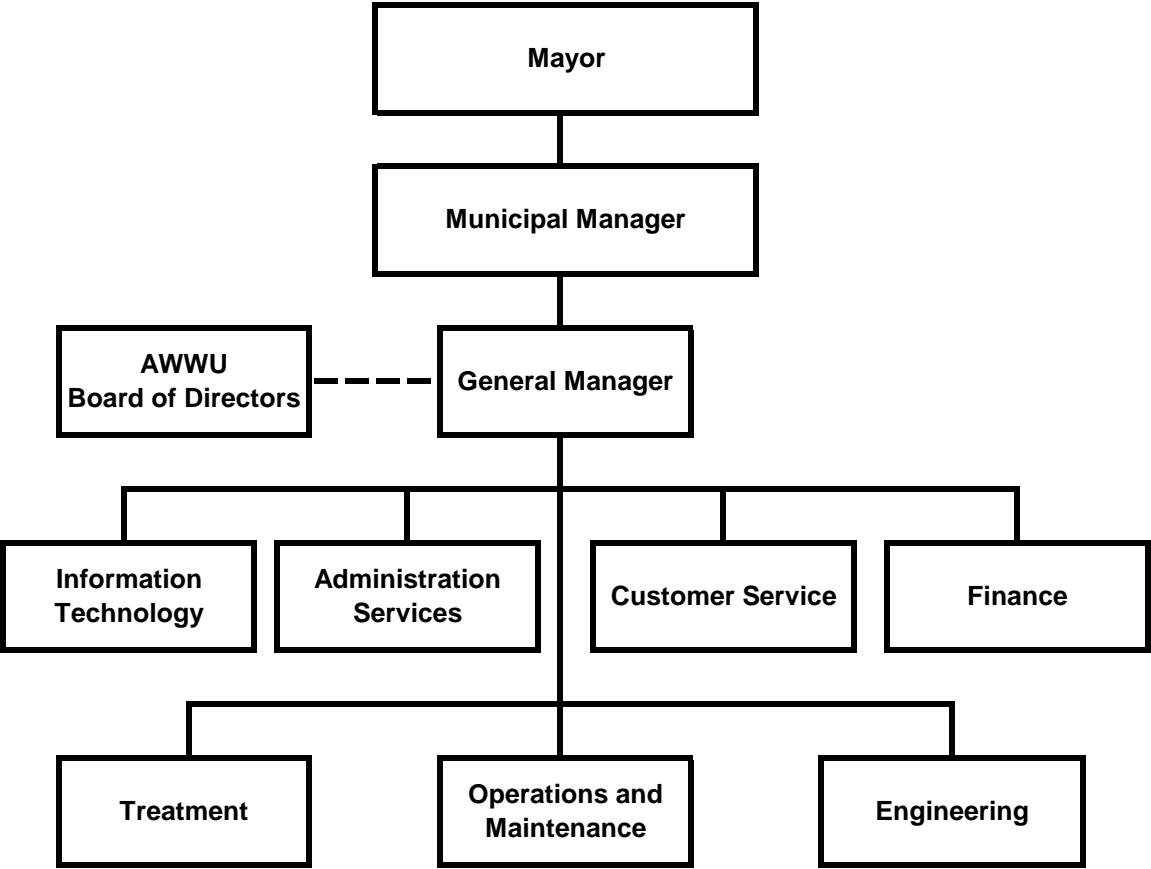


Anchorage Water & Wastewater Utility



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), approximately 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 from EPA over permits for wastewater discharge to fresh water.

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 126% from \$355.2 million to \$802 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 116% from \$301.5 million to \$651 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 is in the process of preparing an updated strategic plan. The plan calls for the focus on the following goals:

- Be responsive to the needs of the community
- Be the model of innovation and efficiency in service to the public
- Be a responsible steward of ratepayer funds
- Be the employer of choice for existing and future staff

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.

Anchorage Water & 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:

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	2016				Past Years					
		Q4	Q3	Q2	Q1	2015	2014	2013	2012	2011	2010
Safe Drinking Water Act Compliance (%)	100			100	100	100	100	100	100	100	100
Clean Water Act (NPDES permit) Compliance (%)	100					100				100	99.99
-Asplund				100	100	100	100	99.8	100		
-Eagle River				100	100	100	100	100	99.5		
-Girdwood				100	100	99.5	99.8	99.3	97.5		
Clean Air Act Compliance (%) (Asplund Incinerator)	100			100	100	99.998	100	99.998	99.99	99.99	99.99

Measure #2: Number of planned and unplanned water outages

Measure 2: Number of planned and unplanned water outages (customers per month)	Goal (Affected customers per month)	2016 (monthly average)	4 th Q 2016 (monthly average)	3 rd Q 2016 (monthly average)	2 nd Q 2016 (monthly average)	1 st Q 2016 (monthly average)	Historical monthly average			
							2015	2014	2013	2012
Planned Outages										
<4 hours	<20	5			10	0	18	27	25	18
4-12 hours	<20	4			8	0	23	37	86	47
>12 hours	0	0			0	0	0.2	0.6	0.3	0.2
Unplanned Outages										
<4 hours	<20	81			147	15	41	40	27	46
4-12 hours	<50	19			12	26	33	44	33	38
>12 hours	0	6.5			13	0	0.2	3	8	4

