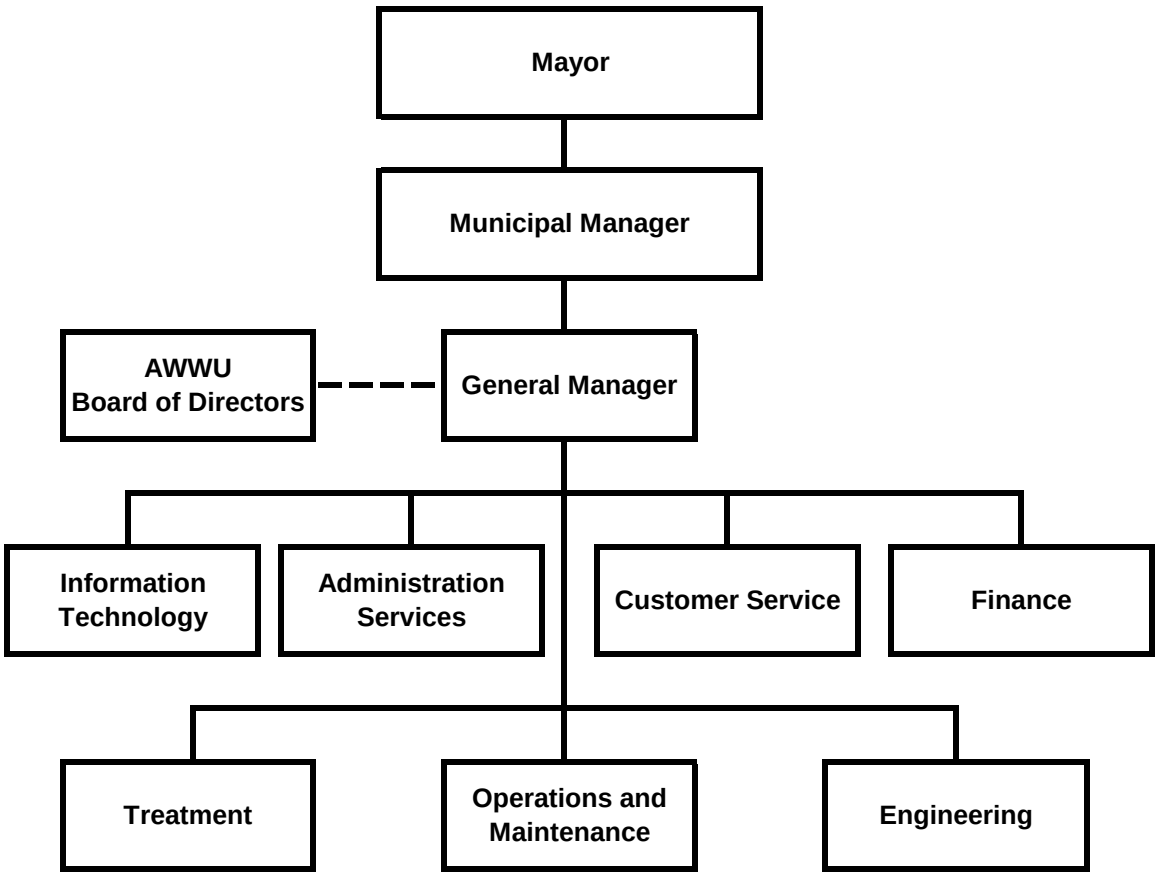
Anchorage Water & Wastewater Utility



Anchorage Water & Wastewater
Organizational Overview

Overview
The Anchorage Water & 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 56,000 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 57,000 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 86% 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. 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 134% from $355.2 million to $831 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 119% from $301.5 million to $660 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

The General Manager's office is responsible for overall operation of AWWU that is organized into 7 divisions:

- Administrative Services Division – provides for training, safety, and internal and external communications.
- Customer Service Division – responsible for responding to customer inquiries, billing, and collections for both utilities, issuing of permits, and field service functions.
- Engineering Division – responsible for development and execution of AWWU's capital program and for system planning.
- Finance Division – responsible for all general ledger and plant accounting, preparation of utility budgets and financial statements, and regulatory filings.
- Information Technology Division – provides support for all of AWWU's computers, network, and software systems.
- 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 supervisory control and data acquisition (SCADA) system.
- Treatment Division – responsible for day-to-day operation of the treatment facilities and water distribution system and for maintaining compliance with all state and federal regulations.

Anchorage Water & Wastewater Utility
Business Plan

Vision
Excellence through innovation.

Mission
Providing safe and reliable water and wastewater service today and into the future.

Message
Anchorage Water & Wastewater Utility (AWWU) is investing to ensure reliable service, safeguard public health, and protect the environment, long into the future.

Services
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 prepared an updated strategic plan in 2016. The plan includes 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	2017		Past Years					
		Q2	Q1	2016	2015	2014	2013	2012	2011
Safe Drinking Water Act Compliance (%)	100	100	100	100	100	100	100	100	100
Clean Water Act (NPDES permit) Compliance (%)	100			100	100				100
-Asplund		100	100	100	100	100	99.8	100	
-Eagle River		100	100	99.7	100	100	100	99.5	
-Girdwood		100	100	99.7	99.5	99.8	99.3	97.5	
Clean Air Act Compliance (%) (Asplund Incinerator)	100	100	100	99.99	99.998	100	99.998	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)	2017 (monthly average)	4th Q 2017 (monthly average)	3rd Q 2017 (monthly average)	2nd Q 2017 (monthly average)	1st Q 2017 * (monthly average)	Historical monthly average				
							2016	2015	2014	2013	2012
Planned Outages											
<4 hours	<20	**5**			10	0	5	18	27	25	18
4-12 hours	<20	**94**			174	13	8	23	37	86	47
>12 hours	0	**0**			0	0	0.2	0.2	0.6	0.3	0.2
Unplanned Outages											
<4 hours	<20	**17**			23	10	92	41	40	27	46
4-12 hours	<50	**41**			24	58	22	33	44	33	38
>12 hours	0	**3.5**			0	7	5	0.2	3	8	4

* 1st Quarter 2017 was originally reported using an incomplete data set.

