A Performance Audit of The Salt Lake Valley Solid Waste Management Facility



Report Number 2015-07

November 2015



Office of the Salt Lake County Auditor



SCOTT TINGLEY CIA, CGAP Salt Lake County Auditor STingley@slco.org

CHERYLANN JOHNSON MBA, CIA, CFE Chief Deputy Auditor CAJohnson@slco.org

2001 S State Street, N3-300 PO Box 144575 Salt Lake City, UT 84114-4575

(385) 468-7200; TTY 711 (385) 468-7201 / fax December 31, 2015

Russ Wall Director, Department of Public Works Salt Lake County Government Center 2001 S State Street, Suite N3-200 Salt Lake City, UT 84190-3050

Re: A Performance Audit of the Salt Lake Valley Solid Waste Management Facility

Dear Mr. Wall,

Transmitted herewith is our report, *A Perfromance Audit of the Salt Lake Valley Solid Waste Management Facility* (Report No. 2015-7). An Exectuvie Summary of the report is found on page one. Our overall objective was to analyze the Solid Waste Management Division's operational performance and management's effectiveness in addressing a declining financial position.

We found that although Solid Waste Management has continually shown positive results from net operations over time, fund balance reserves are declining. We also found that some management decisions may have contributed to this decline, and that some of those decisions actually resulted in a negative return on investment for certain projects at both the Transfer Station and the Landfill Facility.

Futhermore, our work highlights the fact that although Salt Lake County is an equal partner with Salt Lake City in the Solid Waste Management Facility joint venture, the County bears the additional burden of assuming all of the operational risks that are associated with managing and operating the Landfill. We acknowledge that for governmental financial reporting purposes, the Solid Watse Management Division's activities are fairly and accurately represented in the County's Comprehensive Annual Financial Statements (CAFR). However, in our opinion, the County takes on a much more active ownership role in the partnership by assuming these operational risks in addition to the risks of joint ownership.

We truly appreciate the time and efforts of your staff and the Solid Waste Management Division. Our work was possible because of their cooperation, time, and attention to our requests. In our report, we identify findings and recommend actions to improve operations, ensure greater accountability, and better safeguard County assets.

We will be happy to meet with you and your staff to discuss any item contained in the report for clarification or in order to facilitate the implementation of the recommendations.

Sincerely,

Scott Tingley, CIA, CGAP Salt Lake County Auditor

Cc: Ben McAdams, County Mayor



Cc: Darrin Casper, Chief Financial Officer
Jared Steffey, Department of Public Works Fiscal Administrator
John Ioannou, Solid Waste Management Division Director
Larry Hansen, Solid Waste Management Division Administrative and Fiscal Manager

ST/rr

Executive Summary

The Salt Lake Valley Solid Waste Management Facility (SWM) is jointly owned by Salt Lake City and Salt Lake County. SWM operates both a landfill and a conveniently located waste transfer station. A five-member Solid Waste Management Council reviews and approves major budgetary and operational decisions. Despite joint ownership, the County manages the facility in its entirety with a few exceptions. The County pays invoices and hires and maintains all employees on its payroll. SWM reports financial activity as an enterprise fund within governmental accounting, meaning that expenses are covered by fees collected for disposing of waste at the facility and not by taxpayer funds. As such, SWM management continually monitors operational profitability, including the amount of revenues collected and expenditures.

Why We Audited the Salt Lake Valley Solid Waste Management Facility

Salt Lake County Public Works administrators requested this audit as a means to investigate, address, and make recommendations for a deteriorating financial position at the Salt Lake Valley Solid Waste Management Facility. While some indicators do create concern, other indicators reflect positive results from operations.

- Revenues exceeded expenses. Except in 2013, operating revenues exceeded expenses from 2008 through 2014.
- The facility has maintained a positive fund balance. The Solid Waste Management fund has a positive fund balance that was \$37.5 million as of December 31, 2014.

What We Found

The Salt Lake Valley Solid Waste Management facility's financial position has deteriorated slightly. Despite a positive fund balance, we found the following factors that contributed to concern about SWM's financial viability.

 A continual decline in the positive fund balance since 2009. Since 2009, the fund balance has decreased 2% to 5% each year. From 2009 to 2014 the fund balance in total dropped 16%, from \$44 million to \$37 million.

- A precipitous decline in unrestricted cash.
 Unrestricted cash in 2005 of \$21 million dropped to \$7 million by the next year, and by 2014 ended at a negative balance of (\$816,755).
 Unrestricted cash is used in day-to-day operations, including payroll and ordinary expenses.
- A marginal decline in revenues after 2008.