Measure #3: Sanitary Sewer Overflows

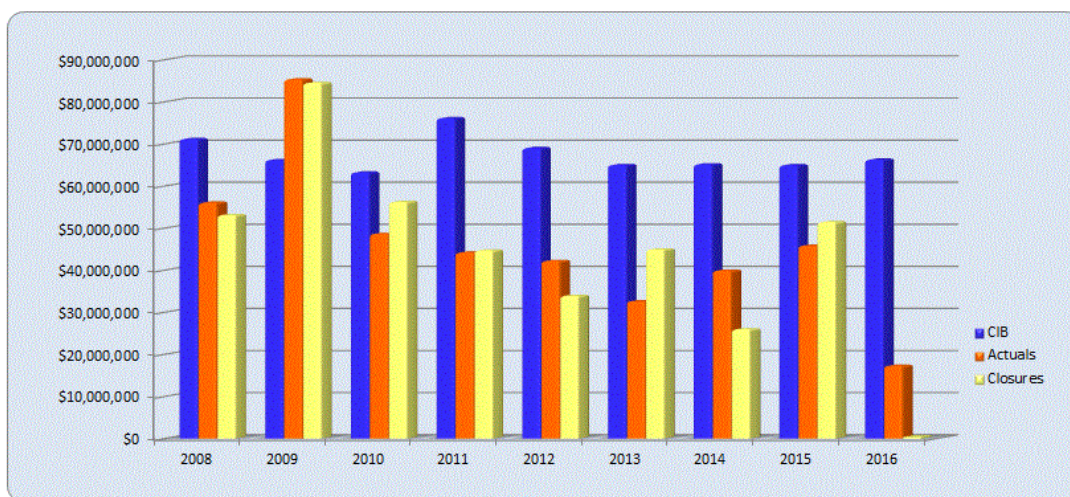
Goal	2016				Historical monthly average							
	Q4	Q3	Q2	Q1	2015	2014	2013	2012	2011	2010	2009	2008
<1.5			1.3	2.33	1.58	1.75	2.25	1.83	1.91	1.33	1.58	1

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

Goal	2015	Historical Information						
		2014	2013	2012	2011	2010	2009	2008
<4.60	6.08	5.91	4.47	5.2	4.4	1.72	4.10	4.00

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

Goal	2016	Historical Information							
		2015	2014	2013	2012	2011	2010	2009	2008
75%	TBD	71%	61%	56%	65%	61%	66%	129%	67%



Budget, Expenditures, and Closures Through June 30, 2016

Budget, Expenditures, and Closures through June 30, 2016.

Measure #6: Debt to Equity Ratio (annual)

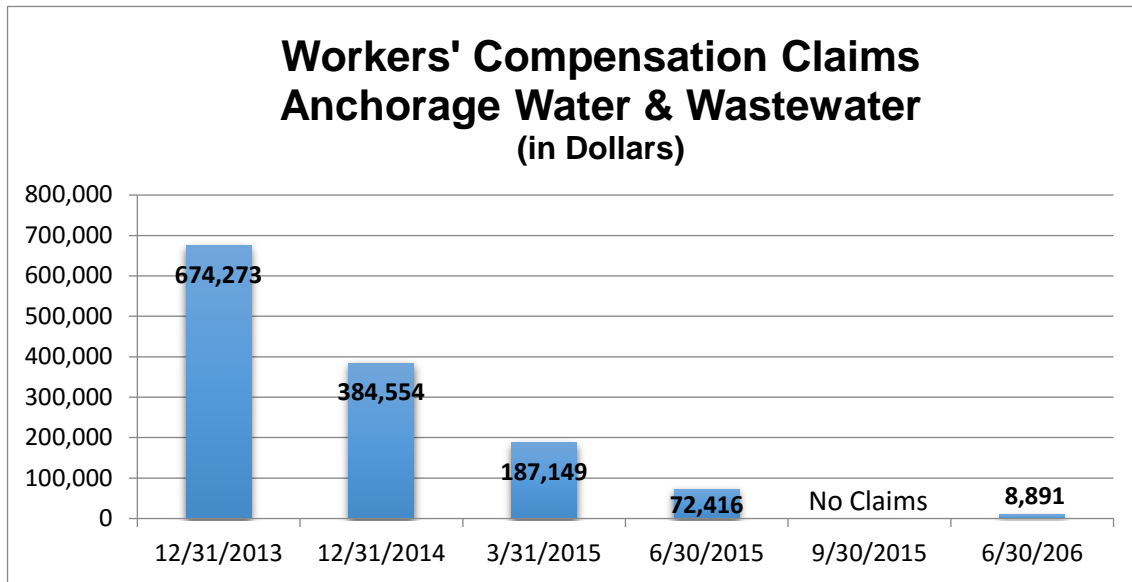
	Goal	2015 *	Historical Information						
			2014	2013	2012	2011	2010	2009	2008
Water Utility	67/33	61/39	62/38	65/35	67/33	70/30	70/30	71/29	72/28
Wastewater Utility	67/33	64/36	65/35	67/33	66/34	68/32	69/31	68/32	66/34

*2015 results are draft and subject to change. These results also do not reflect the impacts of implementing GASB 68.

PVR Measure WC: Managing Workers' Compensation Claims
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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.



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 over 842 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 over 757 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 advanced its 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 solutions yielding 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. 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, expansion in outlying areas (which require significant expenditures to extend infrastructure) 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.

Debt

At the end of 2015, AWWU was carrying approximately \$389.7 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.