Measure #3: Sanitary Sewer Overflows (monthly)

Goal	2017				Historical monthly average					
	Q4	Q3	Q2	Q1	2016	2015	2014	2013	2012	2011
<1.5			0.33	1.3	1.48	1.58	1.75	2.25	1.83	1.91

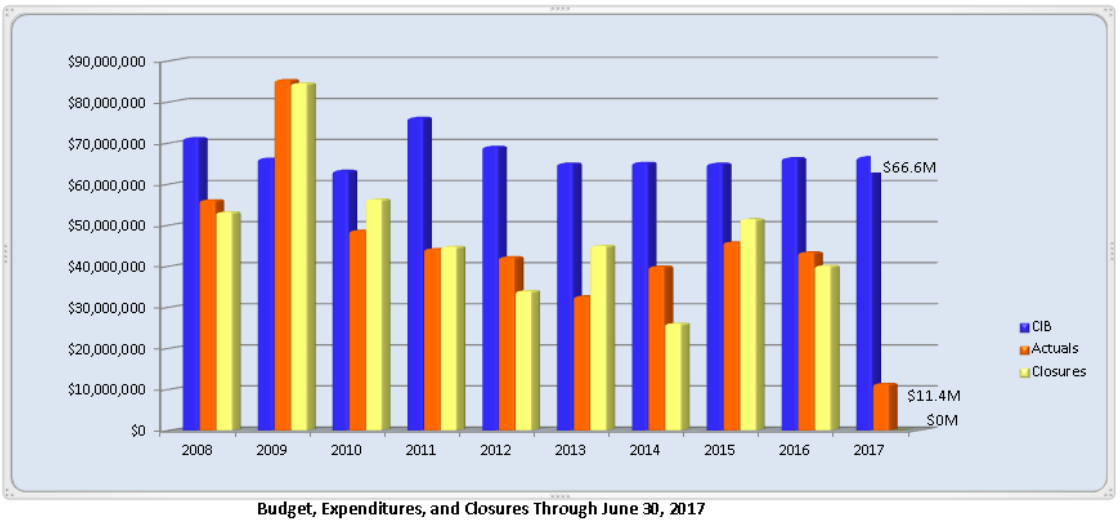
Measure #4: Number of reportable injuries and accidents

Goal	2016	2015	2014	2013	2012	2011	2010
<4.60		6.08	5.91	4.47	5.2	4.4	1.72

Note: Bureau of Labor Statistics (BLS) will normally post the previous year's incidence rate during the months of June or July. AWWU falls within the utilities sector of electric power generation, transmission and distribution; natural gas distribution; and water, sewer, and other systems.

Measure #5: Execution of Capital Improvement Budget

Goal	2017	Historical Information					
		2016	2015	2014	2013	2012	2011
75%	17%	65%	71%	61%	56%	65%	61%



Budget, Expenditures, and Closures Through June 30, 2017

Measure #6: Debt to Equity Ratio

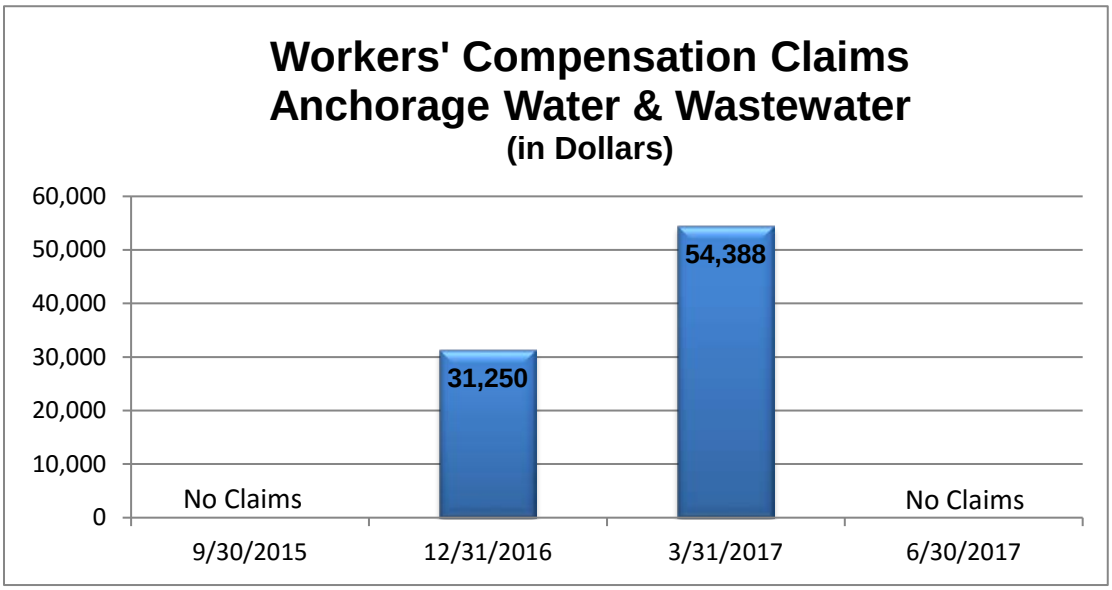
	Goal	2016 *	2015	2014	2013	2012	2011	2010
Water Utility	67/33	62/38	63/37	62/38	65/35	67/33	70/30	70/30
Wastewater Utility	67/33	67/33	67/33	65/35	67/33	66/34	68/32	69/31

*2016 is un-audited draft.

