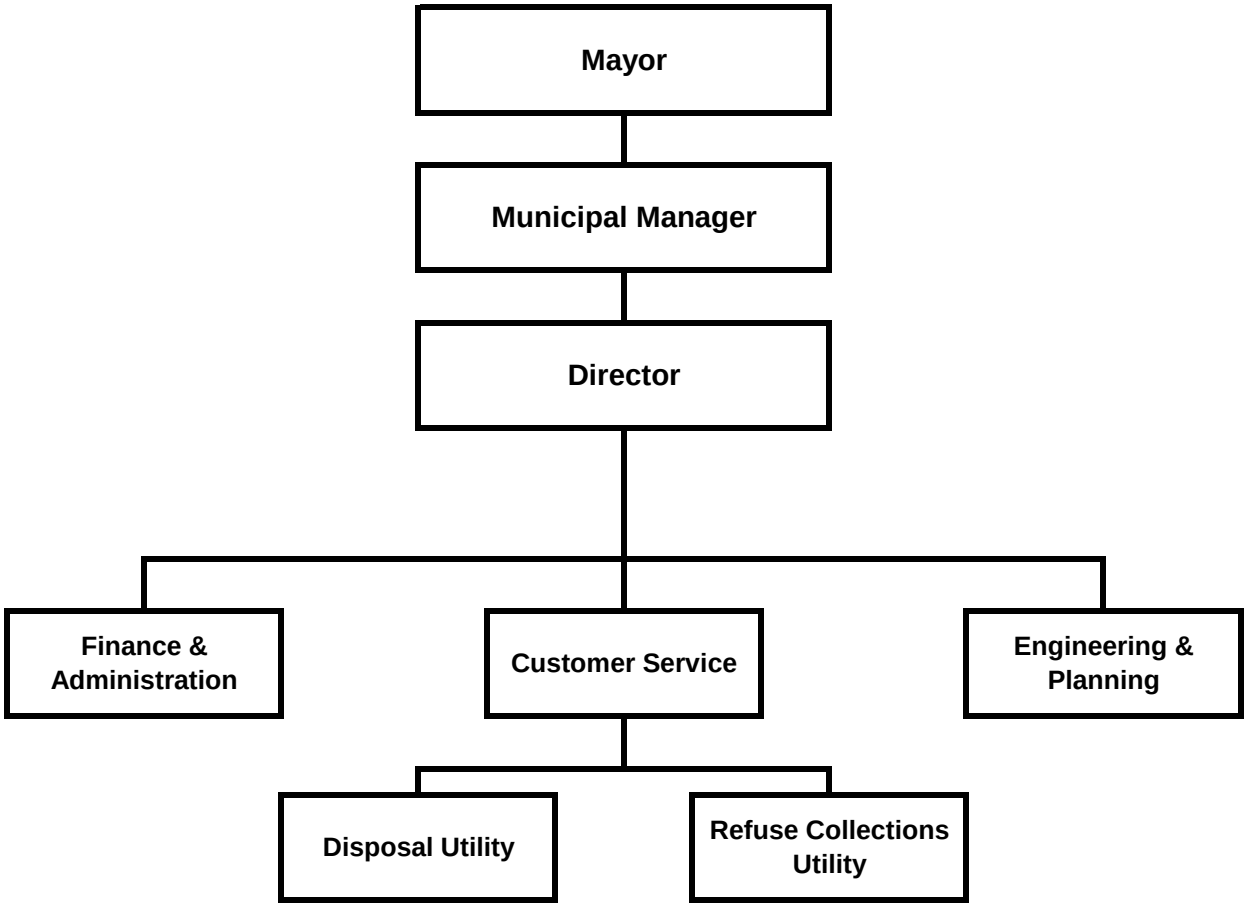
Solid Waste Services



Solid Waste Services
Organizational Overview

Solid Waste Services, comprised of the Refuse Collection Utility and Solid Waste Disposal Utility, is defined as a municipal utility by Anchorage Municipal Code [AMC 26.10.015]. The Utilities are self-funded and self supporting by revenues derived from operations; primarily customer fees for services. No tax dollars are used by Solid Waste Services (SWS) operations. By Code and Municipal Charter, each utility is required to operate in accordance with general business standards common to the solid waste industry [Charter Article 16.01] and to provide a reasonable profit in accordance with industry standards [AMC 26.10.060].

To support Refuse Collection and the Disposal Utilities, SWS is comprised of three operating divisions: Engineering, Customer Service, and Administration. Each SWS supervisor reports to the Director.

Director
The Director is responsible for the overall management of SWS. The Director oversees operational decisions, with the Solid Waste and Recycling Advisory Commission providing an overview of strategies, operating plans and budgets, along with offering input on solid waste issues, ordinances and policies.

Refuse Collection Utility
The Refuse Collection Utility provides both residential and commercial service to the City of Anchorage service area. The collection utility is currently in the process of change, with all customers shifting to automated operations. There are currently approximately 2,000 commercial and residential customers which still receive manual can and bag pickup. This change is expected to be complete by 2017.

Commercial refuse collection is performed with a fleet of six commercial frontload refuse collection vehicles and one double sideload refuse collection vehicle, each with a single operator on seven routes serviced Monday through Friday. There are four additional routes serviced on Saturdays. Commercial Refuse Collection vehicles service over 5,000 dumpsters weekly. This translates to a route average of 635 dumpsters weekly and 127 dumpsters daily. All commercial refuse collected is unloaded at the Central Transfer Station.

Commercial dumpster service is supported by a container repair technician who is responsible for the transportation of commercial refuse containers between sites while operating a medium-duty flatbed truck and forklift, as well as the repair, cleaning, and inventory of dumpsters.

Residential refuse and curbside recycling collection is performed with a fleet of six automated sideload vehicles with a single operator on six routes serviced Monday and Tuesday, and five routes on Wednesday, Thursday, and Friday. Three automated residential trash routes service over 10,000 customers weekly, with a daily route average of 726 services. All residential refuse is collected and unloaded at the Central Transfer Station.

Curbside Recycling is performed by two routes that service over 9,500 customers weekly, with an average of 700 daily. Residential recycling is transported and unloaded at the Anchorage Recycling Center and pays a recycling tipping fee.

Residential automated service is supported by a container inventory technician who is responsible for the transportation of trash and recycling roll carts between customer locations by a medium-duty cargo van, as well as the repair, cleaning, and inventory of roll carts.

Mixed paper and cardboard recycling collection for municipal offices began in 2005, and is provided on a weekly, bi-weekly, and monthly basis to more than 50 locations using 64-gallon roll-carts. This recycling service is provided using a semi-automated vehicle with a single operator. The average weight of mixed paper and cardboard collected annually is 112 tons. Mixed paper and cardboard is transported and unloaded at the Anchorage Recycling Center with no tipping fees and at no cost to MOA general government. The donation to general government is currently estimated at over $30,000.

All refuse and recycling collection activities are currently performed by the following positions:

Operations Supervisor – Responsible for a total program of refuse collections.
Route Supervisor – Coordinates daily activities associated with refuse collections.
Commercial Equipment Operators – Operates commercial frontload vehicles to service dumpsters for collection of commercial waste.
Residential Equipment Operators – Operates automated sideload vehicles to service roll carts for collection of residential waste.
Swampers – Assists with collection of commercial and residential waste.
Container Repair Technician – Responsible for transportation, repair, cleaning, and inventory of commercial dumpsters.
Container Inventory Technician – Responsible for transportation, repair, cleaning, and inventory of residential trash and recycling roll carts.

Refuse collection fleet consists of ten 40 cubic yard commercial frontload vehicles, nine 27 cubic yard automated sideload vehicles, one 25 cubic yard rear loader, six light-duty support vehicles, and one forklift.

Refuse Collection vehicle maintenance employees repair and maintain the refuse collection fleet within a warm storage facility at the central transfer station.

Refuse Collection employees are members of the Teamster's union and Vehicle Maintenance employees are with the International Brotherhood of Electrical Workers. All operators are required to participate in a pre-route safety-operations briefing, and daily DOT required pre-shift and post-shift vehicle inspections.

Disposal Utility

The main function of the Disposal Utility is to dispose of household and commercial refuse generated in the Municipality. The refuse is brought to three locations: Girdwood Transfer Station, Central Transfer Station, and the Anchorage Regional Landfill. The Disposal Utility has an extensive fleet of specialized equipment for the disposal of refuse that is maintained, operated and supported by highly skilled and trained individuals located at each location.

The Girdwood Transfer Station (GTS) receives over 9,800 household garbage loads totaling 750 tons of refuse annually. GTS has a paved area where garbage is discarded into an enclosure containing a 120 cubic yard trailer for transfer to the Central Transfer Station. GTS accepts used oil and batteries from customers; the items are picked up by Household Hazardous Waste contractors for proper disposal, recycling, or for reuse.

