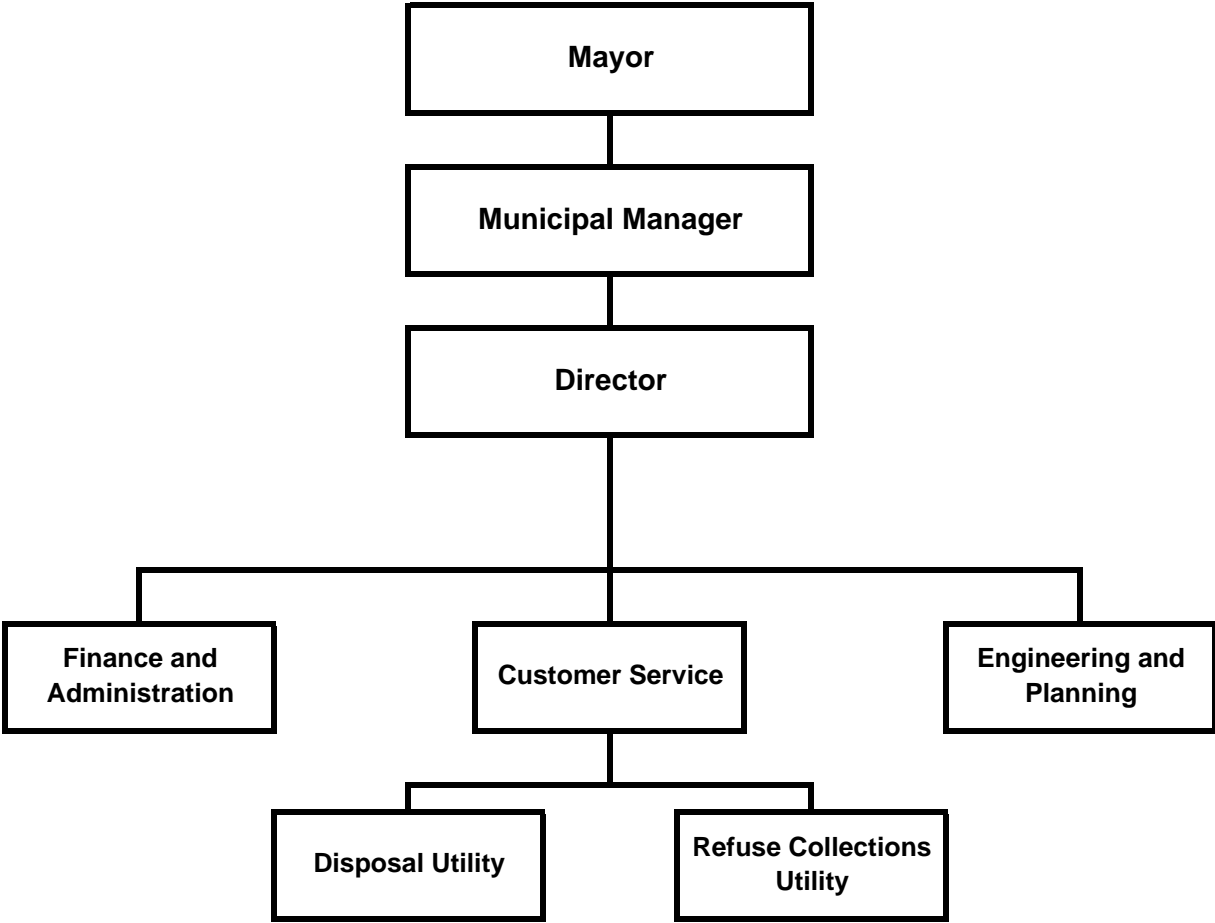


Solid Waste Services



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

Refuse Collection Utility provides both residential and commercial service to the City of Anchorage service area.

Commercial refuse collection is performed with a fleet of six commercial frontload refuse collections vehicles with a single operator on six routes serviced Monday through Friday and two routes on Saturdays. Refuse Collection services over 5,000 dumpsters weekly, with a route average of 635 dumpsters weekly and 127 dumpsters daily. All commercial refuse collected and 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 service is changing, with all customers shifting into automated operations in 2013. Residential refuse and curbside recycling collection is performed with a fleet of five automated sideload vehicles with a single operator on five routes serviced Monday through Friday. Three automated residential trash routes service over 10,000 customers weekly, with a daily route average of 726 services. Recycling curbside is performed by two routes that service over 9,500 customers weekly, with an average of 700 daily. The remaining 2,000 can and bag customers receive traditional can/bag service collected manually, and are scheduled for conversion to automated service in the 2013. All residential refuse is collected and unloaded at the Central Transfer Station. Residential recycling is transported and unloaded at the Anchorage Recycling Center. Refuse Collections 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. 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 being evaluated.