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.



Anchorage Water & 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 845 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 759 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 2016, AWWU was carrying approximately $402.7 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 2004-2017

	Calculated Rate Increase in RRS		Requested Permanent Rate Increase		Approved/Stipulated Permanent Rate Increase		
Rate Year	AWU	ASU	AWU	ASU	AWU	ASU	Reason For Requesting Increases Less Than The Calculated Increases
2004	14.20%	8.10%	14.20%	8.10%	13.60%	8.10%	The calculated increases were requested due to the change in the MUSA calculation.
2005	7.20%	6.80%	7.20%	6.80%	7.80%	3.00%	The calculated increases were requested due to the change in the MUSA calculation.
2006	12.40%	15.00%	8.90%	10.60%	6.50%	10.60%	Policy direction to limit rate increases requested to reduce impact on customers.
2007	15.00%	17.80%	14.50%	13.00%	7.00%	9.50%	Policy direction to limit rate increases requested to reduce impact on customers.
2008	-	-	-	-	-	-	Rate changes were not requested by AWWU for 2008.
2009	8.70%	8.00%	7.00%	6.50%	5.60%	6.50%	Policy direction to limit rate increases requested to reduce impact on customers.
2010	7.00%	9.50%	2.50%	2.50%	2.50%	2.50%	Policy direction to limit rate increases requested to reduce impact on customers.
2011	18.50%	26.20%	8.00%	15.00%	8.00%	15.00%	Policy direction to limit rate increases requested to reduce impact on customers.
2012	13.00%	16.60%	6.00%	11.00%	6.00%	11.00%	Policy direction to limit rate increases requested to reduce impact on customers.
2013	9.10%	6.80%	6.00%	4.50%	6.00%	4.50%	Policy direction to limit rate increases requested to reduce impact on customers.
2014	5.60%	6.70%	4.00%	5.50%	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.
2017	-	11.90%	-	9.50%	-	9.50%	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.

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 & 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 & Wastewater Utility
Workforce Projections

Division	2016	2017	2018	2019	2020	2021	2022	2023
General Manager	2	2	2	2	2	2	2	2
Administrative Services	5	5	5	5	5	5	5	5
Customer Service	41	41	41	41	41	41	41	41
Engineering	41	41	41	41	41	41	41	41
Finance	21	21	21	21	21	21	21	21
Information Technology	18	18	18	18	18	18	18	18
Operations and Maintenance	91	91	91	91	91	91	91	91
Treatment	63	64	64	64	64	64	64	64
Total Full Time	**282**	**283**	**283**	**283**	**283**	**283**	**283**	**283**
Part time	**1**	**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	**294**	**295**	**295**	**295**	**295**	**295**	**295**	**295**

Anchorage Water Utility
8 Year Summary
($ in thousands)

Financial Overview	2016 Actuals	2017 Proforma	2018 Approved	2019	2020	2021	2022	2023
				Forecast				
Revenues	62,375	60,349	62,163	65,506	69,576	73,506	77,716	81,456
Expenses and Transfers	52,879	52,941	56,539	59,460	60,840	62,480	64,120	68,340
Net Income (Loss) - Regulatory	**9,496**	**7,408**	**5,624**	**6,046**	**8,736**	**11,026**	**13,596**	**13,116**
Dividend to General Government	-	-	-	1,860	2,000	2,880	3,640	4,490
Increase in Net Assets	**9,496**	**7,408**	**5,624**	**4,186**	**6,736**	**8,146**	**9,956**	**8,626**
Budgeted Positions*	294	295	295	295	295	295	295	295
Capital Improvement Program	32,226	32,963	32,620	32,860	34,000	34,755	35,755	37,000
New Debt	15,498	18,700	18,900	51,000	10,300	10,500	10,800	77,200
Net Capital Assets (12/31)	543,017	557,387	572,332	586,966	602,177	617,359	632,844	648,740
Net Position (12/31)	139,886	147,294	152,918	157,104	163,840	171,986	181,942	190,568
Operating Cash	36,343	34,750	32,877	29,603	27,143	26,124	27,709	25,734
Construction Cash Pool	4,223	4,455	268	28,119	14,444	142	-	35,665
Restricted Cash	362	362	362	362	362	362	362	362
Total Cash	**40,928**	**39,567**	**33,507**	**58,084**	**41,949**	**26,628**	**28,071**	**61,761**
IGCs - General Government	1,105	1,834	2,597	2,597	2,597	2,597	2,597	2,597
MUSA	7,315	7,991	8,280	8,510	8,730	8,960	9,190	9,420
CCP Borrowings from Gen'l Govt.	-	-	-	-	-	-	-	-
Total Outstanding LT Debt	227,119	214,163	222,190	261,400	257,545	253,269	249,468	309,097
Total Annual Debt Service	16,140	16,169	18,110	20,841	22,831	23,285	22,958	28,235
Debt Service Coverage (Bond)	3.22	2.71	2.64	2.35	2.24	2.47	2.72	2.15
Debt Service Coverage (Total)	1.85	1.55	1.35	1.28	1.30	1.39	1.54	1.34
Debt/Equity Ratio	62 / 38	59 / 41	59 / 41	63 / 37	61 / 39	60 / 40	58 / 42	62 / 38
Rate Change Percent	0.0%	0.0%	3.0%	5.0%	6.0%	6.0%	6.0%	4.2%
Single Family Rate	49.70	49.70	51.19	53.75	56.97	60.39	64.02	66.71
Statistical/Performance Trends								
Number of Accounts	56,294	56,435	56,576	56,717	56,859	57,001	57,144	57,287
Average Treatment (MGD)	22.7	22.8	22.8	22.9	22.9	23.0	23.0	23.1
Miles of Water Lines	845	847	849	851	853	856	858	860
Number of Public Hydrants	6,027	6,042	6,057	6,072	6,087	6,103	6,118	6,133