The Central Transfer Station (CTS) is located between the old and new Seward Highways on 56th Avenue. The CTS transfers on average 45 loads totaling 800 tons per day. The refuse is transferred to the landfill by SWS tractors pulling 120 cubic yard open top trailers, referred to as transfer trucks. First, commercial and residential refuse is dumped on the tipping floor. Next, the transfer trucks pull into one of two loading pits and the refuse is pushed into the trailers by front end loader operators on the tipping floor. The refuse is then packed down in the trailers by a knuckle boom crane operator located above each loading pit. Finally, the loaded trailers are then driven to Anchorage Regional Landfill. CTS accepts residential used oil, batteries and appliances that are picked up by contractors for proper disposal, recycling, or for reuse.

The Disposal Utility has a Household Hazardous Waste facility operated by a private contractor at CTS. Customers can drop off small quantities (less than 220 pounds per month) of unregulated hazardous waste not allowed in the landfill; some of the items are made available for reuse by the public at a Paint and Materials Exchange building located near the entrance on East 54th Avenue.

The Anchorage Regional Landfill (ARL), located near the intersection of the Glenn Highway and Hiland Road, is a 275 acre, award-winning, subtitle D landfill that disposes of 1,100 tons of refuse daily. Currently, nine cells are constructed, with a total of 12 cells to be developed. Every day, the refuse is compacted, and then, by regulation, it must be covered using bulldozers. The cover material comes from the excavation of future cells. Each landfill cell is lined and contains a leachate (water) collection system. Leachate is transported in pipelines to collection lagoons for pre-treatment by aeration to increase the oxygen levels. On average, three specially designed leachate tankers transport and dispose of 50,000 gallons a day.

ARL employees are responsible for the daily disposal of all of the MOA's refuse, the excavation and hauling of daily cover material, the installation and maintenance of landfill gas recovery wells and lines, the hauling of leachate, the building and maintaining of roads, snow removal, dust control and equipment repair.

In 2008, the Disposal Utility established the municipality-wide recycling program which has seen increasing success in the last four years. City-wide recycling has increased and trash disposed in the landfill has gone down; thus extending the life of the landfill. Funded from a recycling surcharge, the program promotes recycling and the recycling industry. Two part-time recycling coordinators answer public inquiries, and, in coordination with private and non-profit partners, prepare educational media campaigns and events related to recycling.

The surcharge has funded the development of an expanded paved public recycling drop-off site at the landfill. ARL currently accepts aluminum cans, paper, plastic, and cardboard. The materials are then transported to the Anchorage Recycling Center.

The program also provides support for public space recycling and to the Anchorage School District (ASD) by collecting mixed paper from all ASD facilities. Recycling is further supported through a grant for Christmas tree recycling, and a grant to offset the Port of Anchorage wharfage fees that the Anchorage Recycling Center pays to ship recyclables out of state. A large, but less visible effort is economic and business development grants. These funds are given to local recycling businesses for developing ideas for reusing materials in-state, such as glass, tires, construction and demolition debris, and organics.

Located within a warm storage facility located at ARL, vehicle maintenance employees repair and maintain heavy equipment and Disposal vehicles.

As previously stated, the main Household Hazardous Waste facility is located at ARL. It is operated by a private contractor that serves the residential and small business customers.

Engineering and Planning

Engineering and Planning consists of one engineer/manager and two engineering technicians. The group has the following main functions:

- Planning, design and construction of new facilities;
- Major facility upgrades and repairs;
- Technical landfill operations;
- Landfill gas collection system operation;
- Regulatory compliance

The division is responsible for planning, design and management of construction on landfill expansion cells, gas collection system piping, and landfill closure projects. Over the next ten years, the Engineering division will manage over $38 million in planned landfill cell construction. The division relies on contracted engineering services for major design and construction projects. As the landfill development progresses, engineering efforts will turn more toward closure and reclamation projects such as capping, re-vegetation and storm water management. The current closure cost includes $36 million (2005 dollars) of closure construction work that will be conducted over a period of 20 years.

As facilities age, the Engineering and Planning division is responsible for planning, design and procurement of services for major repair and maintenance activities. These activities include periodic reconstruction of the Central Transfer Station tipping floor, paving of roads and work areas at the landfill, and rehabilitation of landfill gas and leachate wells and piping systems.

The Engineering and Planning division provides technical support to the Solid Waste Disposal landfill operations staff to improve landfill operations and maximize landfill airspace utilization. The division has helped re-engineer outer landfill slopes, recovering landfill volume equivalent of nearly one year of waste disposal. The engineering staff monitors waste compaction and daily cover quantities in order to re-evaluate these estimates. The division provides support for planning fill operations, developing access roads, and efficiently mining cover materials from the site. As an example, the landfill crew, in addition to processing solid waste, can also mine gravel for current and future cover operations.

Operation of the landfill gas collection system will change from a compliance activity to a commercial production activity after startup of the Landfill Gas to Energy contract with Doyon Utilities in late 2012. Operation will include daily checks on key operating parameters, as well as routine maintenance of well heads and monitoring equipment. The system will require bi-weekly checking and rebalancing of the 58 current gas collection points to optimize the efficiency of the gas collection system while maximizing the gas output delivered to Doyon Utilities.

The Engineering and planning division is responsible for compliance with environmental regulations at the Anchorage Regional Landfill, as well as three closed landfill sites. All sites have groundwater monitoring and reporting requirements, as well as solid waste permit compliance requirements relating to operation or post-closure monitoring. The Merrill Field landfill site has active landfill gas and leachate management systems which have both operational and regulatory reporting requirements.

The Anchorage Regional Landfill operates under an active Class I landfill operating permit, as well as a Title V Air Quality operating permit, both issued by the Alaska Department of Environmental Conservation. In addition to specific operating requirements, these permits require numerous inspections, as well as documentation and reporting requirements. Because the landfill accepts asbestos wastes, it is regulated under National Emissions Standards for Hazardous Air Pollutants which requires inspection and documentation of every load of regulated material received. Both the Landfill and Central Transfer Station have Storm Water Pollution Prevention Plans approved by the Alaska Department of Environmental Conservation which have regular inspection, monitoring, sampling, and reporting requirements.

Customer Service

The Customer Service division is the direct communication link for the utility to its customers. This division manages Refuse Collection service requests, explains rates, enforces solid waste municipal codes, and manages billing and debt collection. Customer Service also is the utility's public image when it greets Disposal Utility customers at the Central Transfer Station, Girdwood Transfer Station, and the Anchorage Regional Landfill. To facilitate and promote waste management efforts, the division collaborates with local organizations such as the Anchorage Chamber of Commerce, Anchorage Downtown Partnership, ALPAR, City Wide Spring Clean-Up, as well as schools, universities, and the military bases.

The Customer Service division consists of a Senior Administrative Officer, Junior Administrative Officer, Debt Collector, Administrative Account Representatives, Scale House/Cash Booth Representatives, and a Code Enforcement Officer. Customer Service Account Representatives are located in the main administrative building, but also work at two scale houses and three cash booth locations from Girdwood to Eagle River every day of the week when the facility is open between the hours of 6:15 a.m. to 5:30 p.m.

The Customer Service division responds to incoming calls and assists customers at the counter with payments or other service-related matters such as trash collection, proper disposal regulations, municipal ordinances, general hazardous waste disposal, recycling awareness, and billing-related questions. Receiving over 300 calls per day, the representatives set up site services, work to resolve customer's complaints and ensure that the best services are being provided for both trash pick up and disposal. The representatives facilitate work orders for route drivers, assist drivers in the field by radio communication, and ensure proper billing for services for each property that Refuse Collection Utility services and for Disposal Utility customer accounts.

The Debt Collection Representative is responsible for the investigation, analysis, and follow-up of overdue customer accounts. To obtain information and to secure the collection of debt, the Representative corresponds with customers, attorneys, and outside agencies. To assist customers, payment agreements and plans are prepared.

The Code Enforcement Officer monitors the SWS service area by actively facilitating corrective action for, or resolution of, code violations observed in the field or by general public complaints received.

Working inside two scale houses or three cash booths, the Disposal Utility Account Representatives screen customer loads, process charges and fees, assist with hazardous waste or recycling questions, and monitor the safety of customers and employees. The Customer Service Division is responsible for face-to-face interaction with over a quarter of a million customers per year.

Recognizing that the solid waste business is dangerous, the Customer Service strives to educate customers about safe disposal of waste and efficiently respond to as many waste related issues as possible to meet the needs of our customers. SWS works together to resolve customer issues as promptly as possible. Safety and customer service are the highest priorities.