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

- General Foreman – Responsible for a total program of refuse collections.
- Working Foreman – 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. When Refuse Collection eliminates can and bag service in 2013, the residential manual 20 cubic yard vehicles and a 40 cubic yard frontloader will be sold.

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

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 the landfill.

The Girdwood Transfer Station (GTS) receives over 10,000 household garbage loads totaling 800 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 50 loads totaling 1,000 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 1,400 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 collection system. Leachate is transported in pipelines to collection lagoons for pre-treatment. The leachate is aerated 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 refuse, the excavation and hauling of daily cover material, the installation and maintenance of landfill gas recovery wells and lines, the hauling leachate, the building and maintaining roads, snow removal, dust control and equipment repair.

Created in 2008, the Disposal Utility is responsible for a municipality-wide recycling program which has seen success in the last four years, as 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. The most visible feature is the semi-annual 'Anchorage to Zero Waste Guide.' 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 that accepts aluminum cans, paper, plastic, and cardboard. The materials are taken to the Anchorage Recycling Center.

The program also provides support to public space recycling and to the Anchorage School District (ASD) which collects 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. The funds are used for developing local recycling businesses 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.

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 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 toward more 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. In 2011 and 2012, the division 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. The division provides support for planning fill operations, developing access roads, and efficiently mining cover materials from the site. In 2011, in addition to processing approximately 300,000 tons of solid waste, the landfill crew mined in excess of 450,000 tons of 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 to the two utilities' customers. Not only does the division manage Refuse Collection garbage service requests, explain rates, enforce solid waste municipal codes, manage billing and debt collection, Customer Service also greets Disposal Utility customers, and conducts business with the public and the commercial haulers 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 Enforcer. 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 all days of the week 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 setup 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 Enforcer 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 customer 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. The IT 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 two SWS 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 SWS IT 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 IT Staff at SWS recognizes the importance of technology in relation to business, and they are committed to ensuring that business requirements drive that technology—not vice versa.

The Safety Section. 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.

The Safety Section 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.

Finance & Accounting Section. 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 Accounts Payable & Payroll section. 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.