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

Anchorage Water Utility
Statement of Revenues and Expenses

	2016 Actuals	2017 Proforma	2017 Revised	18 v 17 $ Change	2018 Approved	18 v 17 % Change
Operating Revenue						
Charges for services	59,940,423	58,464,000	59,700,000	517,000	60,217,000	0.9%
Miscellaneous	1,325,422	1,230,000	1,188,000	73,000	1,261,000	6.1%
Total Operating Revenue	**61,265,845**	**59,694,000**	**60,888,000**	**590,000**	**61,478,000**	1.0%
Non Operating Revenue						
Investment Income	690,983	655,000	610,000	70,000	680,000	11.5%
Other Income	418,388	-	150,000	(145,000)	5,000	-96.7%
Total Non Operating Revenue	**1,109,371**	**655,000**	**760,000**	**(75,000)**	**685,000**	**-9.9%**
Total Revenue	**62,375,216**	**60,349,000**	**61,648,000**	**515,000**	**62,163,000**	**0.8%**
Operating Expenses						
Labor						
Labor and Benefits	19,084,688	15,960,000	16,420,727	915,845	17,336,572	5.6%
Overtime	561,431	705,000	453,000		453,000	0.0%
Total Labor	19,646,119	16,665,000	16,873,727	915,845	17,789,572	5.4%
Non Labor						
Non Labor	8,632,876	8,921,000	9,141,716	(2,900)	9,138,816	0.0%
Travel	52,296	80,000	82,500	2,900	85,400	3.5%
Transfers (MUSA and gross receipts)	7,314,997	7,991,023	7,991,023	288,977	8,280,000	3.6%
Depreciation and Amortization	10,838,760	11,260,000	11,510,000	210,000	11,720,000	1.8%
Total Non Labor	26,838,929	28,252,023	28,725,239	498,977	29,224,216	1.7%
Total Direct Cost	**46,485,048**	**44,917,023**	**45,598,966**	**1,414,822**	**47,013,788**	**3.1%**
Charges from other departments	1,480,296	1,834,000	2,140,605	456,188	2,596,793	21.3%
Charges to other departments	(375,000)	-	-		-	0.0%
Total Operating Expense	**47,590,344**	**46,751,023**	**47,739,571**	**1,871,010**	**49,610,581**	**3.9%**
Non Operating Expense						
Interest on bonded debt	5,217,686	5,120,000	6,097,000	(599,000)	5,498,000	-9.8%
Amortization of debt expense	141,357	200,000	345,000		345,000	0.0%
Other interest expense	1,496,100	1,800,000	1,678,000	307,000	1,985,000	18.3%
Interest during construction	(1,566,014)	(930,000)	(930,000)	30,000	(900,000)	-3.2%
Total Non Operating Expense	**5,289,129**	**6,190,000**	**7,190,000**	**(262,000)**	**6,928,000**	**-3.6%**
Total Expenses (Function Cost)	**52,879,473**	**52,941,023**	**54,929,571**	**1,609,010**	**56,538,581**	**2.9%**
Net Income	**9,495,743**	**7,407,977**	**6,718,429**	**(1,094,010)**	**5,624,419**	**-16.3%**
Appropriation:						
Total Expenses			**54,929,571**	**1,609,010**	**56,538,581**	
Less: Non Cash items						
Depreciation and amortization			11,510,000	210,000	11,720,000	
Amortization of debt expense			345,000	-	345,000	
Interest during construction			(930,000)	30,000	(900,000)	
Total Non-Cash			10,925,000	240,000	11,165,000	
Amount to be Appropriated (cash expenses)			**44,004,571**	**1,369,010**	**45,373,581**	

Anchorage Water Utility
Reconciliation from 2017 Revised Budget to 2018 Approved Budget

	Appropriation	Positions FT	PT	T
2017 Revised Budget	54,929,571	283	1	11
Transfers (to)/from Other Agencies				
- Charges from other departments	456,188	-	-	-
Debt Service Charges				
- Interest	(292,000)	-	-	-
- AFUDC	30,000	-	-	-
Changes in Existing Programs/Funding for 2018				
- Salary and benefits adjustments	915,845	-	-	-
- Depreciation	210,000	-	-	-
- MUSA	288,977	-	-	-
2018 Continuation Level	**56,538,581**	**283**	**1**	**11**
2018 Approved Budget Changes				
- Travel	2,900	-	-	-
- Other non labor	(2,900)	-	-	-
2018 Approved Budget	**56,538,581**	**283**	**1**	**11**
2018 Budget Adjustment for Accounting Transactions (Appropriation)				
- Depreciation and amortization	(11,720,000)	-	-	-
- Amortization of debt expense	(345,000)	-	-	-
- Interest during construction	900,000	-	-	-
2018 Approved Budget (Appropriation)	**45,373,581**	**283**	**1**	**11**