Administration
The Administration division provides support to the Director and to each Utility. It is responsible for IT Systems & Communications, Safety, Finance & Accounting, Purchasing, and Accounts Payable, as well as human resources, labor relations, security, code enforcement, facility maintenance, and vehicle parts inventory functions.

The IT Systems & Communications Section manages the solid waste based computer systems that track loads, weights, customer accounts receivable, billing, revenues, as well as the upload of SWS data into the Municipal accounting systems.

In addition, the section is responsible for the maintenance and technical support of the SWS 120,000 pound IP-based commercial truck scales for the Disposal Utility. The commercial scales are a vital resource that must be properly maintained and certified in order to conduct commerce, and are essential in monitoring the amount of waste Anchorage generates. The Disposal Utility has four scales at two locations—the Central Transfer Station and Anchorage Regional Landfill—which weigh and process over 150,000 transactions annually. This information is used for a multitude of business purposes such as revenue accounting, budget forecasting, and estimated landfill life.

The IT staff maintain all technology devices/equipment, and the associated software applications—nearly 200 networked and local devices running a multitude of applications (AD, SQL, IIS, Tower, Database, File, Print Server, and Antivirus Suites), along with numerous other hardware devices necessary to operate an efficient and safe, local and wide area network.

The Staff also researches, evaluates, and implements existing and emerging technologies when deemed necessary, fiscally responsible, and/or becomes critical to operations. For example, in 2005 SWS completed a database conversion, and moved from a mainframe database in use since 1985 to a SQL platform, reducing software and hardware cost by $20,000 annually ($140,000 saved and still counting). The solid waste focused PC Scale Tower system that replaced the mainframe is not only less expensive to maintain, but also far more modern, scalable, and advanced than the previous system. It enables users to create and develop reports instantaneously. Current projects under evaluation include a Tower-integrated GPS system, landfill geotechnical systems to aid in proper compaction (less compacter passes, reclaimed air space, extends landfill life), and e-billing implementation.

The Safety Section ensures that all operations are conducted in a safe manner. The Safety Section is responsible for compliance with OSHA safety standards by ensuring that the work environment is safe, as well as identifying and mitigating potential hazards for SWS employees and the public long before the hazard becomes an accident statistic. It is responsible for the development, administration and enforcement of safety codes, rules and practices. The Safety Officer inspects buildings, projects, equipment, operating practices and working conditions for compliance with various Municipal, State and Federal safety codes and regulatory requirements. The Safety Officer coordinates safety programs in training, personal protective equipment, clothing and devices, as well as organizes and conducting seminars on first aid and OSHA required safety training. The Safety Officer prepares reports and makes

recommendations for improvement. By analyzing data on accident rates and compensation claims, the Safety Officer develops methods to reduce costs, loss time, and personnel suffering.

The Finance and Accounting section manages the financial matters of the two utilities, including the accounting for revenues and expenses, the preparation of budgets, asset management, capital expenditures, as well as providing financial reports to SWS managers, the Advisory Commission, the Administration and the Assembly.

The Purchasing and Accounts Payable section is responsible for the procurement of and the payment for all equipment, supplies, and contracts, in coordination with other municipal departments. Two employees process all accounts payable for both utilities. Invoices are received, checked, account coded, approved, and entered into PeopleSoft for payment. Purchase orders are initiated at SWS: verifying proper account codes and funding, attaching all supporting documentation, obtaining proper department approval and then forwarding the packets to MOA Purchasing for final approval. Over 100 SWS timecards are processed each week into the PeopleSoft system from the Kronos timekeeping system to ensure proper pay and cost of service coding. Other support duties include: ordering office supplies, processing travel authorizations, expense reports, incoming and outgoing mail, maintaining files, providing administrative support to supervisors and to the SWS Advisory Commission.

The SWS philosophy is to retain a small staff, while encouraging safety and dedication to a job well done.

Solid Waste Services
Business Plan

Mission
Provide management of our solid waste resources to create a safe and sustainable waste system for the Municipality of Anchorage (MOA) in a way that is economical and environmentally responsible.

Services
The Refuse Collection Utility provides garbage collection to the service area of the former City of Anchorage, which is approximately 20% of the population of the MOA. Since at least 1952, there has been mandatory service for all occupants of the Refuse Collections Utility service area. The Refuse Collections Utility provides three types of service: commercial dumpster, automated roll cart service, and can and bag service.

The Solid Waste Disposal Utility serves the entire MOA. The services include the disposal of solid waste, the collection of household hazardous waste, and the promotion of community recycling. Municipal solid waste is received at three transfer stations located within MOA. The waste is then transported by the Utility to the Anchorage Regional Landfill for final disposal.

Business Goals
- Provide exceptional customer service for an equitable cost to the customer.
- Ensure facilities are safe for the customers and for Solid Waste Services employees
- Provide proper disposal of hazardous waste for commercial and residential generators.
- Promote community involvement through education and be responsive to the needs and concerns of municipal citizens.
- Use technology to optimize operations.
- Plan and prepare for current and future waste collection and disposal needs.
- Create incentives and programs to promote source reduction first, then recycling, then treatment, and finally disposal as the preferred means to handle waste.
- Research and explore new revenue options.

Strategies to Achieve Goals
Solid Waste Services strategic plan provides a framework to achieve results for customers.
Refuse Collection Utility
1. Reduce refuse volumes by promoting waste reduction and increased curbside recycling diversion.
2. Reduce injuries associated with residential refuse collection.

Disposal Utility
1. Optimize solid waste transfer truck utilization.
2. Set rates that reflect the cost of services while maintaining infrastructure.

Performance Measures to Track Progress in Achieving Goals
Solid Waste Services measures progress in achieving these goals using sets of quantifiable performance measures.
Refuse Collections Utility
1. Percent change in recyclable material diverted from the residential waste stream.
2. Percent change in worker injuries.

Disposal Utility
1. Solid waste transfer truck payload weight.
2. Maintain positive revenue stream.

Solid Waste Disposal Utility

Anchorage: Performance. Value. Results.

Mission

Dispose of municipal solid waste generated within the Municipality in compliance with state and federal regulations.

Core Services

- Operate the Anchorage Regional Landfill (ARL)
- Operate the solid waste transfer stations and transfer fleet
- Promote community recycling efforts

Accomplishment Goals

Optimize solid waste transfer truck utilization

Performance Measures

- Solid waste transfer truck payload weight
- Transfer loads per driver shift

Measure #1: Average transfer payload rate.

The following graph provides actual average payloads by month from January 2009 through June 2014.

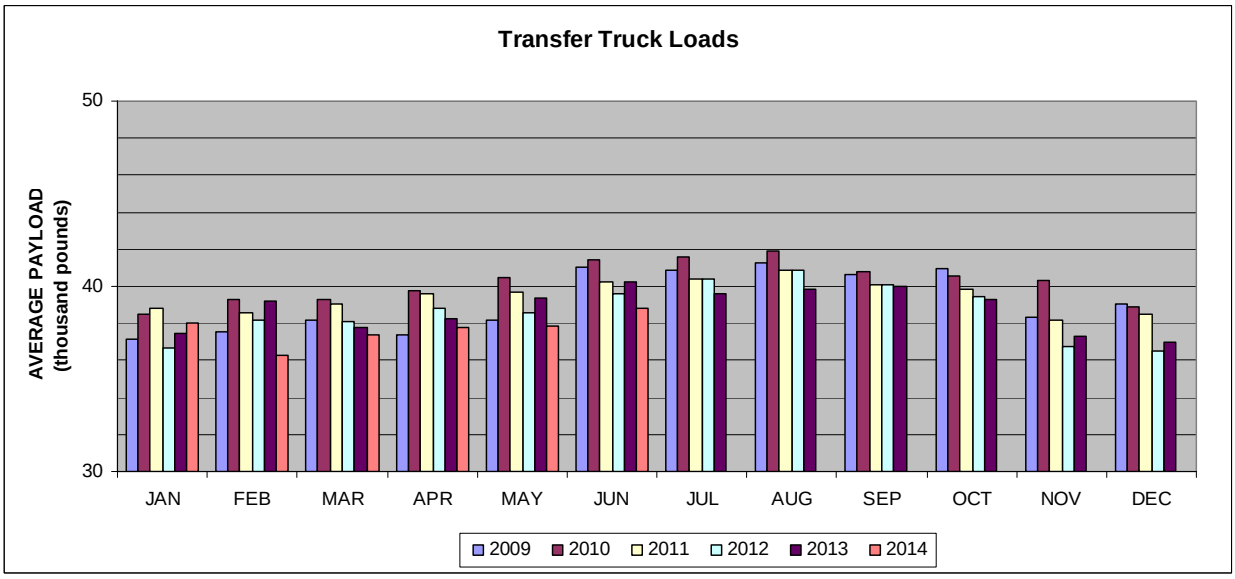


Table 1. Payload Data 2013 – 2014

MONTH	AVERAGE WEIGHT	EXCEEDING TARGET	EXCEEDING TARGET (+/- 5%)
APR-13	38,216	58%	85%
MAY-13	39,394	41%	75%
JUN-13	40,277	46%	81%
JUL-13	39,596	47%	82%
AUG-13	39,862	48%	85%
SEP-13	40,015	54%	88%
OCT-13	39,274	37%	74%
NOV-13	37,300	42%	73%
DEC-13	37,016	35%	69%
JAN-14	37,988	52%	86%
FEB-14	36,300	26%	58%
MAR-14	37,417	43%	79%
APR-14	37,800	48%	77%
MAY-14	37,848	17%	49%
JUN-14	38,788	29%	65%