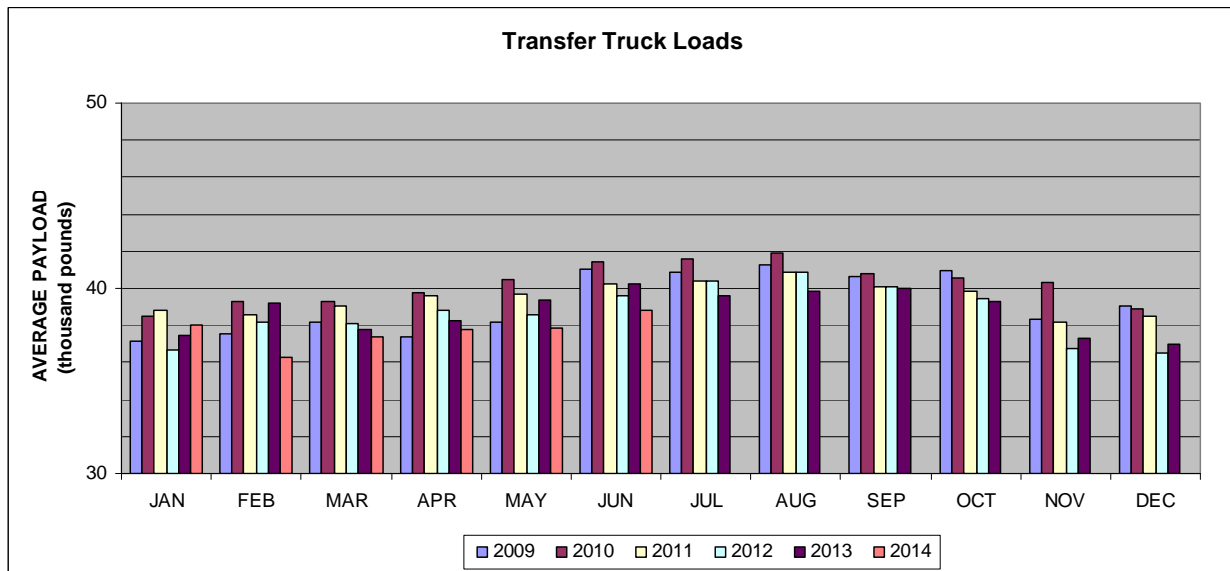


Table 1. Payload Data 2013 – 2014

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%

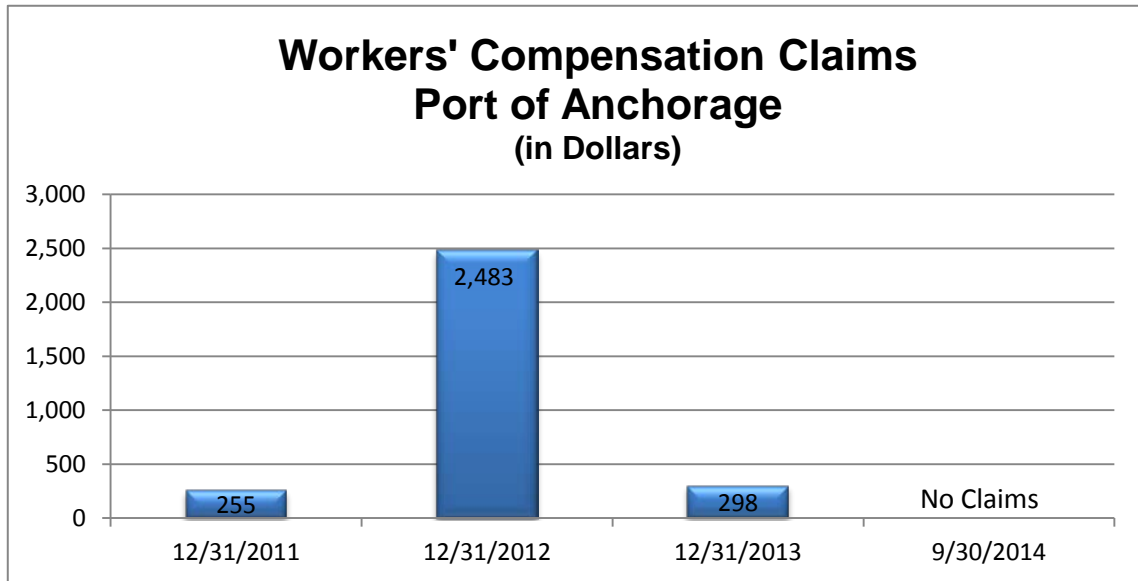
Table 2. Loads per Driver Shift Data 2013 – 2014

MONTH	SHIFTS \geq 5 LOADS	SHIFTS \geq 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.



Refuse Collections Division
Solid Waste Services Department

Anchorage: Performance. Value. Results.

Mission

Provide solid waste collection and disposal service to rate-paying customers within our defined service area.

Core Services

- Provide dumpster service to commercial and multifamily residential customers.
- Provide automated garbage and curbside recycle collection and disposal to residential customers.
- Provide manual garbage collection to residential customers not serviced by automated routes

Accomplishment Goals

- Reduce refuse disposal volumes by promoting waste reduction and increased curbside recycling diversion.
- Reduce injuries associated with residential refuse collection.

Performance Measures

Progress in achieving these goals will be measured by:

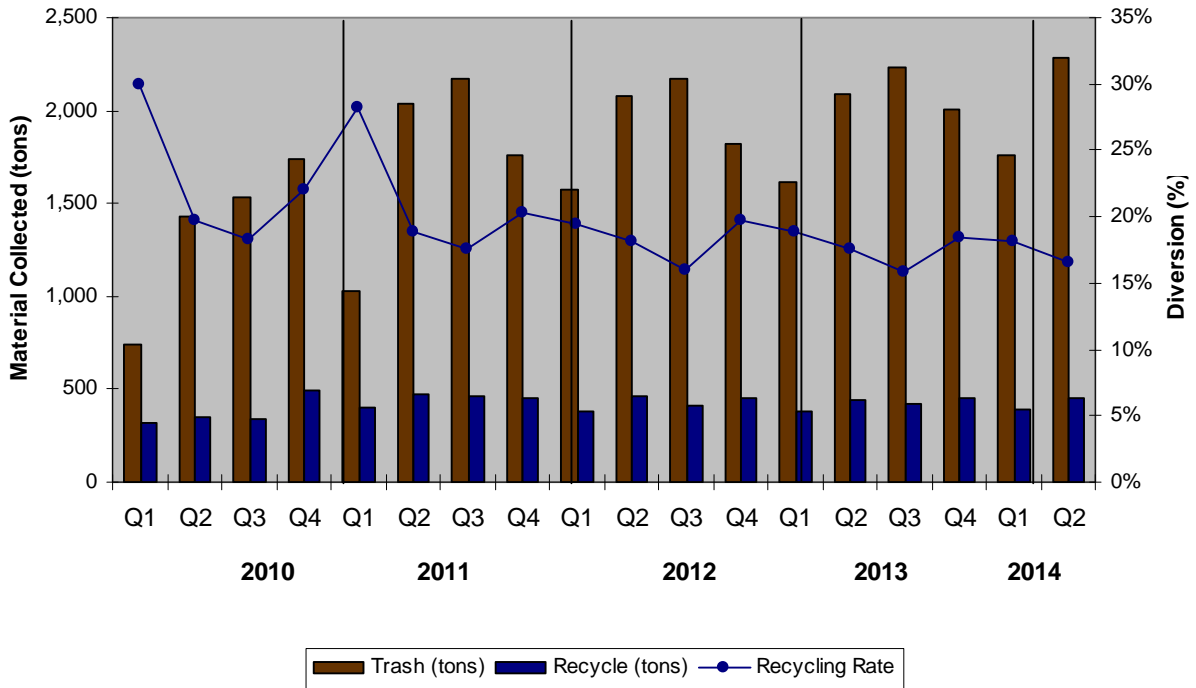
- Percent change in recyclable material diversion from the residential waste stream.
- Percent change in worker injuries

The following provides actual data from previous years which quantify these measures:

Measure #2: Increase curbside recycle diversion.