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

Anchorage Water Utility
2018 - 2023 Capital Improvement Program
(in thousands)

Project Category	2018	2019	2020	2021	2022	2023	Total
ADOT-MOA-Emergency	3,371	2,627	3,625	4,110	4,037	4,000	21,770
Facility Master Plan	-	650	-	50	-	250	950
IT Hardware/Software	2,075	1,350	1,450	1,450	1,475	1,450	9,250
Miscellaneous Equipment	850	850	850	850	850	850	5,100
Other Plant & Facilities	-	-	250	-	650	-	900
Transmission/Distribution	21,754	20,478	23,975	22,695	25,993	27,950	142,845
Vehicles	1,000	1,055	1,000	1,000	1,000	1,000	6,055
Water Plant	3,570	5,850	2,850	4,600	1,750	1,500	20,120
Total	**32,620**	**32,860**	**34,000**	**34,755**	**35,755**	**37,000**	**206,990**

Funding Source	2018	2019	2020	2021	2022	2023	Total
Debt	24,620	24,860	26,000	26,755	27,755	29,000	158,990
Equity/Operations	8,000	8,000	8,000	8,000	8,000	8,000	48,000
Total	**32,620**	**32,860**	**34,000**	**34,755**	**35,755**	**37,000**	**206,990**

Anchorage Water Utility
2018 Capital Improvement Budget
(in thousands)

Project Title	Debt *	State/Fed Grant	Equity/ Operations *	Total
ADOT-MOA Emergency				
ADOT-MOA-Emergency -Water	366	-	3,005	3,371
ADOT-MOA Emergency	**366**	**-**	**3,005**	**3,371**
IT Hardware/Software				
Customer Information System Enhancements	-	-	1,000	1,000
Geographic Information System Application Development	-	-	50	50
Hydraulic Model Upgrades	-	-	50	50
Information Technology Infrastructure	-	-	600	600
Miscellaneous Information Technology Systems	-	-	250	250
Work Management Software	-	-	125	125
IT Hardware/Software	**-**	**-**	**2,075**	**2,075**
Miscellaneous Equipment				
Facility Equipment - Water	-	-	100	100
SCADA Equipment	-	-	750	750
Miscellaneous Equipment	**-**	**-**	**850**	**850**
Transmission/Distribution				
4255_Debar_Road_Wtr_Upgrade	300	-	-	300
92nd Ave Intertie Zone Conversion	750	-	-	750
Becharof-Rakof-chirkoff Rehab	1,710	-	-	1,710
Boston_Street_Water_Rehab	896	-	-	896
E_42nd_LO_to_Piper_Water_Rehab	1,650	-	-	1,650
E_7th_Lane_to_Pine_Water_Rehab	458	-	-	458
ENLB_Augustine_Wtr_Upgr	450	-	-	450
Inlet_Place_Water_Rehab	567	-	-	567
Jewel Lake Intertie	1,100	-	-	1,100
Plant Oversize Improvement-Water	25	-	-	25
Powder Reserve WTID	3,400	-	-	3,400
Res 03/04 Circulation Line	1,000	-	-	1,000
San_Antonio_Camila_San_Rob_Water_Rehab	1,630	-	-	1,630
SW 260 Zone Capacity Improvements	5,000	-	-	5,000
TBird_Grandview_Subd_Wtr_Upgrade	2,000	-	-	2,000
W_43rd _Aero_to_Constellation_Water_Rehab	818	-	-	818
Transmission/Distribution	**21,754**	**-**	**-**	**21,754**
Vehicles				
FB Tanker (94555), Vactor Truck Exc. (94947)	-	-	650	650
Vehicles - Water	-	-	350	350
Vehicles	**-**	**-**	**1,000**	**1,000**
Water Plant				
Chlorine Analyzer Upgrade	-	-	500	500
ER Well Rehab - Norfolk, Well #8	500	-	-	500
EWTF Facility Plan Recommendations	2,000	-	-	2,000
EWTF FTW Turbidimeter Upgrade	-	-	70	70
Facility Plant - Water	-	-	500	500
Water Plant	**2,500**	**-**	**1,070**	**3,570**
Total	**24,620**	**-**	**8,000**	**32,620**

* 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

	2016 Actual	2017 Proforma	2018 Approved
Sources of Cash Funds			
Operating Income	20,997,884	20,934,000	20,147,419
Depreciation, net of amortization	10,838,760	11,260,000	11,720,000
Special Assessment Proceeds	532,065	300,000	300,000
State of Alaska Loan Proceeds	9,998,202	9,700,000	9,900,000
Bond/Other Loan Proceeds	5,500,000	9,000,000	9,000,000
Miscellaneous Non-Operating Revenues	(5,207)	-	-
Interest Received	588,253	655,000	680,000
Changes in Assets and Liabilities	2,182,133	629,655	1,115,581
Total Sources of Cash Funds	**50,632,090**	**52,478,655**	**52,863,000**
Uses of Cash Funds			
Capital Construction	22,698,092	29,467,700	31,087,000
Debt Principal Payment	9,241,407	9,261,000	11,728,000
Debt Interest Payments	6,607,235	7,120,000	7,828,000
MUSA	7,314,997	7,991,023	8,280,000
Total Uses of Cash Funds	**45,861,731**	**53,839,723**	**58,923,000**
Net Increase (Decrease) in Cash Funds	4,770,359	(1,361,068)	(6,060,000)
Cash Balance, January 1	36,157,709	40,928,068	39,567,000
Cash Balance, December 31	**40,928,068**	**39,567,000**	**33,507,000**
Detail of Cash and Investment Funds			
General Cash Less Customer Deposits	36,343,020	34,750,000	32,877,000
Construction Cash	4,222,552	4,455,000	268,000
Operating Fund Investment & Customer Deposits	362,496	362,000	362,000
Cash Balance, December 31	**40,928,068**	**39,567,000**	**33,507,000**