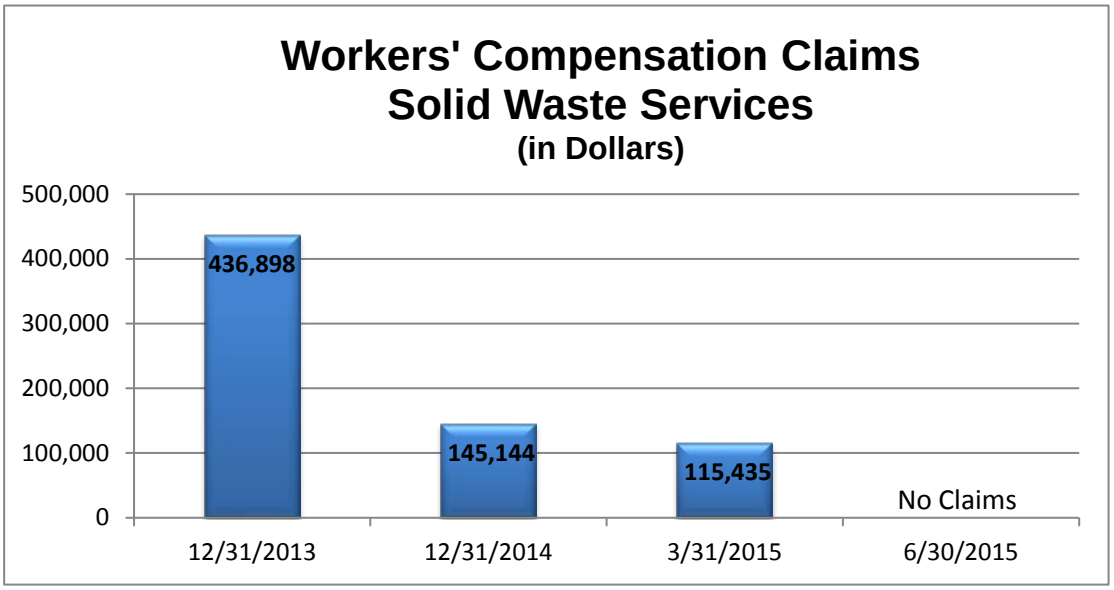
Table 2. Loads per Driver Shift Data 2013 – 2014

MONTH	SHIFTS ≥ 5 LOADS	SHIFTS ≥ 4 LOADS
APR-13	27%	93%
MAY-13	65%	93%
JUN-13	81%	98%
JUL-13	65%	94%
AUG-13	57%	79%
SEP-13	56%	95%
OCT-13	65%	95%
NOV-13	38%	88%
DEC-13	31%	78%
JAN-14	19%	87%
FEB-14	4%	68%
MAR-14	32%	91%
APR-13	40%	90%
MAY-13	58%	89%
JUN-13	67%	96%

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.



Solid Waste Services
Highlights and Future Events

Disposal Utility
To compare prior years to the 2016 budget, the Disposal Utility 2016 total budget is projected at $22,047,638 compared to the 2015 Revised Budget of $20,873,294 and the 2014 Proforma of $20,777,246. The 2016 budget is 5.6% higher then the 2015 Revised Budget. This increase is due primarily to a higher depreciation expense and a contractual increase in salaries and benefits. There is a moderate decrease in non-labor expenses and an adjustment to the debt service.

The two items in the budget that are not appropriated by the Assembly are the non-cash items, depreciation and landfill closure expense, totaling $6,392,937. Depreciation expense is projected at $4,428,041 and the estimated landfill closure cost is $1,964,896. Although the budget appropriation excludes non-cash items, both depreciation and landfill closure costs are included in the utility's financial statements.

Removing the $6,392,937 of non cash items from the total budget of $22,047,638, results in a 2016 appropriation budget of $15,654,701, a 1.4% increase over the 2015 Revised Budget (without non-cash items).

Total revenue for 2016 is projected at $22,856,780, compared to the 2015 Revised Budget revenue of $22,730,958. It is .6% higher than 2015 and reflects the flat line expectation of anticipated level debris tonnage. The leading factor in this area is being projected by the Anchorage Economic Development Corporation's forecast of fewer demolition projects occurring throughout Anchorage.

Net income of $809,142 is forecast for 2016. With the higher anticipated expenses, an additional rate increase will likely be required in the very near future.

With a capital budget of $3.18 million, the 2016 capital projects include several ARL replacement items with new technologies, and landfill equipment.

Refuse Collection
To compare prior years to the Refuse Collection 2016 budget, the Refuse Collection's total operating budget is $10,120,668. The 2015 pro forma was $9,665,327 and the 2015 Revised Budget is $12,115,755. The 2016 budget is 16.47% lower than the 2015 Revised budget due to a major decrease in the Gross Receipts and Contributions made to the Municipality in 2015. This is marginally offset by a moderate increase of labor expenses due to contractual agreements.

The Refuse Collection budget authorization figure will exclude $1,285,905 of depreciation. Although the budget appropriation excludes non-cash items, depreciation will be included in the utility's financial statements.

Removing the $1,285,905 of depreciation from the total budget of $10,120,668 results in a 2016 appropriation budget of $8,834,763, 18.36% less than the 2015 Revised Budget (without depreciation).

Total revenue for 2016 is projected at $11,353,244, compared to the 2015 Revised Revenue of $11,219,189, a 1.11% increase. Without a rate increase revenues are expected to be relatively stable so the modest increase is primary based on current customer behavior in regards to bin sizes and frequency of pickups.

The estimated Refuse Collection net income is $1,232,576 and a capital budget of $1.59 million is proposed. Capital expenses include the purchase of two automated side loader vehicles, a front loader, building improvements, as well as dumpsters and roll-off cans for solid waste commercial customers.

Solid Waste Services
External Impacts

Disposal
SWS is scheduled to construct two new landfill cells at the Anchorage Regional Landfill before the end of 2020. The Utility anticipates using State of Alaska Clean Water Loans with a low interest rate and twenty year term, whenever possible. It is unknown if the program will be funded in the future; if the eligible expenses related to landfill construction will further limit use of these funds for construction; or if SWS will be awarded loans based on the program scoring criteria. Currently the total cost of the landfill expansion is over $22 million, with potential loan amounts estimated at $21 million to cover those costs.

The Landfill Gas to Energy project came into commercial operation in 2013. Revenue to the Disposal Utility derived from the sale of landfill gas to Doyon Utilities is based upon the purchase price for natural gas as reported by Chugach Electric to the Regulatory Commission of Alaska. Future revenues anticipated from this project will be based upon gas price projections by Chugach Electric and other area utilities. As a result the actual revenue generated by this project will fluctuate dependent upon market price of natural gas in Southcentral Alaska. The Municipality and Eklutna Inc. are currently in litigation over potential revenue sharing from this project. Should Eklutna prevail in this action, revenues realized by Solid Waste Services for this service may be decreased by as much as 50 percent.

Currently Doyon Utilities Inc. holds an air quality permit which will allow continuous operation of up to six generating units at the landfill gas power plant on Fort Richardson. The power plant currently operates five generating units, producing 7 MW of power. In the summer months, power usage at Ft. Richardson decreases below this capacity in off-peak hours. Because of the lower demand one generating units is shut down on evenings and weekends, resulting in decreased landfill gas consumption, seasonally. Currently, there is no energy integration between the Ft. Richardson and Elmendorf sides of JBER. This limits the amount of revenue that can be generated by the project.

The current tonnage received at the landfill is dependent upon all refuse providers servicing the Municipality of Anchorage. Solid Waste Services is in the process of initiating a Recycling Education Program as well as recycling incentives. As a result, there is an expected decrease in the amount of refuse received by the Anchorage Regional Landfill.