Waste and Recycle Tonnage

Automated Refuse / Recycle Collection
2010 (Q1) through 2014 (Q2)



Measure #3: Improved safety for Refuse Collection Workers
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Workers Comp Losses 2010 - 2014
Municipal Refuse Collection Utility

Service Type	Injury Type	2010		2011		2012		2013		2014	
		Incidents	Losses	Incidents	Losses	Incidents	Losses	Incidents	Losses	Incidents	Losses
Manual Residential	TLI	2	\$52,820	1	\$17,771	3	\$126,687	0	\$0	0	\$0
	MO / RO	5	\$0	1	\$98	3	\$2,426	2	\$81	1	\$172
Automated Residential	TLI	0	\$0	0	\$0	0	\$0	3	\$52,992	0	\$0
	MO / RO	3	\$0	1	\$0	0	\$0	0	\$0	0	\$0
Commercial	TLI	2	\$104,878	0	\$0	0	\$0	0	\$0	0	\$0
	MO / RO	2	\$8,900	0	\$0	7	\$3,246	2	\$154	1	\$552
Vehicle Maintenance	TLI	1	\$83,339	0	\$0	0	\$0	1	\$5,473	0	\$0
	MO / RO	1	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Other	TLI	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
	MO / RO	0	\$0	4	\$2,806	0	\$0	1	\$1,379	0	\$0
Total	TLI	5	\$241,037	1	\$17,771	3	\$126,687	4	\$58,465	0	\$0
	MO / RO	11	\$8,900	6	\$2,904	10	\$5,672	5	\$1,614	2	\$724

TLI = Time lost incident

MO = Incident required medical attention but no lost time

RO = Incident required no medical attention or lost time

Solid Waste Services Highlights and Future Events

Disposal Utility

To compare prior years to the 2015 budget, the Disposal Utility 2015 total budget is projected at \$20,620,038 compared to the 2014 approved budget of \$21,231,456 and 2014 Proforma of \$20,596,296. The 2015 budget is 2.9% less than the 2014 approved budget. The decrease is due to the retirement of various assets and revisions in current contracts which enabled the department to absorb higher labor, repair, and utility service costs.

The two items in the budget that are not appropriated by the Assembly are the non-cash items, depreciation and landfill closure expense, totaling \$5,434,215. Depreciation expense is projected at \$3,469,319 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 \$5,434,215 of non cash items from the total budget of \$20,620,038, results in a 2015 appropriation budget of \$15,185,823, .01% less than the 2014 Proforma budget (without non-cash items).

Total revenue for 2015 is projected at \$22,730,958, compared to the 2014 Proforma revenue of \$22,187,839. It is .3% higher than the 2014, primarily due to anticipated increases in tonnage due to new construction.

Net income of \$2,110,920 is forecast for 2015. With the higher anticipated expenses, an additional rate increase will likely be required in the future.

With a capital budget of \$3.6 million, the 2015 capital projects include the leachate projects, gas collection system repairs, building repairs, and landfill equipment.

Refuse Collection

To compare prior years to the Refuse Collection 2015 budget, the Refuse Collection's total operating budget is \$9,687,297. The 2014 Proforma \$9,243,195 and the 2014 approved budget \$9,311,992. The 2015 budget is 4.03% higher than the 2014 approved budget due to increasing labor as well as increases in depreciation and MUSA due to recent and anticipated asset purchases.

The Refuse Collection budget authorization figure will exclude \$1,294,305 of depreciation. Although the budget appropriation excludes non-cash items, depreciation will be included in the utility's financial statements.

Removing the \$1,294,305 of depreciation from the total budget of \$9,687,297, results in a 2015 appropriation budget of \$8,392,992, .01% less than the 2014 Proforma (without depreciation).

Total revenue for 2015 is projected at \$11,219,189, compared to the 2014 Proforma revenue of \$11,191,463, a 4.29% decrease. Without a rate increase revenues are expected to be relatively stable so the decrease is primary based on current customer behavior in regards to bin sizes and frequency of pickups.

The estimated Refuse Collection net income is \$1,531,892 and a capital budget of \$1.05 million is proposed. Capital expenses include the purchase of two automated side loader vehicles, building improvements, as well as dumpsters 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 utilizing the 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, but the actual revenue generated will ultimately depend upon market price of natural gas in Southcentral Alaska.