** This budgetary presentation does not include the effects of implementing Governmental Accounting Standards Board Statement No. 68, Accounting and Financial Reporting for Pensions and thus the revenues and expenses presented in this schedule differ from AWWU's GAAP basis financial statements.*

Anchorage Wastewater Utility
8 Year Summary
($ in thousands)

Financial Overview	2016 Actuals	2017 Proforma	2018 Approved	2019	2020	2021	2022	2023
				Forecast				
Revenues	52,906	56,250	57,550	61,330	65,170	68,690	73,220	77,290
Expenses and Transfers	48,306	49,789	52,553	56,870	58,270	60,020	65,750	67,280
Net Income (Loss) - Regulatory	**4,600**	**6,461**	**4,997**	**4,460**	**6,900**	**8,670**	**7,470**	**10,010**
Dividend to General Government	-	-	-	-	-	-	-	-
Increase in Net Assets	**4,600**	**6,461**	**4,997**	**4,460**	**6,900**	**8,670**	**7,470**	**10,010**
Budgeted Positions*	294	295	295	295	295	295	295	295
Capital Improvement Program	34,200	33,650	36,362	36,710	36,900	37,000	37,000	38,000
New Debt	12,815	16,000	15,000	64,000	6,000	6,000	109,000	6,000
Net Capital Assets (12/31)	407,185	422,264	436,793	454,958	474,058	487,477	503,105	521,330
Net Position (12/31)	86,052	92,513	97,509	101,960	108,840	117,510	124,980	134,990
Operating Cash	29,458	28,604	24,313	19,767	16,454	15,230	14,084	13,331
Construction Cash Pool	1,792	106	-	41,511	21,352	-	61,509	25,579
Restricted Cash	267	267	267	267	267	267	267	267
Total Cash	**31,517**	**28,977**	**24,580**	**61,545**	**38,073**	**15,497**	**75,860**	**39,177**
IGCs - General Government	1,501	1,973	2,597	2,597	2,597	2,597	2,597	2,597
MUSA	5,704	6,004	6,230	6,440	6,710	7,010	7,210	7,450
CCP Borrowings from Gen'l Govt.	-	-	-	-	-	6,755	-	-
Total Outstanding LT Debt	173,318	170,685	176,927	231,861	225,928	219,663	316,058	305,625
Total Annual Debt Service	10,470	11,147	14,456	17,522	19,947	20,049	24,260	27,682
Debt Service Coverage (Bond)	5.05	4.55	2.91	2.29	2.06	2.27	1.88	1.70
Debt Service Coverage (Total)	1.94	1.80	1.37	1.28	1.25	1.36	1.26	1.20
Debt/Equity Ratio	67 / 33	65 / 35	64 / 36	69 / 31	67 / 33	65 / 35	72 / 28	69 / 31
Rate Change Percent	0.00%	9.50%	2.50%	6.00%	6.00%	6.00%	6.00%	5.00%
Single Family Rate	40.72	44.59	45.70	48.44	51.35	54.43	57.70	60.58
Statistical/Performance Trends								
Number of Accounts	57,163	57,306	57,449	57,593	56,816	56,958	57,100	57,243
Average Treatment (MGD)	27.70	27.77	27.84	27.91	27.98	28.05	28.12	28.19
Miles of Wastewater Lines	759	761	763	765	767	769	770	772