**Rate Increases Calculated, Requested and Approved
AWWU 2004 - 2016**

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%	2.26%	4.34%	Policy direction to limit rate increases requested to reduce impact on customers. AWWU stipulated to permanent rates lower than the rates requested.
2015	-	-	-	-	-	-	Rate changes were not requested by AWWU for 2015.
2016	-	-	-	-	-	-	Rate changes were not requested by AWWU for 2016.

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.

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 five 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). The 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 advanced its asset management program to optimize spending on the Utility's aging infrastructure. We are performing business case analyses of major issues to determine solutions that lead to 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 provide best value to ratepayers in the long term.

Anchorage Water and Wastewater Utility Workforce Projections

Division	2015	2016	2017	2018	2019	2020	2021	2022
General Manager	2	2	2	2	2	2	2	2
Information Technology	18	18	18	18	18	18	18	18
Operations and Maintenance	87	91	91	91	91	91	91	91
Treatment	63	63	64	64	64	64	64	64
Finance	21	21	21	21	21	21	21	21
Administrative Services	5	5	5	5	5	5	5	5
Customer Service	39	41	41	41	41	41	41	41
Engineering	41	41	41	41	41	41	41	41
Total Full Time	276	282	283	283	283	283	283	283
Part time	2	1	1	1	1	1	1	1
Seasonal Temporary	4	4	4	4	4	4	4	4
Interns	7	7	7	7	7	7	7	7
Total Temporary	11	11	11	11	11	11	11	11
Total Positions	289	294	295	295	295	295	295	295

Anchorage Water Utility 8 Year Summary

(\$ in thousands)

Financial Overview	2015	2016	2017	2018	2019	2020	2021	2022
	Actuals	Proforma	Proposed	Forecast				
Revenues	61,449	62,002	61,648	64,708	67,758	71,478	74,888	76,528
Expenses and Transfers	48,993	50,379	54,482	56,799	58,320	60,894	63,504	64,967
Net Income (Loss) - Regulatory	12,456	11,623	7,166	7,909	9,438	10,584	11,384	11,561
Dividend to General Government	-	-	-	3,044	3,194	3,359	3,534	3,694
Increase in Net Assets	12,456	11,623	7,166	4,865	6,244	7,225	7,850	7,867
 Budgeted Positions*	289	294	295	295	295	295	295	295
Capital Improvement Program	32,226	32,226	32,963	32,620	32,860	34,000	34,755	35,755
New Debt	20,379	17,500	35,574	9,600	9,700	71,000	10,200	10,500
Net Plant (12/31)	531,963	549,046	563,464	578,233	592,768	608,001	623,164	638,661
Net Assets (12/31)	142,458	154,081	161,247	166,112	172,356	179,581	187,431	195,297
 Operating Cash	34,126	35,584	32,728	27,715	25,104	25,565	25,752	26,663
Construction Cash Pool	1,524	956	18,063	5,576	-	37,152	19,550	1,368
Restricted Cash	323	323	323	323	323	323	323	323
Total Cash	35,973	36,863	51,114	33,614	25,427	63,040	45,625	28,354
 IGCs - General Government	1,055	1,069	2,014	2,014	2,014	2,014	2,014	2,014
MUSA	7,114	7,315	7,670	8,669	8,930	9,184	9,434	9,677
CCP Borrowings from Gen'l Govt.	-	-	-	-	7,873	-	-	-
Total Outstanding LT Debt	221,203	229,462	254,504	251,216	247,441	304,427	298,084	292,089
Total Annual Debt Service	15,876	16,108	18,409	21,223	21,545	23,016	26,279	25,857
Debt Service Coverage (Bond)	3.22	3.25	2.62	2.23	2.41	2.41	2.15	2.21
Debt Service Coverage (Total)	1.85	1.80	1.42	1.33	1.40	1.42	1.33	1.37
Debt/Equity Ratio	61 / 39	60 / 40	61 / 39	60 / 40	59 / 41	63 / 37	61 / 39	60 / 40
Rate Change Percent	0.0%	0.0%	0.0%	4.7%	5.0%	5.0%	4.3%	2.3%
Single Family Rate	49.89	49.89	49.89	52.23	54.85	54.59	60.07	61.45
 Statistical/Performance Trends								
Number of Accounts	56,155	56,295	56,436	56,577	56,719	56,860	57,003	57,145
Average Treatment (MGD)	23.6	23.7	23.7	23.8	23.8	23.9	24.0	24.0
Miles of Water Lines	843	845	847	849	851	854	856	858
Number of Public Hydrants	5,999	6,014	6,029	6,044	6,059	6,074	6,090	6,105