Currently Doyon Utilities Inc. holds a minor air quality permit which will allow continuous operation of five generating units at the landfill gas power plant on Fort Richardson. In the summer months, landfill gas consumption is less and less demands results in the need to shut down one or more generating units. Currently, there is limited demand since there is no energy integration between Ft. Richardson and Elmendorf as well as any interest from other power providers. This limits the amount of revenue that can be generated by the project.

Solid Waste Services Workforce Projections

Division	2013	2014	2015	2016	2017	2018	2019	2020
Refuse Collection	28	26	26	26	26	26	26	26
Disposal	57	57	57	57	57	57	57	57
Administration	20	21	20	20	20	20	20	20
Total full time	105	104	103	103	103	103	103	103
Part time/Seasonal	8	7	7	7	7	7	7	7
Total Positions	113	111	110	110	110	110	110	110
Total FTE	110.5	109	108	108	108	108	108	108

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

Financial Overview	2013	2014	2015	2016	2017	2018	2019	2020
	Actuals	Proforma	Approved	Forecast				
Revenues	22,614	22,188	22,731	23,186	23,649	24,122	24,605	25,097
Expenses	19,385	20,596	20,620	21,032	21,453	21,882	22,320	22,766
Net Income (Loss)	3,230	1,592	2,111	2,153	2,196	2,240	2,285	2,331
Workforce Authorized per Budget *	63 (113)	63 (111)	63 (110)	63 (110)	63 (110)	63 (110)	63 (110)	63 (110)
*Total number of positions includes 20 admin, 63 disposal and 27 refuse collection for the 2015 Approved budget.								
Capital Improvement Program	-	-	3,580	7,917	2,305	11,927	2,140	2,790
Bond Sales/ New Debt	-	4,875	501	930	-	-	-	-
Net Plant (12/31)	55,002	53,086	54,399	60,635	61,281	71,570	72,096	73,821
Utility Revenue Distribution	-	-	-	-	-	-	-	-
Net Assets (12/31)	30,597	30,597	33,407	39,507	40,487	43,052	45,167	47,932
General /Construction Cash Pool	(5,567)	(6,901)	11,800	4,036	9,107	113	9,945	9,341
Unrestricted Net Assets	(3,979)	(2,387)	(653)	1,128	2,956	4,832	6,759	8,815
Future Landfill Closure Liability	25,578	26,399	28,898	29,765	30,869	32,770	34,728	34,728
Landfill Closure Cash Reserve**	8,982	10,890	12,855	13,066	14,912	16,813	18,771	19,933

**In 2008, a restricted account to fund landfill closure & post-closure was approved by the MOA Assembly. August 31, 2014 balance is \$10.1 million

Total Cash	\$8,484	\$7,029	\$6,273	\$8,426	\$10,622	\$12,862	\$15,147	\$17,478
IGCs - General Government	2,326	2,524	2,216	2,282	2,351	2,421	2,494	2,569
MUSA - 1.25%	248	235	268	269	269	270	272	274
MUSA - Regular	662	673	679	686	693	700	707	714
Total Outstanding Debt	15,026	15,027	17,880	15,857	13,835	12,371	12,907	9,299
Total Annual Debt Service	1,967	1,916	2,267	1,681	1,659	1,638	1,614	1,065
Debt Coverage	3.42	3.07	2.82	3.47	3.52	3.58	3.65	5.56
Debt/Equity Ratio	15/52	15/53	17/53	15/54	15/56	13/57	13/57	9/56
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	308,164	315,717	326,768	326,768	326,768	326,768	326,768	326,768
Vehicle Count	253,872	258,949	264,128	264,128	264,128	264,128	264,128	264,128