Furthermore, there is a decrease in demolition of structures within the municipality. This has resulted in the amount of demolition debris reporting to the landfill and has steadily decreased since the inception of Central Recycling Services [CRS]. A portion of the demolition debris diverted to CRS is recycled while the residual from the process is disposed at other locations such as the Birchwood monofill.

Since 1994 SWS has stored gravel generated from cell development activities on Ft. Richardson land, initially by informal agreement. Off site storage off this material has significant implications to the efficient developemtn and operation of the landfill site. SWS currently has over 4 million cubic yards of material stored off-site, all of which will ultimately be needed in the construction and closure of the landfill. In 2009 SWS and JBER reached an agreement whereby SWS would formally lease the land in return for reduced tipping fees. The lease was formalized in 2014 but expires in 2019. An extension of this lease needs to be negotiated prior to expiration to ensure continued use of this property until the gravel is expended.

Leachate from the ARL is disposed of the the local wastewater treatment system, a common practice in the solid waste industry. SWS hauls the leachate from the landfill to AWWU's Turpin Street septic hauler station. In recent years, SWS has hauled over 25 million gallons annually to this facility. The cost for this activity is driven by labor, fuel and vehicle O&M costs as well as AWWU disposal rates, all of which are continuously rising. SWS has explored the possibility of constructing a pipeline to allow direct discharge to the AWWU system. This system would pay for itself in less than 10 years but has numerous political hurdles. SWS is also exploring other onsite treatment alternatives; however these systems have had mixed success of in the solid waste industry because of the strength and variability of the leachate.

The ARL and Central Transfer Station facilities were all constructed in 1987. Consequently, many mechanical, electrical and structural components of these facilities are rapidly approaching or have exceeded their useful lives. Many of these systems are either life safety issues or critical to the continued operation of the facilities. SWS, has and will continue to incur significant capital and maintenance costs as these facilities and components are upgraded or replaced.

Solid Waste Services
Workforce Projections

Division	2014	2015	2016	2017	2018	2019	2020	2021
Refuse Collection	26	26	26	26	26	26	26	26
Disposal	57	53	58	58	58	58	58	58
Administration	21	18	17	17	17	17	17	17
Total Full Time	**104**	**97**	**101**	**101**	**101**	**101**	**101**	**101**
Part time/Temp	7	12	6	6	6	6	6	6
Total Positions	**111**	**109**	**107**	**107**	**107**	**107**	**107**	**107**
Total FTE	**109**	**103.8**	**104**	**104**	**104**	**104**	**104**	**104**

Solid Waste Services - Disposal
8 Year Summary
($ in thousands)

Financial Overview	2014 Actuals	2015 Proforma	2016 Approved	2017	2018	2019	2020	2021
				Forecast				
Revenues	23,315	23,282	22,857	23,542	24,249	24,976	25,726	26,497
Expenses	19,211	20,777	22,048	22,489	22,939	23,398	23,865	24,343
Net Income (Loss)	**4,104**	**2,505**	**809**	**1,054**	**1,310**	**1,579**	**1,860**	**2,154**
Budgeted Positions	63(111)	61(109)	63(107)	63(107)	63(107)	63(107)	63(107)	63(107)
Capital Improvement Program	3,200	3,580	3,180	4,560	14,132	1,860	5,735	13,832
Bond Sales/ New Debt	-	9,480	110	-	-	11,807	-	-
Net Plant (12/31)	55,341	56,678	57,547	60,384	72,816	72,998	77,077	89,723
Utility Revenue Distribution	-	-	-	-	-	-	-	-
Net Assets (12/31)	52,224	54,729	55,719	56,869	68,676	68,926	68,926	79,798
Unrestricted Net Assets	35,869	38,374	39,285	40,442	41,858	43,545	45,515	47,782
Future Landfill Closure Liability	27,063	29,028	30,993	32,958	34,923	36,888	38,853	40,818
General /Construction Cash Pool	17,380	13,909	13,182	12,381	1,494	14,698	12,182	1,877
Landfill Closure Cash Reserve**	11,637	13,375	15,340	17,532	19,497	21,461	23,426	25,391
Total Cash	**29,017**	**27,284**	**28,522**	**29,913**	**20,991**	**36,159**	**35,608**	**27,268**
IGC's - General Government	2,126	2,467	2,568	2,541	2,617	2,696	2,776	2,860
MUSA - 1.25%	291	291	286	294	303	312	322	331
MUSA - Regular	661	656	665	721	870	873	922	1,075
Total Outstanding Debt	11,590	18,113	16,179	14,692	13,205	23,526	22,039	21,001
Total Annual Debt Service	1,942	2,243	2,311	1,723	1,700	1,678	1,656	1,186
Debt Coverage	2.11	1.12	0.39	0.67	0.83	1.01	1.19	1.91
Debt/Equity Ratio	22/78	33/67	29/71	25/75	19/81	34/66	32/68	26/74
Rate Percentage Change (CTS /ARL)								
Tipping Fee Rate per Ton (ARL / CTS)	$58/$68	$58/$68	$58/$68	$58/$68	$58/$68	$58/$68	$58/$68	$58/$69
Pickup Rate per Load	$16	$16	$16	$16	$16	$16	$16	$16
Car Rate per Load	$6	$6	$6	$6	$6	$6	$6	$6
Statistical/Performance Trends								
Tons Disposed	306,723	292,069	295,000	295,000	295,000	295,000	295,000	295,000
Vehicle Count	225,625	257,498	257,498	257,498	257,498	257,498	257,498	257,498

**In 2008, a restricted account to fund landfill closure & post-closure was approved by the MOA Assembly.

Certain actual financial figures above will not match the Comprehensive Annual Financial Report; the CAFR combines Disposal with Administrative and Vehicle Maintenance cost centers.

Solid Waste Services - Disposal
Statement of Revenues and Expenses

	2014 Actuals	2015 Proforma	2015 Revised	16 v 15 $ Change	2016 Approved	16 v 15 % Change
Operating Revenue						
Landfill Disposal Fees	19,086,842	20,261,947	19,610,583	(390,178)	19,220,405	-2.0%
Hazardous Waste Fees	226,228	229,675	132,000	116,000	248,000	87.9%
Community Recycling Residential	151,690	155,700	155,700	(30,000)	125,700	-19.3%
Community Recycling Comercial	422,283	400,000	350,000	40,000	390,000	11.4%
Landfill Methane Gas Sales	2,404,762	1,500,000	1,650,000	300,000	1,950,000	18.2%
Recycle Rebate	(15,095)	(75,000)	(75,000)	75,000	-	-100.0%
Reimbursed Costs	252,362	300,000	300,000	(100,000)	200,000	-33.3%
Unsecured Loads	16,100	15,000	15,000	-	15,000	0.0%
Other	4,676	5,000	5,000	-	5,000	0.0%
Total Operating Revenue	**22,549,848**	**22,792,322**	**22,143,283**	**10,822**	**22,154,105**	**0.0%**
Non Operating Revenue						
Misc. non-operating Revenue	274,153	225,000	140,000	-	140,000	0.0%
Interest from cash pool	351,665	140,000	322,675	100,000	422,675	31.0%
Unrealized Gains/Losses	5,718	25,000	25,000	75,000	100,000	300.0%
Other Property Sales/Diposition of Assets	133,168	100,000	100,000	(60,000)	40,000	-60.0%
Capital Contributions/Grant Revenue	-	-	-	-		-
Total Non Operating Revenue	**764,705**	**490,000**	**587,675**	**115,000**	**702,675**	**19.6%**
Total Revenue	**23,314,553**	**23,282,322**	**22,730,958**	**125,822**	**22,856,780**	**0.6%**
Operating Expenses						
Labor						
Labor and Benefits	5,522,951	5,679,141	5,677,136	113,342	5,790,478	2.0%
Overtime	358,095	499,213	499,213	20,579	519,792	4.1%
Total Labor	**5,881,046**	**6,178,354**	**6,176,349**	**133,921**	**6,310,270**	**2.2%**
Non Labor						
Non Labor	5,068,874	5,570,120	5,573,101	(18,879)	5,554,222	-0.3%
Travel	5,429	5,000	5,000	-	5,000	0.0%
Landfill Closure Costs	1,485,396	1,964,896	1,964,896	-	1,964,896	0.0%
Debt Service	208,404	198,640	270,753	(5,000)	265,753	-1.8%
Depreciation and Amoritization	3,494,426	3,446,781	3,469,319	958,722	4,428,041	27.6%
Transfers (MUSA and Gross receipts)	941,084	946,599	947,020	4,181	951,201	0.4%
Total Non Labor	**11,203,613**	**12,132,036**	**12,230,089**	**939,024**	**13,169,113**	**7.7%**
Total Direct Cost	**17,084,659**	**18,310,390**	**18,406,438**	**1,072,945**	**19,479,383**	**5.8%**
Charges from other departments	2,126,218	2,466,856	2,466,856	101,399	2,568,255	4.1%
Total Operating Expense	**19,210,877**	**20,777,246**	**20,873,294**	**1,174,344**	**22,047,638**	**5.6%**
Interest during Construction						0.0%
Total Non Operating Expense	-	-	-	-	-	0.0%
Total Expenses (Function Cost)	**19,210,877**	**20,777,246**	**20,873,294**	**1,174,344**	**22,047,638**	**5.6%**
Net Income	**4,103,676**	**2,505,076**	**1,857,664**	**(1,048,522)**	**809,142**	**-56.4%**
Appropriation						
Total Expenses			**20,873,294**	**1,174,344**	**22,047,638**	
Less: Non Cash items						
Landfill Care and Closure			1,964,896	-	1,964,896	
Depreciation and Amortization			3,469,319	958,722	4,428,041	
Total Non Cash			5,434,215	958,722	6,392,937	
Amount to be Appropriated (Cash Expenses)			**15,439,079**	**215,622**	**15,654,701**	