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

Anchorage Water Utility Statement of Revenues and Expenses

	2015 Actuals	2016 Proforma	2016 Approved	17 v 16 \$ Change	2017 Proposed	17 v 16 % Change
Operating Revenue						
Charges for services	59,960,903	59,800,000	59,600,000	100,000	59,700,000	0.2%
Miscellaneous	1,325,184	1,172,000	981,000	207,000	1,188,000	21.1%
Total Operating Revenue	61,286,087	60,972,000	60,581,000	307,000	60,888,000	0.5%
Non Operating Revenue						
Investment Income	201,063	900,000	310,000	300,000	610,000	96.8%
Other Income	(37,710)	130,000	130,000	20,000	150,000	15.4%
Total Non Operating Revenue	163,353	1,030,000	440,000	320,000	760,000	72.7%
Total Revenue	61,449,440	62,002,000	61,021,000	627,000	61,648,000	1.0%
Operating Expenses						
Labor						
Labor and Benefits	14,738,615	15,429,000	15,650,560	770,167	16,420,727	4.9%
Overtime	551,035	510,000	448,000	5,000	453,000	1.1%
Total Labor	15,289,650	15,939,000	16,098,560	775,167	16,873,727	4.8%
Non Labor						
Non Labor	9,423,274	8,930,000	9,326,847	(185,131)	9,141,716	-2.0%
Travel	43,997	69,000	82,000	500	82,500	0.6%
Transfers (MUSA and gross receipts)	7,113,584	7,315,000	7,280,000	390,000	7,670,000	5.4%
Depreciation and Amortization	10,191,049	11,077,000	11,427,000	83,000	11,510,000	0.7%
Total Non Labor	26,771,904	27,391,000	28,115,847	288,369	28,404,216	1.0%
Total Direct Cost	42,061,554	43,330,000	44,214,407	1,063,536	45,277,943	2.4%
Charges from other departments	1,427,587	1,444,000	1,534,140	479,713	2,013,853	31.3%
Charges to other departments	(372,976)	(375,000)	(375,000)	375,000	-	-100.0%
Total Operating Expense	43,116,165	44,399,000	45,373,547	1,918,249	47,291,796	4.2%
Non Operating Expense						
Interest on bonded debt	5,368,897	5,300,000	5,365,000	732,000	6,097,000	13.6%
Amortization of debt expense	162,722	200,000	295,000	50,000	345,000	16.9%
Other interest expense	1,429,940	1,480,000	1,800,000	(122,000)	1,678,000	-6.8%
Interest during construction	(1,084,232)	(1,000,000)	(500,000)	(430,000)	(930,000)	86.0%
Total Non Operating Expense	5,877,327	5,980,000	6,960,000	230,000	7,190,000	3.3%
Total Expenses (Function Cost)	48,993,492	50,379,000	52,333,547	2,148,249	54,481,796	4.1%
Net Income	12,455,948	11,623,000	8,687,453	(1,521,249)	7,166,204	-17.5%
Appropriation:						
Total Expenses			52,333,547	2,148,249	54,481,796	
Less: Non Cash items						
Depreciation and amortization			11,427,000	83,000	11,510,000	
Amortization of debt expense			295,000	50,000	345,000	
Interest during construction			(500,000)	(430,000)	(930,000)	
Total Non-Cash			11,222,000	(297,000)	10,925,000	
Amount to be Appropriated (cash expenses)			41,111,547	2,445,249	43,556,796	

Anchorage Water Utility Reconciliation from 2016 Approved Budget to 2017 Proposed Budget

		Positions		
	Appropriation	FT	PT	T
2016 Approved Budget	52,333,547	282	1	11
Transfers (to)/from Other Agencies				
- Charges to other departments - Remove GIS COE	375,000	-	-	-
- Charges from other departments	479,713	-	-	-
Debt Service Charges				
- Interest	610,000	-	-	-
- Amortization of Debt Expense	50,000	-	-	-
- AFUDC	(430,000)	-	-	-
Changes in Existing Programs/Funding for 2017				
- Salary and benefits adjustments	757,307	-	-	-
- Depreciation	83,000	-	-	-
- MUSA	390,000	-	-	-
2017 Continuation Level	54,648,567	282	1	11
2017 Proposed Budget Changes				
- Overtime	5,000	-	-	-
- Software & Hardware Maintenance	67,195	-	-	-
- Telecommunications	22,350	-	-	-
- External Audit Costs	2,500	-	-	-
- Building Rent	32,130	-	-	-
- Materials, Supplies, Tools, Misc	42,944	-	-	-
- Travel	14,500	-	-	-
- APU Glacier Study	25,000	-	-	-
- Arctic Bldg Landscape and security	75,000	-	-	-
- Host WWMW Spring 2017	3,350	-	-	-
- Remove GIS COE Expenses	(455,600)	-	-	-
- Remove GIS COE Travel Expenses	(14,000)	-	-	-
- Treatment Plant Operator - Girdwood (11% Water, 89% Wastewater)	12,860	1	-	-
2017 Proposed Budget	54,481,796	283	1	11
2017 Budget Adjustment for Accounting Transactions (Appropriation)				
- Depreciation and amortization	(11,510,000)	-	-	-
- Amortization of debt expense	(345,000)	-	-	-
- Interest during construction	930,000	-	-	-
- Anchorage Wastewater Utility; add line cleaning crew.	-	-	-	-
2017 Proposed Budget (Appropriation)	43,556,796	283	1	11

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

Anchorage Water Utility
2017 - 2022 Capital Improvement Program
(in thousands)

Project Category	2017	2018	2019	2020	2021	2022	Total
ADOT-MOA Emergency	2,917	2,824	2,032	2,335	3,908	3,897	17,913
Facility Master Plan	1,100	-	650	-	52	250	2,052
IT Hardware/Software	1,795	2,145	1,445	1,520	1,553	1,553	10,011
Miscellaneous Equipment	880	850	850	850	850	850	5,130
Other Plant & Facilities	860	-	-	400	-	-	1,260
Transmission/Distribution	23,065	23,704	22,315	25,165	23,924	26,825	144,998
Vehicles	966	1,097	868	880	1,264	1,276	6,351
Water Plant	1,380	2,000	4,700	2,850	3,204	1,104	15,238
Total	32,963	32,620	32,860	34,000	34,755	35,755	202,953