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

	2013 Actuals	2014 Proforma	2014 Revised	2015 Approved	14 v 15 % Change
Operating Revenue					
Landfill Disposal Fees	19,544,568	19,320,771	19,962,509	19,610,583	-1.8%
Hazardous Waste Fees	148,357	132,942	160,000	132,000	-17.5%
Community Recycling Residential	158,110	130,021	155,700	155,700	0.0%
Community Recycling Commercial	428,092	351,654	280,474	350,000	24.8%
Landfill Methane Gas Sales	1,792,504	1,650,000	1,351,118	1,650,000	22.1%
Recycle Rebate	(75,599)	(75,599)	(125,000)	(75,000)	-40.0%
Reimbursed Costs	222,289	280,000	300,000	300,000	0.0%
Unsecured Loads	16,170	14,904	17,851	15,000	-16.0%
Other	5,125	5,000	5,000	5,000	0.0%
Total Operating Revenue	22,239,616	21,809,693	22,107,652	22,143,283	0.2%
Non Operating Revenue					
Interest from cash pool	249,961	350,000	171,825	322,675	87.8%
Misc. non-operating Revenue	341,735	166,000	300,000	140,000	-53.3%
Unrealized Gains/Losses	(216,948)	(137,855)	25,000	25,000	0.0%
Other Property Sales/Disposition of Assets	(122)	-	50,000	100,000	100.0%
Total Non Operating Revenue	374,626	378,145	546,825	587,675	7.5%
Total Revenue	22,614,242	22,187,838	22,654,477	22,730,958	0.3%
Operating Expenses					
Labor					
Labor and Benefits	5,068,457	5,236,528	5,617,632	5,679,141	1.1%
Overtime	588,032	370,388	499,213	499,213	0.0%
Total Labor	5,656,489	5,606,916	6,116,845	6,178,354	1.0%
Non Labor					
Non Labor	5,137,984	5,625,000	5,655,261	5,568,920	-1.5%
Travel	5,889	6,964	5,000	5,000	0.0%
Landfill Closure Costs	1,853,813	1,908,990	1,908,990	1,964,896	2.9%
Debt Service	233,631	233,634	233,671	270,753	15.9%
Depreciation and Amortization	3,260,936	4,053,302	4,053,302	3,469,319	-14.4%
Transfers (Musa and Gross receipts)	910,221	907,866	1,004,763	946,599	-5.8%
Total Non Labor	11,402,474	12,735,756	12,860,987	12,225,487	-4.9%
Total Direct Cost	17,058,963	18,342,672	18,977,832	18,403,841	-3.0%
Charges from other departments	2,325,725	2,253,624	2,253,624	2,216,197	-1.7%
Total Operating Expense	19,384,688	20,596,296	21,231,456	20,620,038	-2.9%
Non Operating Expense					
Total Non Operating Expense	-	-	-	-	-
Total Expenses (Function Cost)	19,384,688	20,596,296	21,231,456	20,620,038	-2.9%
Net Income	3,229,554	1,591,543	1,423,021	2,110,920	48.3%
Appropriation					
Total Expenses				20,620,038	
Less: Non Cash items					
Landfill Care and Closure				1,964,896	
Depreciation and Amortization				3,469,319	
Total Non Cash				5,434,215	
Amount to be Appropriated (Cash Expenses)				15,185,823	

Solid Waste Services - Disposal

Reconciliation from 2014 Revised Budget to 2015 Approved Budget

	Appropriation	Positions		
		FT	PT	T
2014 Revised Budget	21,231,456	57	6	-
Transfers (to)/from Other Agencies				
- Charges to/from others	(37,427)	-	-	-
Changes in Existing Programs/Funding for 2015				
- Salary and benefits adjustments	61,509	-	-	-
- Non labor - contractual increases	26,002	-	-	-
- Adjust Debt Service	37,082	-	-	-
- Adjust MUSA	(58,164)	-	-	-
- Depreciation and amortization	(583,983)	-	-	-
- Landfill Care and Closure	55,906	-	-	-
2015 Continuation Level	20,732,381	57	6	-
2015 Proposed Budget Changes				
- Various non labor savings - professional services, advertising, repair and maintenance, and contractual services	(112,343)	-	-	-
2015 Approved Budget	20,620,038	57	6	-
2015 Budget Adjustment for Accounting Transactions (Appropriation)				
- Depreciation and amortization	(3,469,319)	-	-	-
- Landfill Care and Closure	(1,964,896)	-	-	-
2015 Approved Budget (Appropriation)	15,185,823	57	6	-

Solid Waste Services - Disposal
2015 - 2020 Capital Improvement Program
(in thousands)

Project Category	2015	2016	2017	2018	2019	2020	Total
ARL Improvements	745	1,616	1,240	9,057	-	-	12,658
CTS Improvements	-	176	60	280	-	-	516
Equipment & Vehicles	2,810	6,100	980	2,565	2,115	2,765	17,335
Office Equipment & Technology	25	25	25	25	25	25	150
Total	3,580	7,917	2,305	11,927	2,140	2,790	30,659

Funding Source	2015	2016	2017	2018	2019	2020	Total
Clean Water Loan	501	930	-	-	-	-	1,431
Commercial Loan	-	-	-	-	-	-	-
Equity/Operations	3,079	6,987	2,305	11,927	2,140	2,790	29,228
Total	3,580	7,917	2,305	11,927	2,140	2,790	30,659

Solid Waste Services - Disposal
2015 Capital Improvement Budget
(in thousands)

Project Title	Debt	State/Fed Grant	Equity/ Operations	Total
ARL Alarm Panel Replacement	-	-	15	15
ARL Construct GCCS A-2 Header	-	-	300	300
ARL HHW Fire Doors	-	-	80	80
ARL Leachate Force Main Design	100	-	-	100
ARL Separate LFG Main Header for Blower Bldgs	-	-	250	250
Dozer	-	-	900	900
Light Plant	-	-	30	30
Loader	-	-	650	650
Misc Trucks	-	-	35	35
Office Equipment and technology purchase	-	-	25	25
Trackless	-	-	160	160
Tractors	401	-	259	660
Trailers	-	-	375	375
Total	501	-	3,079	3,580