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

Anchorage Wastewater Utility
Statement of Revenues and Expenses

	2016 Actuals	2017 Proforma	2017 Revised	18 v 17 $ Change	2018 Approved	18 v 17 % Change
Operating Revenue						
Charges for Services	51,034,547	54,750,000	55,300,000	820,000	56,120,000	1.5%
Miscellaneous	966,107	900,000	970,000	(45,000)	925,000	-4.6%
Total Operating Revenue	**52,000,654**	**55,650,000**	**56,270,000**	**775,000**	**57,045,000**	1.4%
Non Operating Revenue						
Investment Income	494,810	600,000	480,000	20,000	500,000	4.2%
Other Income	410,414	-	15,000	(10,000)	5,000	-66.7%
Total Non Operating Revenue	**905,224**	**600,000**	**495,000**	**10,000**	**505,000**	**2.0%**
Total Revenue	**52,905,878**	**56,250,000**	**56,765,000**	**785,000**	**57,550,000**	**1.4%**
Operating Expenses						
Labor						
Labor and Benefits	18,140,841	16,615,000	16,817,090	376,105	17,193,195	2.2%
Overtime	393,744	420,000	419,500	-	419,500	0.0%
Total Labor	18,534,585	17,035,000	17,236,590	376,105	17,612,695	2.2%
Non Labor						
Non Labor	9,866,290	11,412,000	11,559,030	(8,300)	11,550,730	-0.1%
Travel	46,175	80,000	82,500	8,300	90,800	10.1%
Transfers (MUSA and gross receipts)	5,704,269	6,003,654	6,003,654	226,346	6,230,000	3.8%
Depreciation and Amortization	8,750,021	8,950,000	9,650,000	(80,000)	9,570,000	-0.8%
Total Non Labor	24,366,755	26,445,654	27,295,184	146,346	27,441,530	0.5%
Total Direct Cost	**42,901,340**	**43,480,654**	**44,531,774**	**522,451**	**45,054,225**	1.2%
Charges from other departments	1,501,283	1,973,000	2,123,003	474,248	2,597,251	22.3%
Total Operating Expense	**44,402,623**	**45,453,654**	**46,654,777**	**996,699**	**47,651,476**	2.1%
Non Operating Expense						
Interest on bonded debt	2,996,719	3,000,000	4,024,000	(452,000)	3,572,000	-11.2%
Amortization of debt expense	25,448	60,000	62,000	38,000	100,000	61.3%
Other interest expense	1,500,941	1,875,000	1,604,000	206,000	1,810,000	12.8%
Interest during construction	(620,094)	(600,000)	(510,000)	(70,000)	(580,000)	13.7%
Total Non Operating Expense	**3,903,014**	**4,335,000**	**5,180,000**	**(278,000)**	**4,902,000**	-5.4%
Total Expenses (Function Cost)	**48,305,637**	**49,788,654**	**51,834,777**	**718,699**	**52,553,476**	1.4%
Net Income	**4,600,241**	**6,461,346**	**4,930,223**	**66,301**	**4,996,524**	1.3%
Appropriation						
Total Expenses			**51,834,777**	**718,699**	**52,553,476**	
Less: Non Cash items						
Depreciation and amortization			9,650,000	(80,000)	9,570,000	
Amortization of debt expense			62,000	38,000	100,000	
Interest during construction			(510,000)	(70,000)	(580,000)	
Total Non-Cash			9,202,000	(112,000)	9,090,000	
Amount to be Appropriated (cash expenses)			**42,632,777**	**830,699**	**43,463,476**	

Anchorage Wastewater Utility
Reconciliation from 2017 Revised Budget to 2018 Approved Budget

	Appropriation	Positions FT	PT	T
2017 Revised Budget	51,834,777	283	1	11
Transfers (to)/from Other Agencies				
- Charges from other departments	474,248	-	-	-
Debt Service Charges				
- Interest	(246,000)	-	-	-
- Amortization of Debt Expense	38,000	-	-	-
- AFUDC	(70,000)	-	-	-
Changes in Existing Programs/Funding for 2018				
- Salary and benefits adjustments	376,105	-	-	-
- Depreciation	(80,000)	-	-	-
- MUSA	226,346	-	-	-
2018 Continuation Level	**52,553,476**	**283**	**1**	**11**
2018 Approved Budget Changes				
- Travel	8,300	-	-	-
- Other non labor	(8,300)	-	-	-
2018 Approved Budget	**52,553,476**	**283**	**1**	**11**
2018 Budget Adjustment for Accounting Transactions (Appropriation)				
- Depreciation and amortization	(9,570,000)	-	-	-
- Amortization of debt expense	(100,000)	-	-	-
- Interest during construction	580,000	-	-	-
2018 Approved Budget (Appropriation)	**43,463,476**	**283**	**1**	**11**

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

Anchorage Wastewater Utility
2018 - 2023 Capital Improvement Program
(in thousands)

Project Category	2018	2019	2020	2021	2022	2023	Total
ADOT-MOA-Emergency	3,009	2,340	3,551	2,566	3,910	3,435	18,811
Collection System	15,536	17,650	14,029	20,189	22,500	24,500	114,404
Facility Master Plan	-	-	-	700	500	250	1,450
IT Hardware/Software	2,100	1,360	1,465	1,440	1,465	1,440	9,270
Miscellaneous Equipment	950	850	850	850	850	850	5,200
Other Plant & Facilities	1,650	-	-	-	-	-	1,650
Vehicles	1,050	755	1,000	1,000	1,000	1,000	5,805
Wastewater Plant	12,067	13,755	16,005	10,255	6,775	6,525	65,382
Total	**36,362**	**36,710**	**36,900**	**37,000**	**37,000**	**38,000**	**221,972**

Funding Source	2018	2019	2020	2021	2022	2023	Total
Debt	26,362	26,710	27,900	28,000	28,000	30,000	166,972
Equity/Operations	10,000	10,000	9,000	9,000	9,000	8,000	55,000
Total	**36,362**	**36,710**	**36,900**	**37,000**	**37,000**	**38,000**	**221,972**

Anchorage Wastewater Utility
2018 Capital Improvement Budget
(in thousands)