Funding Source	2017	2018	2019	2020	2021	2022	Total
Debt	21,963	23,620	24,860	28,000	29,755	30,755	158,953
Equity/Operations	11,000	9,000	8,000	6,000	5,000	5,000	44,000
Grants	-	-	-	-	-	-	-
Total	32,963	32,620	32,860	34,000	34,755	35,755	202,953

Anchorage Water Utility 2017 Capital Improvement Budget

(in thousands)

Project Title	Debt *	State/Fed Grant	Equity/Operations *	Total
ADOT-MOA Emergency				
ADOT-MOA-Emergency -Water	-	-	2,917	2,917
ADOT-MOA Emergency	-	-	2,917	2,917
Facility Master Plan				
Depreciation Study	-	-	100	100
Water Quality_Hydraulic Modeling Master Plan	-	-	1,000	1,000
Facility Master Plan	-	-	1,100	1,100
IT Hardware/Software				
Customer Information System Enhancements	-	-	650	650
Geographic Information System Application Development	-	-	120	120
Hydraulic Model Upgrades	-	-	50	50
Information Technology Infrastructure	-	-	600	600
Miscellaneous Information Technology Systems	-	-	250	250
Work Management Software	-	-	125	125
IT Hardware/Software	-	-	1,795	1,795
Miscellaneous Equipment				
Facility Equipment - Water	-	-	100	100
SCADA Equipment	-	-	750	750
Updated Title 18 Signage	-	-	30	30
Miscellaneous Equipment	-	-	880	880
Other Plant & Facilities				
3000 Arctic Carpet Improvements	-	-	500	500
3000 Arctic Field Services Office Upgrade	-	-	30	30
3000 Arctic First Floor IT Upgrades	-	-	50	50
3000 Arctic HVAC Upgrades	-	-	200	200
3000 Arctic NE Stairwell Renovations	-	-	30	30
TRT Admin Space	-	-	50	50
Other Plant & Facilities	-	-	860	860
Transmission/Distribution				
486 Zone_Debarr Intertie	1,200	-	-	1,200
Becharof_St_Rakof_to_Chirikof_Water_Rehab	280	-	510	790
Downtown to Kincaid Water Transmission Main	11,813	-	-	11,813
E_3rd_Latouche_to_Ingra_Water_Rehab	900	-	-	900
E_43rd_Thorne_Dale_to_Piper_Water_Rehab	-	-	567	567
Hillcrest_Drive_Water_Rehab	500	-	-	500
Jewel Lake Intertie	300	-	-	300
Military Reservoir 25	1,000	-	-	1,000
Muldoon_Curve_East_Intertie	270	-	-	270
Plant Oversize Improvement-Water	-	-	25	25
Port Flushing Facility / Sample Station	500	-	-	500
Reservoir Rehab	3,250	-	-	3,250
SW 260 Zone Capacity Improvements	1,000	-	-	1,000
Upper Eagle River Fire Flow	800	-	-	800
Water Upgrades Preliminary Engineering	150	-	-	150
Transmission/Distribution	21,963	-	1,102	23,065

Anchorage Water Utility
2017 Capital Improvement Budget
(in thousands)

Project Title	Debt *	State/Fed Grant	Equity/ Operations *	Total
Vehicles				
Dump Trucks (94601, 94602, 94603)	-	-	600	600
Vehicles - Water	-	-	366	366
Vehicles	-	-	966	966
Water Plant				
Facility Plant - Water	-	-	1,130	1,130
Security Improv-WTR	-	-	250	250
Water Plant	-	-	1,380	1,380
Total	21,963	-	11,000	32,963

* Debt and Equity/Operations funding amounts by category are estimates and subject to change as actual loans are awarded by the State of Alaska.

Anchorage Water Utility Statement of Cash Sources and Uses

	2015 Actual	2016 Proforma	2017 Proposed
Sources of Cash Funds			
Operating Income	25,290,826	23,888,000	21,747,030
Depreciation, net of amortization	10,191,049	11,077,000	11,510,000
Transfer from Escrow Account	1,881,616	-	-
Grant Proceeds	87,500	-	-
Special Assessment Proceeds	282,443	300,000	300,000
State of Alaska Loan Proceeds	9,378,767	9,500,000	9,700,000
Bond/Other Loan Proceeds	11,000,000	8,000,000	57,000,000
Miscellaneous Non-Operating Revenues	(37,710)	130,000	150,000
Interest Received	155,180	600,000	610,000
Changes in Assets and Liabilities	(710,916)	751,538	(1,054,420)
Total Sources of Cash Funds	57,518,755	54,246,538	99,962,610
Uses of Cash Funds			
Capital Construction	27,884,913	30,068,200	29,467,710
Debt Principal Payment	8,982,338	9,241,407	41,287,428
Debt Interest Payments	6,776,377	6,839,643	6,805,472
MUSA	7,113,584	7,314,997	7,670,000
Total Uses of Cash Funds	50,757,212	53,464,247	85,230,610
Net Increase (Decrease) in Cash Funds	6,761,543	782,291	14,732,000
Cash Balance, January 1	29,396,166	36,157,709	36,940,000
Cash Balance, December 31	36,157,709	36,940,000	51,672,000
Detail of Cash and Investment Funds			
General Cash Less Customer Deposits	34,125,523	35,584,000	33,209,000
Construction Cash	1,524,082	956,000	18,063,000
Operating Fund Investment & Customer Deposits	508,104	400,000	400,000
Cash Balance, December 31	36,157,709	36,940,000	51,672,000

Anchorage Wastewater Utility 8 Year Summary

(\$ in thousands)