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

	2013 Actual	2014 Proforma	2015 Approved
Sources of Cash Funds			
Operating Income	4,248,815	2,499,409	3,129,633
Depreciation, net of amortization	3,260,936	4,053,302	3,469,319
Amortization of Landfill Closure Costs	1,853,813	1,908,990	1,964,896
Deferred Revenue	146,271	-	-
Capital Contribution	1,967,996	-	-
Interest Received	108,133	-	-
Changes in Assets and Liabilities	(855,522)	-	-
Total Sources of Cash Funds	10,730,442	8,461,701	8,563,848
Uses of Cash Funds			
Capital Construction	7,638,936	2,266,454	3,580,000
Debt Principal Payment	1,718,268	1,718,267	1,942,007
Debt Interest Payments	248,985	233,634	198,639
Landfill Post Closure Cash Reserve	1,848,416	1,908,990	1,964,896
MUSA	910,221	907,866	946,599
Total Uses of Cash Funds	12,364,826	7,035,211	8,632,141
Net Increase (Decrease) in Cash Funds	(1,634,384)	1,426,490	(68,293)
Cash Balance, January 1	24,816,025	23,181,641	24,608,131
Cash Balance, December 31	23,181,641	24,608,131	24,539,838
Detail of Cash and Investment Funds			
General Cash Less Customer Deposits	11,233,303	24,608,131	24,539,838
Construction Cash	11,948,338	-	-
Cash Balance, December 31	23,181,641	24,608,131	24,539,838
Landfill Post Closure Cash Reserve	10,015,200	11,924,190	13,889,086

Solid Waste Services - Refuse Collection 8 Year Summary

(\$ in thousands)

Financial Overview	2013	2014	2015	2016	2017	2018	2019	2020
	Actuals	Proforma	Approved	Forecast				
Revenues	8,814	11,191	11,219	11,219	11,219	11,219	11,219	11,219
Expenses	8,789	9,243	9,687	9,978	10,277	10,586	10,903	11,230
Net Income (Loss)	25	1,948	1,532	1,241	942	634	316	(11)
Workforce Authorized per Budget*	27 (113)	27 (111)	27 (110)	27 (110)	27 (110)	27 (110)	27 (110)	27 (110)
*Total number of positions includes 20 admin, 62 disposal and 27 refuse collection for the 2015 Approved budget.								
Capital Improvement Program	-	-	1,047	2,345	1,767	1,048	1,201	1,379
Bond Sales	-	-	-	-	-	-	-	-
Net Plant (12/31)	3,776	3,551	4,379	5,221	5,751	5,386	5,079	4,842
Utility Revenue Distribution	-	-	-	-	-	-	-	-
Net Assets (12/31)	9,393	12,277	13,809	15,050	15,992	16,626	16,942	16,931
General/Construction Cash Pool	6,620	7,500	8,079	8,270	8,739	9,619	10,029	9,933
IGCs - General Government	1,650	1,921	1,943	2,001	2,062	2,123	2,187	2,253
MUSA - 1.25%	-	-	-	-	-	-	-	-
MUSA - Regular	71	57	63	69	75	81	87	93
Total Outstanding Debt	-	-	-	-	-	-	-	-
Total Annual Debt Service	-	-	-	-	-	-	-	-
Debt Service Coverage	-	-	-	-	-	-	-	-
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)	\$85.70	\$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

	2013 Actuals	2014 Proforma	2014 Revised	2015 Approved	14 v 15 % Change
Operating Revenue					
Commercial	4,965,476	7,102,753	7,855,386	7,300,000	-7.1%
Residential	3,238,729	3,452,613	3,277,253	3,277,253	0.0%
Dumpster Container Rental	461,050	459,685	460,436	465,436	1.1%
Other Collection Revenues	103,585	97,155	123,000	99,000	-19.5%
Total Operating Revenue	8,768,840	11,112,205	11,716,075	11,141,689	-4.9%
Non Operating Revenue					
Interest from cash pool	58,818	52,754	5,000	77,000	1440.0%
Unrealized Gains & Losses	(51,684)	26,004	-	-	0.0%
Misc. non-operating Revenue	38,206	500	500	500	0.0%
Total Non Operating Revenue	45,340	79,258	5,500	77,500	1309.1%
Total Revenue	8,814,180	11,191,463	11,721,575	11,219,189	-4.3%
Operating Expenses					
Labor					
Labor and Benefits	2,601,522	2,597,589	2,582,768	2,659,745	3.0%
Overtime	95,532	92,455	107,883	107,883	0.0%
Total Labor	2,697,054	2,690,044	2,690,651	2,767,628	2.9%
Non Labor					
Non Labor	3,478,948	3,626,082	3,691,154	3,616,393	-2.0%
Travel	2,731	120	3,163	3,000	-5.2%
Transfers (Musa and Gross receipts)	71,165	56,573	56,648	62,791	10.8%
Depreciation and Amortization	889,752	949,166	949,166	1,294,305	36.4%
Total Non Labor	4,442,596	4,631,941	4,700,131	4,976,489	5.9%
Total Direct Cost	7,139,650	7,321,985	7,390,782	7,744,117	4.8%
Charges from other departments	1,649,819	1,921,210	1,921,210	1,943,180	1.1%
Total Operating Expense	8,789,469	9,243,195	9,311,992	9,687,297	4.0%
Non Operating Expense					
Total Non Operating Expense	-	-	-	-	0.0%
Total Expenses (Function Cost)	8,789,469	9,243,195	9,311,992	9,687,297	4.0%
Net Income	24,711	1,948,268	2,409,583	1,531,892	-36.4%
Appropriation					
Total Expenses				9,687,297	
Less: Non Cash items					
Depreciation and Amortization				1,294,305	
Total Non-Cash				1,294,305	
Amount to be Appropriated (Cash Expenses)				8,392,992	

