Clean Water Act. The primary treatment provided by this facility removes up to 45% of the BOD and 80% of the solids from the influent wastewater meeting the criteria necessary for discharge to the marine waters of Cook Inlet.

The smaller Eagle River and Girdwood Wastewater Treatment facilities provide advanced secondary treatment prior to discharge to Eagle River and Glacier Creek respectively. These facilities remove up to 99% of the pollutants from the incoming wastewater prior to discharge.

In 2013, the Asplund Wastewater Treatment Facility treated an average of 28.9 million gallons per day (mgd). The Eagle River Wastewater Treatment Facility treated an average 1.4 mgd and the Girdwood Wastewater Treatment Facility treated 0.5 mgd. The three facilities have a combined design capacity of 61.1 mgd. The wastewater collection system has approximately 751 miles of pipes.

The Asplund Facility, built in 1972, is Alaska's largest wastewater treatment plant. As wastewater treatment technology and the demands of community growth have developed over the last two decades, utility operators and engineers have kept pace. The Asplund plant was upgraded in 1982, and expanded and upgraded again in 1989.

In conjunction with the permit renewal process, a facilities plan update was prepared in 1999. The facilities plan evaluated the existing condition of the Asplund facility and identified improvements necessary to meet the future needs of the community. The facilities plan identified a cumulative \$40 million worth of improvements to the solids handling, headworks, administration, laboratory, incineration, and thickening processes and control and power systems. These projects, along with careful operation, have made Asplund a modern, state-of-the-art treatment facility. ASU continues to maintain its treatment plants. Additional projects at Asplund, Eagle River and Girdwood are underway, all designed to replace, rehabilitate and provide for the near-term needs of the areas being serviced.

AWU's three sources of water are Eklutna Lake, Ship Creek and groundwater accessed through a system of wells in the Northern Communities, the Anchorage Bowl and Girdwood Valley. Eklutna Water Treatment Facility and the wells which supply Girdwood are operated year-round and serve as the primary supply sources for the two water systems. The Ship Creek Water Treatment Facility and the remainder of water wells are used to augment the primary water supply as well as provide redundancy to the Eklutna source for Eagle River and the Anchorage Bowl.

Of these sources, the Eklutna Water Treatment Facility (WTF) now provides, on average, 87 percent of total water production for the Northern Communities and the Anchorage Bowl. In Girdwood, where system demand constitutes less than 2 percent of AWWU's total water production, all water produced and distributed is from two wells.

Projects to maintain the surface water plants and AWU's wells are on-going. The purpose of these projects is multiple fold: to rehabilitate and upgrade facilities where equipment has reached the end of its useful life; to automate and increase operational efficiency of facilities; to increase yield from existing well sites; and to meet stricter federal and state regulations regarding water quality.

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