Financial Overview	2015	2016	2017	2018	2019	2020	2021	2022
	Actuals	Proforma	Proposed	Forecast				
Revenues	51,586	52,055	56,765	59,745	64,385	68,285	71,025	74,555
Expenses and Transfers	44,718	47,291	51,562	54,010	57,000	60,010	61,730	65,140
Net Income (Loss) - Regulatory	6,868	4,764	5,203	5,735	7,385	8,275	9,295	9,415
Dividend to General Government	-	-	-	-	-	-	-	-
Increase in Net Assets	6,868	4,764	5,203	5,735	7,385	8,275	9,295	9,415
 Budgeted Positions*	289	294	295	295	295	295	295	295
Capital Improvement Program	33,345	34,200	33,650	36,362	36,710	36,900	37,000	37,000
New Debt	8,888	15,000	25,349	6,000	84,000	6,000	6,000	109,000
Net Plant (12/31)	402,356	411,691	426,503	439,868	457,152	475,388	487,969	502,778
Net Assets (12/31)	94,167	98,931	104,134	109,869	117,254	125,529	134,824	144,239
 Operating Cash	26,295	28,333	26,606	24,108	23,778	22,334	23,199	25,427
Construction Cash Pool	613	283	7,946	-	56,351	37,192	9,085	77,349
Restricted Cash	2,146	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Total Cash	29,054	30,116	36,052	25,608	81,629	61,026	33,784	104,276
 IGCs - General Government	1,421	1,573	2,014	2,014	2,014	2,014	2,014	2,014
MUSA	5,286	5,705	5,840	6,050	6,240	6,490	6,750	6,930
CCP Borrowings from Gen'l Govt.	-	-	-	4,324	-	-	-	-
Total Outstanding LT Debt	166,515	175,620	235,992	233,261	308,428	302,843	296,903	393,576
Total Annual Debt Service	10,216	10,476	12,264	14,877	16,235	20,078	20,232	22,178
Debt Service Coverage (Bond)	4.91	4.79	4.17	2.88	2.85	2.26	2.40	2.23
Debt Service Coverage (Total)	1.82	1.74	1.66	1.49	1.58	1.41	1.47	1.45
Debt/Equity Ratio	64 / 36	64 / 36	69 / 31	68 / 32	72 / 28	71 / 29	69 / 31	73 / 27
Rate Change Percent	0.00%	0.00%	9.50%	5.10%	7.10%	5.50%	4.50%	4.30%
Single Family Rate	40.87	40.87	44.75	47.04	50.37	53.15	55.54	57.92
 Statistical/Performance Trends								
Number of Accounts	56,997	57,139	57,282	57,426	56,816	56,958	57,100	57,243
Average Treatment (MGD)	27.01	27.08	27.15	27.21	27.28	27.35	27.42	27.49
Miles of Wastewater Lines	757	759	761	763	765	767	768	770

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

Anchorage Wastewater Utility Statement of Revenues and Expenses

	2015 Actuals	2016 Proforma	2016 Approved	17 v 16 \$ Change	2017 Proposed	17 v 16 % Change
Operating Revenue						
Charges for Services	50,304,246	50,413,900	50,400,000	4,900,000	55,300,000	9.7%
Miscellaneous	1,067,780	963,100	970,000	-	970,000	0.0%
Total Operating Revenue	51,372,026	51,377,000	51,370,000	4,900,000	56,270,000	9.5%
Non Operating Revenue						
Investment Income	239,607	663,000	290,000	190,000	480,000	65.5%
Other Income	(25,760)	15,000	15,000	-	15,000	0.0%
Total Non Operating Revenue	213,847	678,000	305,000	190,000	495,000	62.3%
Total Revenue	51,585,873	52,055,000	51,675,000	5,090,000	56,765,000	9.9%
Operating Expenses						
Labor						
Labor and Benefits	15,270,525	15,995,000	16,506,261	310,829	16,817,090	1.9%
Overtime	390,687	402,000	414,500	5,000	419,500	1.2%
Total Labor	15,661,212	16,397,000	16,920,761	315,829	17,236,590	1.9%
Non Labor						
Non Labor	10,971,169	10,380,000	10,472,948	1,086,082	11,559,030	10.4%
Travel	41,157	55,000	68,000	14,500	82,500	21.3%
Transfers (MUSA and gross receipts)	5,285,575	5,705,000	5,440,000	400,000	5,840,000	7.4%
Depreciation and Amortization	8,366,414	9,169,000	9,750,000	(100,000)	9,650,000	-1.0%
Total Non Labor	24,664,315	25,309,000	25,730,948	1,400,582	27,131,530	5.4%
Total Direct Cost	40,325,527	41,706,000	42,651,709	1,716,411	44,368,120	4.0%
Charges from other departments	1,421,400	1,573,000	1,545,604	468,604	2,014,208	30.3%
Total Operating Expense	41,746,927	43,279,000	44,197,313	2,185,015	46,382,328	4.9%
Non Operating Expense						
Interest on bonded debt	3,031,958	3,000,000	3,068,000	956,000	4,024,000	31.2%
Amortization of debt expense	29,432	32,000	32,000	30,000	62,000	93.8%
Other interest expense	1,344,865	1,450,000	2,100,000	(496,000)	1,604,000	-23.6%
Interest during construction	(1,435,149)	(470,000)	(450,000)	(60,000)	(510,000)	13.3%
Total Non Operating Expense	2,971,106	4,012,000	4,750,000	430,000	5,180,000	9.1%
Total Expenses (Function Cost)	44,718,033	47,291,000	48,947,313	2,615,015	51,562,328	5.3%
Net Income	6,867,840	4,764,000	2,727,687	2,474,985	5,202,672	90.7%
Appropriation						
Total Expenses			48,947,313	2,615,015	51,562,328	
Less: Non Cash items						
Depreciation and amortization			9,750,000	(100,000)	9,650,000	
Amortization of debt expense			32,000	30,000	62,000	
Interest during construction			(450,000)	(60,000)	(510,000)	
Total Non-Cash			9,332,000	(130,000)	9,202,000	
Amount to be Appropriated (cash expenses)			39,615,313	2,745,015	42,360,328	