 Revenues dropped from \$14.1 million in 2008 to \$13.0 million in 2014, an 8% decline.
- A pattern of historically higher revenues prior to 2008. Revenues in years leading up to 2008 significantly outpaced succeeding years. The year 1999 provided a prime example of revenue levels previously achieved. Though admittedly a stellar economic year, in 1999 SWM collected \$17.4 million, which represented \$4.4 million more than in 2014 and \$5.6 million more than in 2013.
- An overestimate of revenues in the 2014
 budget. SWM management budgeted landfill charges of \$12.7 million in 2014 but only collected \$11.3 million, a \$1.3 million difference.
- Poor management decisions and a changing market landscape have led to a declining financial position.
- Conflicts within management created an environment where some revenue growth may have been impeded.
- Some business decisions and capital asset purchases resulted in a negative return on investment.
- Cash handling procedures and asset management improved over prior years but some issues still need to be addressed.
- The SWM facility has a lower level of tonnage and revenues compared to other county facilities we surveyed.

What We Recommend

To more effectively control costs, SWM should:

- Monitor capital acquisitions and expenditures to help prevent further erosion of the fund balance.
- Determine the impact on revenues of the fee restructure in 2015 and the need for additional adjustments to increase fund balances.

- Implement internal cost accounting practices to help control expenditures.
- Determine whether restricted fund balances are maintained at unreasonably high levels to the detriment of unrestricted fund balances.

To improve financial viability, SWM should:

- Sell the shredders and conveyors as necessary to prevent further losses.
- Dismantle and sell the transfer station crane.
- Recognize an impairment loss due to the decline in service utility of the crane. The crane should then be depreciated based on its new adjusted value.
- Increase the price of its compost to approximate the break-even level or increase the volume sold.
- Improve compost quality through eliminating contaminants.
- Achieve greater coordination with Salt Lake City to ensure that unnecessary losses are not incurred regarding methane gas monitoring and pipe construction.
- Resolve management conflicts, reinforce division goals and vision, and communicate employee expectations to improve profitability and increase reserve fund balances.

To improve the reporting of financial information, SWM should:

- Reconcile revenue recorded in WasteWORKS with revenue recorded in the County's financial system.
- Integrate database information between WasteWORKS and the County's financial system for the purpose of automating accounting entries.
- Use accrual accounting for recognizing revenues and for bad debt and uncollectible accounts.
- Discuss with Mayor's Financial Administration the proper financial reporting requirements for the entity.

To improve controls over cash handling and asset management, SWM should:

- Implement an asset inventory system that ties together all numbering systems of different County agencies.
- Record all daily shortages and overages on the MPF Form 11, Cash Over/Short Log.
- Request that the vendor for the WasteWORKS system to modify their software to provide an amount voided for each void recorded on the daily transaction report.
- Ensure that all voids are documented as to cause and include necessary authorizing supervisor approval and signatures.



A Performance Audit of

The Salt Lake Valley Solid Waste Management Facility

Report Number 2015-07

November 2015

Scott Tingley, CIA, CGAP Salt Lake County Auditor

Cherylann Johnson, MBA, CIA, CFE, CRMA Chief Deputy Auditor

> Audit Manager: Larry Decker, CPA, CIA

Audit Staff: James Fire, MBA/Acc Todd Livingston, JD Leonardo Flores David Lewis This page intentionally left blank.

Table of Contents

Executive Summary	.1
Introduction	.7
Audit Scope and Methodology	.8
Section One: Trends in Solid Waste Management's Financial Position1	.1
Finding 1: The financial position of the Salt Lake Valley Solid Waste Management Facility has steadily declined in the last five years	
Finding 2: Revenues, expenses, and tonnage trends have varied over the last 10 years	.7
Finding 3: Solid Waste Management is not controlling costs effectively1	.8
Finding 4: Solid Waste Management lost a total of \$272,000 in revenue in 2014 from providing free waste disposal services to the City of South Salt Lake.	0
Section Two: Return on Investment2	:3
Finding 5: The purchase and use of shredders produced a negative return on investment (ROI)2	:3
Finding 6: The transfer station created a positive return on investment in 2014 compared to a negative return on investment for the landfill.	:6
Finding 7: A million dollar crane at the transfer station was not being used2	7
Finding 8: An impaired asset value was not recognized for the Transfer Station crane2	9
Finding 9: The composting operation provided a negative return on investment3	0
Finding 10: Methane gas collection management was inefficient due to partnership roles3	4
Section Three: Management Practices3	7
Finding 11: Management practices may have adversely affected operations in some instances 3	7
Finding 12: Management entered into an undocumented verbal contract with a vendor3	9
Finding 13: We found several vendor invoices that exceeded 100 days before being paid4	0
Finding 14: Revenue recorded by Solid Waste Management in the WasteWORKS system did not reconcile with the County's financial system4	0
Finding 15: Accounts receivable collections were not recorded correctly in the County's financial system4	2
Finding 16: Solid Waste Management is not accounted for as an enterprise fund within the County CAFR.	3
Finding 17: The compaction factor may be overstated4	-6
Finding 18: Remittance documents for royalty payments from the methane electricity contractor were not on file4	
Section Four: Cash and Asset Management5	1