Solid Waste Services - Disposal
Reconciliation from 2015 Revised Budget to 2016 Approved Budget

		Positions		
	Appropriation	**FT**	**PT**	**T**
2015 Revised Budget	20,873,294	53	4	7
Changes in Existing Programs/Funding for 2016				
- Salary and benefits adjustments	133,921	5	(4)	(2)
- Non labor - contractual increases	(18,879)	-	-	-
- Adjust Debt Service	(5,000)	-	-	-
- Adjust MUSA	4,181	-	-	-
- Depreciation and amortization	958,722	-	-	-
- Charges from Other Departments	101,399	-	-	-
2016 Continuation Level	**22,047,638**	**58**	**-**	**5**
2016 Proposed Budget Changes				
- None	-	-	-	-
2016 Approved Budget	**22,047,638**	**58**	**-**	**5**
2016 Budget Adjustment for Accounting Transactions (Appropriation)				
- Depreciation and amortization	(4,428,041)	-	-	-
- Landfill Care and Closure	(1,964,896)	-	-	-
2016 Approved Budget (Appropriation)	**15,654,701**	**58**	**-**	**5**

Solid Waste Services - Disposal
2016 - 2021 Capital Improvement Program
(in thousands)

Project Category	2016	2017	2018	2019	2020	2021	Total
ARL Improvements	860	1,150	11,807	250	-	10,872	24,939
CTS Improvements	130	-	-	-	-	-	130
Equipment & Vehicles	2,165	3,330	2,300	1,585	5,710	2,935	18,025
Girdwood Improvements	-	55	-	-	-	-	55
Office Equipment & Technology	25	25	25	25	25	25	150
Total	**3,180**	**4,560**	**14,132**	**1,860**	**5,735**	**13,832**	**43,299**

Funding Source	2016	2017	2018	2019	2020	2021	Total
Clean Water Loan	110	-	11,807	-	-	10,872	22,789
Commercial Loan	-	-	-	-	-	-	-
Equity/Operations	3,070	4,560	2,325	1,860	5,735	2,960	20,510
Total	**3,180**	**4,560**	**14,132**	**1,860**	**5,735**	**13,832**	**43,299**

Solid Waste Services - Disposal
2016 Capital Improvement Budget
(in thousands)

Project Title	Debt	State/Fed Grant	Equity/ Operations	Total
ARL Drainage / Stormwater Study	-	-	25	25
ARL Evaporators (2)	-	-	400	400
ARL GCCS Blower Replacement / Rebuild	-	-	35	35
ARL GPS Survey Equipment	-	-	75	75
ARL Latex Paint Pump	-	-	10	10
ARL Leachate Blower Replacement / Rebuild	60	-	-	60
ARL Leachate Loading Pumps Replacement / Rebuild	50	-	-	50
ARL LFG Flare Building Gas Monitoring System Replacement	-	-	30	30
ARL Lighting Upgrades	-	-	10	10
ARL Perimeter Slope Interim Closures	-	-	25	25
ARL Reconstruct Fueling Island	-	-	90	90
ARL Tarp Deployment System	-	-	50	50
Cherry Pickers (2)	-	-	700	700
CTS Ramp Heater Manifolds	-	-	50	50
CTS Transfer Station Rehabilitative Study	-	-	80	80
Dozer (D155)	-	-	925	925
MT6 Trackless Tractor	-	-	160	160
Office Equipment and technology purchase	-	-	25	25
Pickup Truck	-	-	40	40
Tractors (2)	-	-	340	340
Total	**110**	**-**	**3,070**	**3,180**

Solid Waste Services - Disposal Utility
Statement of Cash Sources and Uses

	2014 Actual	2015 Proforma	2016 Approved
Sources of Cash Funds			
Operating Income	4,755,046	1,269,989	786,270
Depreciation, net of amortization	3,494,426	3,578,993	4,428,041
Amortization of Landfill Closure Costs	1,485,396	1,964,896	1,964,896
Deferred Revenue	157,147		
Capital Contribution	-	-	-
Interest Received	471,793	450,000	422,675
Changes in Assets and Liabilities	716,633	-	110,000
Total Sources of Cash Funds	**11,080,441**	**7,263,878**	**7,711,882**
Uses of Cash Funds			
Capital Construction	12,569,986	5,806,826	3,180,000
Debt Principal Payment	1,704,171	2,044,413	2,044,411
Debt Interest Payments	223,922	198,640	266,312
Landfill Post Closure Cash Reserve	1,622,132	1,738,531	1,964,896
MUSA	941,084	947,020	983,000
Total Uses of Cash Funds	**17,061,295**	**10,735,430**	**8,438,619**
Net Increase (Decrease) in Cash Funds	(5,980,854)	(3,471,552)	(726,737)
Cash Balance, January 1	**23,361,673**	17,380,819	13,909,267
Cash Balance, December 31	**17,380,819**	**13,909,267**	**13,182,530**
Detail of Cash and Investment Funds			
General Cash Less Customer Deposits	13,980,087	13,909,267	13,182,530
Construction Cash	3,400,732	-	-
Cash Balance, December 31	**17,380,819**	**13,909,267**	**13,182,530**
Landfill Post Closure Cash Reserve	11,637,332	13,375,863	15,340,759

Solid Waste Services - Refuse Collection
8 Year Summary
($ in thousands)

Financial Overview	2014 Actuals	2015 Proforma	2016 Approved	2017	2018	2019	2020	2021
				Forecast				
Revenues	10,851	11,014	11,353	11,353	11,353	11,353	11,353	11,353
Expenses	8,729	9,665	10,121	10,425	10,737	11,059	11,391	11,733
Net Income (Loss)	**2,122**	**1,349**	**1,232**	**929**	**616**	**294**	**(38)**	**(380)**
Budgeted Positions	27(111)	27 (109)	27 (107)	27 (107)	27 (107)	27 (107)	27 (107)	27 (107)
Capital Improvement Program	997	1,047	1,595	1,750	1,420	590	2,050	395
Bond Sales	-	-	-	-	-	-	-	-
Net Plant (12/31)	3,776	3,551	4,927	5,174	5,357	4,534	5,076	3,855
Utility Revenue Distribution	-	-	-	-	-	-	-	-
Net Assets (12/31)	10,709	9,812	11,208	12,304	13,093	13,565	13,711	13,520
General/Construction Cash Pool	9,059	8,753	9,701	10,261	10,929	12,104	11,487	12,182
IGC's - General Government	1,580	1,921	1,653	1,878	1,934	1,992	2,052	2,114
MUSA - 1.25%	N/A	N/A	500	N/A	N/A	N/A	N/A	N/A
MUSA - Regular	71	57	51	69	75	81	87	93
Total Outstanding Debt	-	-	-	-	-	-	-	-
Total Annual Debt Service	-	-	-	-	-	-	-	-
Debt Service Coverage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Debt/Equity Ratio	0/100	0/100	0/100	0/100	0/100	0/100	0/100	0/100
Residential Rate per month	$14.10 - $36.50 pay as you throw variable residential rates							
Commercial Rate (3Yd-1 per wk)	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00
Statistical/Performance Trends								
Waste Collected (Tons)	36,501	37,231	37,976	38,000	38,000	38,000	38,000	38,000
Average Residential Services	12,230	12,230	12,230	12,230	12,230	12,230	12,230	12,230
Average Dumpsters Services	4,378	4,378	4,378	4,378	4,378	4,378	4,378	4,378