Anchorage Wastewater Utility Reconciliation from 2016 Approved Budget to 2017 Proposed Budget

		Positions		
	Appropriation	FT	PT	T
2016 Approved Budget	48,947,313	282	1	11
Transfers (to)/from Other Agencies				
- Charges from other departments	468,604	-	-	-
Debt Service Charges				
- Interest	460,000	-	-	-
- Amortization of Debt Expense	30,000	-	-	-
- AFUDC	(60,000)	-	-	-
Changes in Existing Programs/Funding for 2017				
- Salary and benefits adjustments	206,779	-	-	-
- Depreciation	(100,000)	-	-	-
- MUSA	400,000	-	-	-
2017 Continuation Level	50,352,696	282	1	11
2017 Proposed Budget Changes				
- Travel	14,500	-	-	-
- Host WWMW Spring 2017	3,350	-	-	-
- Treatment Plant Operator - Girdwood (11% Water, 89% Wastewater)	104,050	1	-	-
- Overtime	5,000	-	-	-
- Software & Hardware Maintenance	67,198	-	-	-
- Telecommunications	21,650	-	-	-
- External Audit Costs	2,500	-	-	-
- Building Rent	66,560	-	-	-
- Materials, Supplies, Tools, Misc	154,439	-	-	-
- Chemicals	365,385	-	-	-
- Utilities	105,000	-	-	-
- Fuel & Disposal Fees - Large Diameter Pipe Cleaning	300,000	-	-	-
2017 Proposed Budget	51,562,328	283	1	11
2017 Budget Adjustment for Accounting Transactions (Appropriation)				
- Depreciation and amortization	(9,650,000)	-	-	-
- Amortization of debt expense	(62,000)	-	-	-
- Interest during construction	510,000	-	-	-
2017 Proposed Budget (Appropriation)	42,360,328	283	1	11

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

Anchorage Wastewater Utility
2017 - 2022 Capital Improvement Program
(in thousands)

Project Category	2017	2018	2019	2020	2021	2022	Total
ADOT-MOA Emergency	3,000	4,883	2,285	4,928	2,347	4,000	21,443
Collection System	19,369	23,136	13,480	18,727	24,644	24,711	124,067
Facility Master Plan	600	-	-	-	702	250	1,552
IT Hardware/Software	1,820	2,170	1,455	1,535	1,535	1,535	10,050
Miscellaneous Equipment	850	850	850	850	850	850	5,100
Other Plant & Facilities	2,115	-	-	-	-	-	2,115
Vehicles	966	893	868	880	892	904	5,403
Wastewater Plant	4,930	4,430	17,772	9,980	6,030	4,750	47,892
Total	33,650	36,362	36,710	36,900	37,000	37,000	217,622

Funding Source	2017	2018	2019	2020	2021	2022	Total
Debt	23,650	26,362	26,710	26,900	28,000	29,000	160,622
Equity/Operations	10,000	10,000	10,000	10,000	9,000	8,000	57,000
Grants	-	-	-	-	-	-	-
Total	33,650	36,362	36,710	36,900	37,000	37,000	217,622

Anchorage Wastewater Utility
2017 Capital Improvement Budget
(in thousands)

Project Title	Debt *	State/Fed Grant	Equity/Operations *	Total
ADOT-MOA Emergency				
ADOT-MOA-Emergency - Sewer	-	-	3,000	3,000
ADOT-MOA Emergency	-	-	3,000	3,000
Collection System				
1st_Ave_Denali-F_Streets_Swr_Rehab	525	-	-	525
2nd-4th_Ave_Ingra-F_Streets_Swr_Rehab	640	-	-	640
4th-5th_Ave_Gambell-B_Streets_Swr_Rehab	715	-	-	715
5th-6th_Ave_Cordova-C_Streets_Swr_Rehab	780	-	-	780
5th-6th_Ave_Denali-Cordova_Streets_Swr_Rehab	200	-	-	200
5th-7th_Ave_Coastal-Ocean_Streets_Swr_Rehab	280	-	-	280
6th_8th_Ave_LM_Alley-ARRC_Swr_Rehab	160	-	-	160
Blueberry Sewer Rehabilitation	1,000	-	-	1,000
Brayton_Drive_Interceptor_Cxn_Rehab	100	-	-	100
D-2-4_Trunk_Improvements	750	-	-	750
Farm Ave Swr Rehab	1,471	-	-	1,471
Girdwood I&I	500	-	-	500
King Street Septage Receiving Station	1,623	-	-	1,623
Lake_Otis_Chester_Creek_Sewer_Rehab	250	-	-	250
Mills_Drive_Sewer_Rehab	1,500	-	-	1,500
Pawn_Place_Sewer_Upgrade	200	-	-	200
Plant Oversize and Betterments - Sewer	25	-	-	25
PS 12 Force Mains	1,500	-	-	1,500
PS 2 Force Main	500	-	-	500
PS 29 R&R	550	-	-	550
PS 52 Improvements	2,000	-	-	2,000
SE_Bragaw_Glenn_Sewer_Upgrades	1,500	-	-	1,500
Seppala Drive SS Main Recon_W 30th Ave_NLB	670	-	-	670
Sewer Rehabilitation Preliminary Engineering	430	-	-	430
W 72nd Ave Trunk Rehab	1,500	-	-	1,500
Collection System	19,369	-	-	19,369
Facility Master Plan				
Depreciation Study	-	-	100	100
ERWWTF Fac Plan	-	-	500	500
Facility Master Plan	-	-	600	600
IT Hardware/Software				
Customer Information System Enhancements	-	-	650	650
Geographic Information Systems Application Development	-	-	120	120
Hydraulic Model Upgrades	-	-	50	50
Information Technology Infrastructure	-	-	600	600
Miscellaneous Information Technology Systems	-	-	250	250
Water Qual. Mgmt and Environmental Compliance Monitoring Reporting	-	-	25	25
Work Management System	-	-	125	125
IT Hardware/Software	-	-	1,820	1,820