Finding 19: An excessive number of voided transactions were found without adequate documen	itation
and authorizing signatures	51
Finding 20: There was a lack of systematic control over capital assets.	51
Finding 21: Over/Short logs were not properly maintained	52
Finding 22: Solid Waste Management did not have documentation supporting adjustments made their point-of-sale system	
Section Five: National Survey Data	55
Finding 23: The Salt Lake Valley Solid Waste Management Facility operates more conservatively other similar facilities in counties nationwide.	
Conclusion	59
Appendix	61
Appendix A: Nationwide Waste Management Facilities Survey	62
Response to the Audit	65
Auditor's Comment on Public Works' Response to the Audit Finding 16	77
Auditor: The County should consider the feasibility of becoming the sole owner of the Solid Was Management Facility.	

Introduction

Salt Lake County serves as an equal joint venture partner with Salt Lake City in owning the Salt Lake Valley Waste Management Facility (SWM). The facility includes a landfill opened in the early 1980s and a transfer station opened in 1999. As a practical matter, Salt Lake County manages day-to-day operations. All 55 SWM employees are on the Salt Lake County payroll, including the Executive Director. Salt Lake County pays all vendors and owns all vehicles, machinery, and equipment on-site.

As a notable exception to this dominant management role, the interlocal agreement between Salt Lake City and Salt Lake County designates Salt Lake City as overseer of landfill engineering operations. As such, Salt Lake City enters into agreements with engineering companies to monitor landfill emitted gases and build gas recovery systems.

A five-member Salt Lake Valley Solid Waste Management Council approves all major landfill decisions, though any of their decisions can be vetoed by the City or County. The board consists of:

- One member designated by the Salt Lake County Mayor.
- One member designated by the Salt Lake City Mayor.
- One member designated by the Salt Lake County Council of Governments.
- One member of the Salt Lake Valley Board of Health, Director of Health, or designee.
- One member with technical expertise in the field of solid waste management.

Vehicles are weighed upon entering and sometimes upon leaving the facility to determine net waste weight for fee assessing purposes. SWM has already recorded the tare weight, or vehicle weight without anything loaded, in its WasteWORKS software management system for vehicles of frequent customers. Gross weight vehicles over 9,000 pounds are charged \$31.35 per ton. The same rate applies at the transfer station except that commercial haulers pay \$35.35 per ton. The rate structure is important because from an accounting standpoint SWM operates as an enterprise fund. In this status, SWM expects to cover its expenses from fee revenues without using taxpayer money to fund operations.

Salt Lake City, the Wasatch Front Waste and Recycling District (formerly Salt Lake County Sanitation District No. 1), and West Valley City dispose the largest tonnage of any other SWM customers. As stipulated in contract, Salt Lake County receives a \$1.50 "dividend" for each ton received, and Salt Lake City receives \$1.75. In 2014, dividends distributed to the City and County totaled \$1,253,526. Additionally, a contractual agreement with West Valley City reduces the waste disposal fee to them by \$1.75 per ton. South Salt Lake has all disposal fees waived. By contract, they dispose of all refuse for free in exchange for the right to locate and operate the transfer station in their city.

Paramount to management consideration are planning and accounting for landfill closure and post closure costs. These costs involve a final cover on the landfill as determined and regulated by the Federal Environmental Protection Agency (EPA) and monitored by the State Department of Environmental Quality. As of December 31, 2014, the estimated total closure/post closure cost was \$59,197,600, of which \$17,438,421 had already been set aside and invested in the State Public

Treasurer's Investment Fund (PTIF). The landfill is expected to close in the year 2077. Recently, the landfill received permission to increase its slope and height, thus prolonging its life.

The landfill covers approximately 560 acres, which consist of 11 modules or cells, 7 of which are open now. Before disposing of waste in a cell, EPA Subtitle D regulations require a preparation process that includes installing a plastic-type liner. SWM retains engineering firms to monitor leach ate, or contaminated water seepage, and emitted gases. Methane gas is collected in a system of underground pipes and powers electrical generators at the landfill. Electricity generated through this process is sold to Murray City.