Project Title	Debt *	State/Fed Grant	Equity/ Operations *	Total
ADOT-MOA Emergency				
ADOT-MOA-Emergency - Sewer	-	-	3,009	3,009
ADOT-MOA Emergency	**-**	**-**	**3,009**	**3,009**
Collection System				
616 W. 12th Ave_1202 F St Sewer Service	100	-	-	100
C & D St Sewer	320	-	-	320
D & E St Sewer	-	-	325	325
Farm Ave Swr Rehab	1,160	-	285	1,445
H & I St Sewer	-	-	345	345
Large Diameter Sewer Manholes	2,400	-	-	2,400
M St Sewer	300	-	-	300
Mills Dr SWR Rehab	1,875	-	-	1,875
N, Hoyt & Bunn Alley Sewer	495	-	-	495
Nathan Cir Sewer Upgrade	500	-	-	500
Pawn Place Sewer Upgrade	300	-	-	300
Powder Reserve TID	1,600	-	-	1,600
PS 17	-	-	250	250
PS 58 Improvments	1,000	-	-	1,000
Pump & Lift Station Improvements	1,000	-	-	1,000
Seppala W30th NLB Reconstruction SWR	600	-	-	600
Ship Creek Inverted Siphon Rehab	200	-	-	200
Spenard Sewer Upgr	300	-	-	300
Turpin Septage Receiving Station	-	-	1,436	1,436
W. 2nd Ave Sewer	-	-	250	250
W. 8th, N - P St Sewer	495	-	-	495
Collection System	**12,645**	**-**	**2,891**	**15,536**
IT Hardware/Software				
Customer Information System Enhancements	-	-	1,000	1,000
Geographic Information Systems Application Development	-	-	50	50
Hydraulic Model Upgrades	-	-	50	50
Information Technology Infrastructure	-	-	600	600
Miscellaneous Information Technology Systems	-	-	250	250
Water Qual. Mgmt and Environmental Compliance Monitoring	-	-		25
Reporting			25	
Work Management System	-	-	125	125
IT Hardware/Software	**-**	**-**	**2,100**	**2,100**
Miscellaneous Equipment				
Facility Equipment - Sewer	-	-	200	200
SCADA Equipment	-	-	750	750
Miscellaneous Equipment	**-**	**-**	**950**	**950**
Other Plant & Facilities				
King Street Warm Storage	1,650	-	-	1,650
Other Plant & Facilities	**1,650**	**-**	**-**	**1,650**

Anchorage Wastewater Utility
2018 Capital Improvement Budget
(in thousands)

Project Title	Debt *	State/Fed Grant	Equity/ Operations *	Total
Vehicles				
Large Diameter CCTV Truck	-	-	200	200
Vactor/Combinationi Cleaner (94807)	-	-	500	500
Vehicles - Sewer	-	-	350	350
Vehicles	**-**	**-**	**1,050**	**1,050**
Wastewater Plant				
AWWTF Fence and Main Gate Access Improvements	200	-	-	200
AWWTF Grit Rehab	3,500	-	-	3,500
AWWTF Reroof	100	-	-	100
AWWTF Resource Recovery	750	-	-	750
AWWTF Scum Pump & Inline Grinder	2,292	-	-	2,292
AWWTF Slope Beach Tower	1,500	-	-	1,500
AWWTF Storage	2,250	-	-	2,250
AWWTF Surface Drainage & Stormwater System Improvements	200	-	-	200
Facility Plant - Sewer	1,000	-	-	1,000
Plant Oversize and Betterments - Sewer	25	-	-	25
Security Improvements - Sewer	250	-	-	250
Wastewater Plant	**12,067**	**-**	**-**	**12,067**
Total	**26,362**	**-**	**10,000**	**36,362**

* 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

	2016 Actual	2017 Proforma	2018 Approved
Sources of Cash Funds			
Operating Income	13,303,713	16,200,000	15,623,524
Depreciation, net of amortization	8,750,021	8,950,000	9,570,000
Special Assessment Proceeds	574,187	300,000	300,000
State of Alaska Loan Proceeds	8,815,244	7,000,000	6,000,000
Bond/Other Loan Proceeds	4,000,000	9,000,000	9,000,000
Miscellaneous Non-Operating Revenues	7,693	-	5,000
Interest Received	492,902	600,000	500,000
Changes in Assets and Liabilities	(2,408,775)	50,550	1,499,076
Total Sources of Cash Funds	**33,534,985**	**42,100,550**	**42,497,600**
Uses of Cash Funds			
Capital Construction	15,066,412	27,436,500	26,269,600
Debt Principal Payment	5,894,889	6,264,760	8,913,000
Debt Interest Payments	4,407,729	4,935,000	5,482,000
MUSA	5,704,269	6,003,654	6,230,000
Total Uses of Cash Funds	**31,073,299**	**44,639,914**	**46,894,600**
Net Increase (Decrease) in Cash Funds	2,461,686	(2,539,364)	(4,397,000)
Cash Balance, January 1	29,054,678	31,516,364	28,977,000
Cash Balance, December 31	**31,516,364**	**28,977,000**	**24,580,000**
Detail of Cash and Investment Funds			
General Cash Less Customer Deposits	29,457,679	28,604,000	24,313,000
Construction Cash	1,792,062	106,000	-
Operating Fund Investment & Customer Deposits	266,623	267,000	267,000
Cash Balance, December 31	**31,516,364**	**28,977,000**	**24,580,000**

** This budgetary presentation does not include the effects of implementing Governmental Accounting Standards Board Statement No. 68, Accounting and Financial Reporting for Pensions and thus the revenues and expenses presented in this schedule differ from AWWU's GAAP basis financial statements.*

About Anchorage Water & 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 $527 million that delivers nearly 23 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 the 1950's, 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 $392 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 biological oxygen demand (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 2016, the Asplund Wastewater Treatment Facility treated an average of 26 million gallons per day (mgd). The Eagle River Wastewater Treatment Facility treated an average 1.3 mgd and the Girdwood Wastewater Treatment Facility treated 0.4 mgd. The three facilities have a combined design capacity of 61.1 mgd. The wastewater collection system has approximately 759 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' time 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, 86 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.