Anchorage Wastewater Utility
2017 Capital Improvement Budget
(in thousands)

Project Title	Debt *	State/Fed Grant	Equity/Operations *	Total
Miscellaneous Equipment				
Facility Equipment - Sewer	-	-	100	100
SCADA Equipment	-	-	750	750
Miscellaneous Equipment	-	-	850	850
Other Plant & Facilities				
King St Main Building 2nd Floor Office Improvements	-	-	615	615
King Street - Fuel Storage Facility Improvements	-	-	1,500	1,500
Other Plant & Facilities	-	-	2,115	2,115
Vehicles				
Ash Dump (94204, 94605) Dump (94604)	-	-	600	600
Vehicles - Sewer	-	-	366	366
Vehicles	-	-	966	966
Wastewater Plant				
AWWTF 2 inch raceway scrubber	-	-	125	125
AWWTF Clarifiers Upgrades	1,801	-	199	2,000
AWWTF Exterior Energy Upgrades	-	-	200	200
AWWTF Reroof	750	-	-	750
AWWTF Scum Lines	-	-	125	125
AWWTF Storage	1,100	-	-	1,100
Facility PLANT - Sewer	630	-	-	630
Wastewater Plant	4,281	-	649	4,930
Total	23,650	-	10,000	33,650

* Debt and Equity/Operations funding amounts by category are estimates and subject to change as actual loans are awarded by the State of Alaska.

Anchorage Wastewater Utility Statement of Cash Sources and Uses

	2015 Actual	2016 Proforma	2017 Proposed
Sources of Cash Funds			
Operating Income	14,917,995	13,803,000	16,189,300
Depreciation, net of amortization	8,366,414	9,169,000	9,650,000
Transfer from Escrow Account	2,317,531	-	-
Grant Proceeds	4,341,129	-	-
Special Assessment Proceeds	416,238	300,000	300,000
State of Alaska Loan Proceeds	5,388,405	6,000,000	6,000,000
Bond/Other Loan Proceeds	3,500,000	9,000,000	61,000,000
Miscellaneous Non-Operating Revenues	(25,760)	15,000	15,000
Interest Received	339,935	463,000	480,000
Changes in Assets and Liabilities	225,594	(325,186)	(1,120,544)
Total Sources of Cash Funds	39,787,481	38,424,814	92,513,756
Uses of Cash Funds			
Capital Construction	20,977,313	21,230,000	27,437,000
Debt Principal Payment	5,833,205	5,894,889	48,231,253
Debt Interest Payments	4,584,788	4,534,334	4,609,000
MUSA	5,285,575	5,704,269	5,840,000
Total Uses of Cash Funds	36,680,881	37,363,492	86,117,253
Net Increase (Decrease) in Cash Funds	3,106,600	1,061,322	6,396,503
Cash Balance, January 1	25,948,078	29,054,678	30,116,000
Cash Balance, December 31	29,054,678	30,116,000	36,512,503
Detail of Cash and Investment Funds			
General Cash Less Customer Deposits	26,294,975	28,333,000	27,067,000
Construction Cash	613,003	283,000	7,945,503
Operating Fund Investment & Customer Deposits	2,146,700	1,500,000	1,500,000
Cash Balance, December 31	29,054,678	30,116,000	36,512,503

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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 \$512 million that delivers nearly 24 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 to 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 \$393 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 46% 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 2015, the Asplund Wastewater Treatment Facility treated an average of 25.3 million gallons per day (mgd). The Eagle River Wastewater Treatment Facility treated an average 1.34 mgd and the Girdwood Wastewater Treatment Facility treated 0.36 mgd. The three facilities have a combined design capacity of 61.1 mgd. The wastewater collection system has approximately 755 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 underwent major renovations in 1982, and expanded and upgraded again in 1989.

A facilities plan update was prepared in 1999. The 1999 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 over \$40 million worth of improvements to the solids handling, headworks, administration, laboratory, incineration, and thickening processes and control and power systems. AWWU undertook a majority of the recommended Asplund projects. These projects, along with careful operation, have made Asplund a modern, state-of-the-art treatment facility. In 2014, an updated Facilities plan was prepared for Asplund. The plan recommends over \$17M of additional investment in Asplund over ten years to rehabilitate and maintain aging infrastructure. ASU continues to maintain its smaller treatment plants. Additional projects at 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, 83 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.