Solid Waste Services - Refuse Collection
Statement of Revenues and Expenses

	2014 Actuals	2015 Proforma	2015 Revised	16 v 15 $ Change	2016 Approved	16 v 15 % Change
Operating Revenue						
Commercial	6,957,651	7,100,000	7,300,000	(72,500)	7,227,500	-0.99%
Residential	3,231,501	3,277,253	3,277,253	(4,253)	3,273,000	-0.13%
Dumpster Container Rental	463,420	460,436	465,436	(4,192)	461,244	-0.90%
Other Collection Revenues	98,232	99,000	95,000	205,000	300,000	215.79%
Total Operating Revenue	**10,750,804**	**10,936,689**	**11,137,689**	**124,055**	**11,261,744**	**1.11%**
Non Operating Revenue						
Interest from Cash Pool	95,557	77,000	77,000	4,500	81,500	5.84%
Unrealized Gains & Losses	785	-	-	-	-	-
Misc. non-operating Revenue	4,101	500	4,500	5,500	10,000	122.22%
Total Non Operating Revenue	**100,443**	**77,500**	**81,500**	**10,000**	**91,500**	**12.27%**
Total Revenue	**10,851,247**	**11,014,189**	**11,219,189**	**134,055**	**11,353,244**	**1.19%**
Operating Expenses						
Labor and Benefits						
Labor and Benefits	2,701,440	2,659,745	2,676,349	220,997	2,897,346	8.26%
Overtime	79,650	107,883	107,883	9,344	117,227	8.66%
Total Labor	2,781,090	2,767,628	2,784,232	230,341	3,014,573	8.27%
Non Labor						
Non Labor	3,405,164	3,616,393	3,616,393	(4,397)	3,611,996	-0.12%
Travel	1,503	3,000	3,000	-	3,000	0.00%
Transfers (MUSA and Gross receipts)	56,573	62,791	2,594,430	(2,042,778)	551,652	-78.74%
Depreciation and Amortization	905,372	1,294,305	1,294,305	(8,400)	1,285,905	-0.65%
Total Non Labor	4,368,612	4,976,489	7,508,128	(2,055,575)	5,452,553	-27.38%
Total Direct Cost	**7,149,701**	**7,744,117**	**10,292,360**	**(1,825,234)**	**8,467,126**	**-17.73%**
Charges from Other Departments	1,579,729	1,921,210	1,823,395	(169,853)	1,653,542	-9.32%
Total Operating Expense	**8,729,431**	**9,665,327**	**12,115,755**	**(1,995,087)**	**10,120,668**	**-16.47%**
Non Operating Expense						
Total Non Operating Expense	-	-	-	-	-	0.00%
Total Expenses (Function Cost)	**8,729,431**	**9,665,327**	**12,115,755**	**(1,995,087)**	**10,120,668**	**-16.47%**
Net Income	**2,121,816**	**1,348,862**	**(896,566)**	**2,129,142**	**1,232,576**	**-237.48%**
Appropriation						
Total Expenses			**12,115,755**	**(1,995,087)**	**10,120,668**	
Less: Non Cash items						
Depreciation and Amortization			1,294,305	(8,400)	1,285,905	
Total Non-Cash			1,294,305	(8,400)	1,285,905	
Amount to be Appropriated (Cash Expenses)			**10,821,450**	**(1,986,687)**	**8,834,763**	

Solid Waste Services - Refuse Collection
Reconciliation from 2015 Revised Budget to 2016 Approved Budget

		Positions		
	Appropriation	**FT**	**PT**	**T**
2015 Revised Budget	12,115,755	26	-	1
Changes in Existing Programs/Funding for 2016				
- Salary and benefits adjustments	230,341	-	-	-
- Non-Labor Adjustments	(4,397)			
- Charges from other Depts	(169,853)			
- Depreciation	(8,400)	-	-	-
- Adjust MUSA, Gross Receipts, Contributions	(2,042,778)	-	-	-
2016 Continuation Level	**10,120,668**	**26**	**-**	**1**
2016 Proposed Budget Changes				
- None	-	-	-	-
2016 Approved Budget	**10,120,668**	**26**	**-**	**1**
2016 Budget Adjustment for Accounting Transactions (Appropriation)				
- Depreciation and amortization	(1,285,905)	-	-	-
2016 Approved Budget (Appropriation)	**8,834,763**	**26**	**-**	**1**

Solid Waste Services - Refuse Collection
2016 - 2021 Capital Improvement Program
(in thousands)

Project Category	2016	2017	2018	2019	2020	2021	Total
Building Improvements	150	-	50	-	-	-	200
Containers/Dumpsters/Roll-offs & Lids	360	360	360	360	360	360	2,160
Data Processing	30	30	30	30	30	30	180
Office Equipment	5	5	5	5	5	5	30
Vehicle Replacement	1,050	1,355	975	195	1,655	-	5,230
Total	**1,595**	**1,750**	**1,420**	**590**	**2,050**	**395**	**7,800**

Funding Source	2016	2017	2018	2019	2020	2021	Total
Equity/Operations	1,595	1,750	1,420	590	2,050	395	7,800
Total	**1,595**	**1,750**	**1,420**	**590**	**2,050**	**395**	**7,800**

Solid Waste Services - Refuse Collection
2016 Capital Improvement Budget
(in thousands)

Project Title	Debt	State/Fed Grant	Equity/ Operations	Total
CTS Building Heating System/Chillers	-	-	150	150
Dumpster Dolly	-	-	75	75
Dumpsters/Roll-offs	-	-	275	275
Frontloader (1)	-	-	315	315
Lids	-	-	75	75
Pickup Truck	-	-	40	40
Replace Data Processing Equipment	-	-	30	30
Replace Office Equipment	-	-	5	5
Residential Roll Carts	-	-	10	10
Side loaders (2)	-	-	620	620
Total	**-**	**-**	**1,595**	**1,595**

Solid Waste Services - Refuse Collection
Statement of Cash Sources and Uses

	2014 Actual	2015 Proforma	2016 Approved
Sources of Cash Funds			
Operating Income	2,021,373	(896,566)	1,232,576
Depreciation, net of amortization	905,372	1,294,305	1,292,305
Interest Received	95,557	77,000	81,500
Changes in Assets and Liabilities	78,083	-	-
Total Sources of Cash Funds	**3,100,385**	**474,739**	**2,606,381**
Uses of Cash Funds			
Capital Construction	628,278	705,633	1,595,000
MUSA	56,573	51,828	63,000
Total Uses of Cash Funds	**684,851**	**757,461**	**1,658,000**
Net Increase (Decrease) in Cash Funds	2,415,534	(282,722)	948,381
Cash Balance, January 1	6,620,052	9,035,586	8,752,863
Cash Balance, December 31	**9,035,586**	**8,752,863**	**9,701,244**
Detail of Cash and Investment Funds			
General Cash Less Customer Deposits	7,736,483	8,752,863	9,701,244
Construction Cash	1,323,109	-	-
Cash Balance, December 31	**9,059,592**	**8,752,863**	**9,701,244**

About Solid Waste Services

Solid Waste Services (SWS) is composed of two separate utilities: 1) the Refuse Collections Utility that provides refuse collection service to residential and commercial customers in the "City of Anchorage" Service Area; 2) the Solid Waste Disposal Utility that operates multiple transfer stations and the regional landfill providing affordable and environmentally responsible municipal solid waste disposal services for the entire Municipality. SWS is divided into three organizations: 1) Refuse Collections and 2) Solid Waste Disposal, which are separate operating utilities, and 3) Administration, which is a support organization that fully charges out expenses to both Refuse Collections and Disposal Utilities.

Refuse Collection Utility

History
Refuse Collections Utility was originally a function of the former City of Anchorage Public Works Department. When the City and Borough merged in 1975, Refuse Collections became an enterprise activity of the Municipality.

Service
Refuse Collections Utility provides garbage collection to the service area of the former City of Anchorage, which is approximately 20% of the population of the Municipality of Anchorage. Since at least 1952, there has been mandatory service for all occupants of the Refuse Collections Utility service area. The Refuse Collections Utility has four types of services: commercial dumpsters, automated roll cart service, can and bag service, and curbside recycling.

Refuse Collections Utility services over 5,000 dumpsters per week with six daily dumpster routes, and two Saturday routes to serve its commercial and multi-family residential customers.

As a result of an automated trash and recycling collection service that began in the fall of 2009, most SWS residential customers are serviced using automated vehicles and roll carts. In 2014, the final phase of automated collection rollout will be completed and the refuse collection utility will be servicing five automated collection routes with only one remaining daily route for can/bag service. The utility also has a recycling pickup schedule.