Before opening the current landfill, the City and County each owned separate landfills facing each other at a location west of the current location. A co-ownership agreement was entered into between Salt Lake City and Salt Lake County on January 10, 1979.

The transfer station, located at 3300 South 500 West, South Salt Lake City, Utah, serves as a convenient waste drop-off point. The transfer station is an enclosed building where haulers deposit their solid waste onto the indoor cement floor. Front end loaders and excavators move garbage over the edge of a hole to semi-truck trailers below for transport to the landfill.

Audit Scope and Methodology

Our audit scope comprised an analysis of SWM's financial operations, revenues, expenses, and fund balances. We also examined management practices, including any practices that would have negatively impacted financial operations. We examined the period from 2005 through 2014 for revenue and expense trends, and other specific years as determined by our analysis of individual objectives.

Audit Objectives

To analyze Solid Waste Management's rate/fee structure and determine why the Division's financial condition has weakened over time.

Other underlying objectives were to:

- 1. Determine profitability trends for 2005 through 2014.
- 2. Examine profitability and return on investment of major capital acquisitions and projects.
- 3. Ascertain management practices in dealing with employees and achieving profitability.
- 4. Review cashier operations and compliance with internal policies for assessing fees to customers.
- 5. Determine whether balancing and depositing complies with Countywide Policy.
- 6. Examine trends in reversals, duplicate receipts, and zero-dollar sales transactions.
- 7. Review accounts receivable for unusually large balances and segregation of duties.
- 8. Examine capital and controlled assets for proper tracking and management.
- 9. Determine if payroll is accurately maintained and recorded.
- 10. Review purchases for timely payment and proper use in Solid Waste operations.

- 11. Determine compliance with consideration terms for contracts currently in place.
- 12. Survey other counties nationwide for costs and operations.

To achieve the audit objectives we interviewed SWM personnel for their view of operations, profitability, management style, history, and interpretation of operational events and financial data. We gathered financial data from the County's financial system. We analyzed and compared data and made calculations to support findings. We examined cash balancing and deposit files, and some invoices. We surveyed other counties nationwide regarding their solid waste management facilities and used this data as a benchmark against which to compare SWM operations.

This page intentionally left blank.

Section One: Trends in Solid Waste Management's Financial Position

Finding 1: The financial position of the Salt Lake Valley Solid Waste Management Facility has steadily declined in the last five years.

During our audit we examined the SWM fund balance and found a steady decline since 2009, decreasing each year by an average of 3.5%. In total, over the five year period from 2009 to 2014 the fund balance dropped from \$44,764,200 to \$37,485,281, a decline of \$7,278,920, or 16%, reaching its lowest point in 2014 of the previous 10 years. Figure 1 shows this 10 year trend.



Figure 1: Solid Waste Management's Fund Balances by Year

The SWM fund balance peaked in 2009 at \$44.8 million, but has steadily declined since then.

As a proprietary fund, SWM depends on generating enough revenue from operations to cover expenses without relying on taxpayer funds. Though part of a declining trend, a \$37.5 million fund balance in 2014 still provides a substantial reserve cushion to fund SWM operations, but at the same time presents a need for taking measures to prevent further decline.

These declining fund balances point to management deficiency in analyzing, recognizing, and addressing issues that negatively impact financial viability. If this trend continues, SWM will eventually have insufficient funds to continue operations.

The "Salt Lake Valley Solid Waste Management Facility Basic Financial Statements 2014," page 3, states the following:

"Over time, increases and decreases in net position may serve as a useful indicator of whether the financial position of the Facility is improving or deteriorating."

In analyzing financial viability, we also found a precipitously declining unrestricted cash fund balance. SWM is required to maintain this balance to at least 5% of expenses, which calculates to about \$650,000. At the end of 2014, unrestricted cash had a negative balance of \$817,000, thus violating required balance terms established by the County Council.

In its operations, SWM posts collected revenues to restricted or unrestricted cash balance categories. Unrestricted cash balances fund routine operations, including payroll, maintenance and repairs, professional fees, hauling fees and small equipment purchases.

On the other hand, management sets aside reserve balances in restricted accounts to fund key functions that over time require large cash outlays. The Solid Waste Management Council mandates some of the restricted cash fund balances.

Restricted fund balances consist of the following categories:

- Landfill closure/post closure costs
- Insurance
- Facility replacement
- Equipment replacement

- Capital improvements
- Environmental liability
- Module construction

Figure 2 shows the 10-year trend in unrestricted versus restricted fund balances. This chart does not include landfill closure/post closure balances, as we wanted to isolate these as a separate discussion point.