Solid Waste Services - Refuse Collection Reconciliation from 2014 Revised Budget to 2015 Approved Budget

	Appropriation	Positions		
		FT	PT	T
2014 Revised Budget	9,311,992	26	-	1
Transfers (to)/from Other Agencies				
- Charges to/from others	21,970	-	-	-
Changes in Existing Programs/Funding for 2015				
- Salary and benefits adjustments	76,977	-	-	-
- Adjust MUSA	6,143	-	-	-
- Depreciation	345,139	-	-	-
2015 Continuation Level	9,762,221	26	-	1
2015 Proposed Budget Changes				
- Misc. Non Labor Savings - diesel, advertising, repair & maintenance, & contractual services	(74,924)	-	-	-
2015 Approved Budget	9,687,297	26	-	1
2015 Budget Adjustment for Accounting Transactions (Appropriation)				
- Depreciation and amortization	(1,294,305)	-	-	-
2015 Approved Budget (Appropriation)	8,392,992	26	-	1

Solid Waste Services - Refuse Collection
2015 - 2020 Capital Improvement Program
(in thousands)

Project Category	2015	2016	2017	2018	2019	2020	Total
Building Improvements	50	-	-	-	-	-	50
Containers/Dumpsters & Lids	350	350	350	350	350	350	2,100
Data Processing	30	30	30	30	30	30	180
Office Equipment	5	5	5	5	5	5	30
Vehicle Replacement	612	1,960	1,382	663	816	994	6,427
Total	1,047	2,345	1,767	1,048	1,201	1,379	8,787

Funding Source	2015	2016	2017	2018	2019	2020	Total
Equity/Operations	1,047	2,345	1,767	1,048	1,201	1,379	8,787
Total	1,047	2,345	1,767	1,048	1,201	1,379	8,787

Solid Waste Services - Refuse Collection
2015 Capital Improvement Budget
(in thousands)

Project Title	Debt	State/Fed Grant	Equity/ Operations	Total
Carpet Admin Bldg	-	-	25	25
Dumpsters	-	-	275	275
Energy Efficient Lighting/emergency	-	-	25	25
Lids	-	-	75	75
Replace Data Processing Equipment	-	-	30	30
Replace Office Equipment	-	-	5	5
Side loaders	-	-	612	612
Total	-	-	1,047	1,047

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

	2013 Actual	2014 Proforma	2015 Approved
Sources of Cash Funds			
Operating Income	55,263	2,004,841	1,594,683
Depreciation, net of amortization	889,752	949,166	1,294,305
Interest Received	1,349	-	-
Changes in Assets and Liabilities	11,672	-	-
Total Sources of Cash Funds	958,036	2,954,007	2,888,988
Uses of Cash Funds			
Capital Construction	18,762	869,411	1,047,000
MUSA	71,165	56,573	62,791
Total Uses of Cash Funds	89,927	925,984	1,109,791
Net Increase (Decrease) in Cash Funds	868,109	2,028,023	1,779,197
Cash Balance, January 1	5,751,943	6,620,052	8,648,075
Cash Balance, December 31	6,620,052	8,648,075	10,427,272
Detail of Cash and Investment Funds			
General Cash Less Customer Deposits	5,328,664	8,648,075	10,427,272
Construction Cash	1,291,388	-	-
Cash Balance, December 31	6,620,052	8,648,075	10,427,272

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.

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

There are currently 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 will be implementing 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 expected to be completed in late 2014 to early 2015. There are two remaining cells that will begin development in 2020. 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 2043. In 2013, 308,164 tons were deposited in ARL, 23,249 tons less than in 2012, a 7.5% decline from 2012.

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 227,330 tons in 2013 from over 169,051 customers. This facility has an operating capacity of 1,600 tons per day. The 2013 quantity was 5790 tons more than 2012. 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 2013, 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. In 2013, over 2,020 people took advantage of the program and as a result over 19,822 items were reused.

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.
- One scale house at CTS.
- 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 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.