Regulation
The Refuse Collections Utility is regulated by the Regulatory Commission of Alaska (RCA). The utility is granted the exclusive right to collect solid waste within its defined service area by a Certificate of Public Convenience and Necessity. The Alaska Public Utilities Commission (predecessor to the RCA) relinquished economic regulation authority to the Anchorage Municipal Assembly.

Environmental Mandates
Although there is no specific state or federal regulations governing refuse collection, the Utility must comply with a number of federal and state mandated regulations. These regulations include, but are not limited to, the Federal Clean Air Act, the Clean Water Act and OSHA. These regulations have and will continue to impact the economics and operations of the Refuse Collections Utility.

Physical Plant
The Refuse Collection Utility's assets include:

Industry Specific truck fleet
- 13 commercial refuse collection vehicles
- 19 residential refuse and recycling vehicles (automated and can/bag)
- 1 rear load vehicle for MOA paper collection and recycling
- 8 support vehicles

Currently, there is an average of 24,773 roll-carts and 1,977 dumpsters in service.

Refuse Collections maintains a 27,000 square foot building that contains vehicle maintenance, warm storage space, and administrative offices.

Future Planning Efforts
In 2015, SWS Refuse Utility implemented an Automated Refuse Route Management System (ARRMS) with up-to-date route information and GPS to make refuse collection operations more efficient and cost effective. Specifically, this system will photo-document waste containers that are overfull, not placed on curbside, or are out of compliance in some manner; provide a safe and convenient method for drivers to document extra charges; provide automated near-real-time communication between refuse collection vehicles and the back office systems; provide updated route information to refuse collection vehicle operators; track vehicle progress on route; integrate with SWS existing billing system; and provide moving map displays for drivers that show customer and navigation information.

Solid Waste Disposal Utility

History
Municipal solid waste disposal was originally a function of the City Public Works Department, which operated the city landfill at Merrill Field. Under unification, the Municipality acquired responsibility for five waste disposal sites from Peters Creek to Girdwood. The Solid Waste Disposal Utility was formed to operate and maintain these sites, while managing solid waste disposal matters throughout the Municipality. The five sites were closed and waste disposal was consolidated to a single site near Eagle River. The Anchorage Regional Landfill (ARL), an award winning, state-of-the-art, fully lined, modern landfill, was started in 1987 and is the only operating landfill in MOA.

Service
The Solid Waste Disposal Utility serves the entire MOA. The services include the disposal of solid waste and collection of household hazardous waste. Municipal solid waste is received at three transfer stations located within MOA. The waste is then transported by the Utility to ARL for final disposal.

The ARL has a total land area of approximately 275 acres and is being developed in phases called cells. Currently cells 1 through 7, 8a and 10 have been constructed, with cells 8b, 11, and 12 in 2015. There are two remaining cells that will begin development in 2020 with preliminary design starting as early as 2016. ARL is projected to have a total capacity in excess of 42.3 million cubic yards. It is estimated that ARL will reach full capacity in the year 2045. In 2014, 306,723 tons were deposited in ARL, only 1,441 tons less than in 2013. Currently,

because of the lack of new demolition projects in the construction industry, Solid Waste Disposal expects a decline in the tonnage again in 2015.

Solid Waste Disposal Utility also operates three transfer stations located at Girdwood, midtown Anchorage (Central Transfer Station, CTS), and ARL. The transfer stations allow the Solid Waste Disposal Utility to reduce traffic flow to the landfill and to restrict access to the working face of the landfill. CTS receives the largest amount of solid waste, having received over 220,438 tons in 2014 from over 163,680 customers. This facility has an operating capacity of 1,600 tons per day. The 2014 quantity was 7,428 tons less than 2013. The Solid Waste Disposal Utility operates a fleet of 29 transfer tractor and trailers that transport the solid waste from CTS. The trailers have a capacity of 120 yards each.

The Disposal Utility is responsible for post closure care and monitoring of former landfill sites at Merrill Field, Peters Creek (Loretta French Park), and International Airport Road (Della Vega Park). At each of these sites, the department must perform annual groundwater and landfill gas (LFG) migration monitoring. The Utility operates an active LFG collection system at Merrill Field to mitigate migration of LFG to commercial buildings constructed along Merrill Field Drive. The Utility also operates and maintains a leachate collection system along 15th Avenue to mitigate potential migration of groundwater contaminants to the Chester Creek system. Since no closure funds were ever designated for these sites, all post closure care activities must be funded out of the Utility's annual operating budget.

Solid Waste Disposal Utility operates a 6,000 square foot hazardous waste collection facility built in 1989. In 1992, the facility was the only Hazardous Waste facility in North America to receive Solid Waste Association of North America's System Excellence award. Through 2014, the facility has collected nearly 24 million pounds of hazardous waste that otherwise may have been improperly disposed of at the landfill, the storm drain system, or citizens' backyards.

Household hazardous waste can be dropped off at CTS or the Hazardous Waste Facility located at ARL. The hazardous waste is then handled by a contractor that sorts and processes the waste in proper containers. Hazardous products are shipped out of state to federally approved hazardous waste disposal sites. Other materials are rendered inert and landfilled, processed locally, or recycled. In March 2000, a new reuse program was successfully implemented. Anchorage residents bring household items such as paints, cleaners, and solvents to Reuse Centers at CTS or at ARL. The items are then stocked for other Anchorage residents to take home for reuse on household projects.

Regulation

The Solid Waste Disposal Utility is not economically regulated by any non-municipal agencies. However, the Utility operates under numerous permits and many EPA regulations. ARL is operated under a Solid Waste operating permit issued by the Alaska Department of Environmental Conservation (ADEC). This permit must be renewed every five years. ARL construction and certain operations must comply with the EPA Resource Conservation and Recovery Act (RCRA) subtitle D. The facility is also regulated under a Title V air emissions operating permit issued by ADEC. The Disposal Utility operates under two permits from AWWU for industrial water discharge, one for disposal of leachate from ARL and one for discharge of leachate contaminated groundwater at Merrill Field. ARL has permits from the U.S. Department of Fish and Wildlife and the Alaska Department of Fish and Game for bird management.

Environmental Mandates

The Solid Waste Disposal Utility must operate under, and comply with, numerous environmental mandates. These mandates have a significant economic impact on the cost of operations and construction for the Utility. The main environmental mandates that have a significant impact on the Disposal Utility are RCRA subtitle D, the Clean Air Act, New Source Performance Standards (NSPS), the Clean Water Act, SARA Title 3 (Super Fund), NESAP (asbestos), and NPDES (storm water discharge). In 2010, EPA added greenhouse gas monitoring and reporting requirements that affect both active and closed landfill sites. It is projected that the environmental mandates regarding operating and constructing a landfill will become even more stringent in the future.

Physical Plant
The Disposal Utility's assets include:

Anchorage Regional Landfill
- 275 acres, estimated to last through the year 2043.
- 42.3 million cubic yard capacity.
- Phased construction of cells lasting four to five years each.
- Nine of the twelve landfill cells are constructed.
- Located on municipal land.
- Scale house and a 22,000 square-foot shop with an adjoining storage facility.
- Heavy equipment fleet: dozers, loaders, dump trucks, boom truck, water truck, leachate trucks, tankers, lube trucks, grader, and solid waste compactor.
- Two leachate storage, treatment lagoons with a 2.9 million gallon capacity.
- Gas collection facility with 700 square foot blower and flare station with a 2,000 cubic feet per minute capacity enclosed flare.
- Gas processing facility processes gas to fuel quality and transports it by pipeline to Doyon Utility's power generation system to produce electricity on adjacent military lands. MOA is currently in a 20-year agreement with Doyon, in which Doyon will generate electricity from methane gas to sell to military customers on Joint Base Elmendorf Richardson (JBER).

Three transfer stations provide intermediate disposal, easy access for public
- Cash booths at Girdwood, CTS, and the ARL public site.
- Two scale houses, one each at CTS and ARL.
- 29 transfer tractor and trailers haul from stations to landfill.

Hazardous waste management
- 6,000 square foot collection facility for household hazardous waste.
- Opened in 1989, operated by private contractor.
- Received the System Excellence Award in North America from Solid Waste Association of North America.

Merrill Field
- Landfill gas collection system and leachate/groundwater collection system.

Future Planning Efforts
Future projects include:
- Development of remaining cells (cell 8c and 9) will occur by 2020 with an estimated cost of $22.3 million.
- Slop closure and storm water run off development is on-going.

- Expansion of gas collection system into cell 10 in 2015; cells 11 and 12 in 2020.
- Construction of pipeline to mitigate growing expense of hauling leachate.