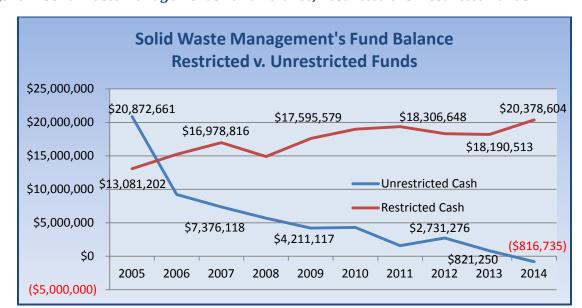


Figure 2: Solid Waste Management's Fund Balance, Restricted v. Unrestricted Funds

The unrestricted fund balance has continually declined to the point that it was insufficient to cover operational expenditures in 2014.

Figure 2 points out the increase in restricted cash over time from 2005 through 2014, and the steady decline in unrestricted cash, which became especially low in 2013 and finally fell to a negative balance in 2014. The negative \$817,000 balance required a transfer of \$1.4 million from restricted cash to reach the minimum unrestricted cash reserve balance.

Figure 2 also indicates a determined effort to maintain restricted cash fund balances, including those for equipment purchases and module construction. Module construction involves placing a liner in the 20-acre module, or cell area, and other preparations prior to allowing for waste disposal on its tipping face.

Restricted Cash Reserve Fund Balance Includes Anticipated Landfill Closure and Post Closure Costs

Landfill closure and post closure costs are among the most planned for and anticipated cash expenditures, and considered a high priority among restricted cash funds for SWM. Governmental Accounting Standards Board (GASB) Statement No. 18 (GASB No. 18) requires that landfill closure costs be estimated and an expense recognized each year, for governmental financial reporting purposes. Over time, these expenditures will accumulate, and should include the projected amount required to cover, cap, and close the landfill. At the end of 2014, the estimated landfill closure and post closure cost was estimated at \$59,197,600. The expense recognized in 2014 was \$736,168.

Landfill closure funds accumulate and earn interest in the State's Public Treasurer's Investment Fund (PTIF). The State Environmental Quality Division monitors the County's closing/post closing cost funding. Table 1 shows the 10-year trend in the closure/post closure fund balance.

Table 1: Landfill Closure/Post Closure Fund Balance in PTIF

	Landfill Closure/Post Closure Fund Balance in PTIF						
Year	Fund Balance	Change in Balance	% Change				
2005	\$11,523,916						
2006	\$24,566,723	\$13,042,806	113.18%				
2007	\$25,900,338	\$1,333,615	5.43%				
2008	\$26,758,133	\$857,795	3.31%				
2009	\$27,033,289	\$275,156	1.03%				
2010	\$27,184,590	\$151,301	0.56%				
2011	\$14,905,436	(\$12,279,155)	-45.17%				
2012	\$15,020,669	\$115,233	0.77%				
2013	\$16,769,339	\$1,748,670	11.64%				
2014	\$17,438,421	\$669,082	3.99%				

Landfill closure/post closure cost funding is subject to balance fluctuations due to policy maker decisions.

In 2011, policymakers removed \$14 million from the PTIF closure/post closure fund with equal amounts divided between Salt Lake City and County to cover general fund deficiencies in the wake of the ensuing recession. This resulted in the negative \$12.3 million balance in 2011. The difference between the \$14 million and the \$12.3 million was a contribution to the fund that year to recognize the routine closure/post closure expense, and a transfer from unrestricted cash reserves to restore the fund to its required level. Subsequently, the fund has not recovered to its pre-2010 level, and the issue of whether funding is currently adequate is not known by SWM.

Various Causes for a Slightly Deteriorating Financial Position

In analyzing declining SWM fund balances and unrestricted cash fund balances we isolated the following causes:

- Increased capital expenditures not adequately anticipated and planned for.
- Transfer of funds out of the closure/post closure account in 2011.
- Some increased operational expenditures, especially for maintenance.
- Stagnant tipping fee structures for Solid Waste Management customers.
- Changing market conditions.

Referring again to Figure 2, the increase in restricted cash and steady decrease in unrestricted cash indicates the need to reevaluate and plan for restricted cash fund balances, and the logic for maintaining them at their current funding levels. In particular, we noted that restricted cash increased \$2.2 million in 2014, while unrestricted cash decreased \$1.6 million, ultimately ending in a negative \$817,000 balance.

Increasing restricted cash balances and precipitously decreasing unrestricted cash balances could indicate one of three things: (1) reduced revenues, (2) increased operational expenses, or (3) increased

capital expenditures. We found that revenues decreased and expenses increased slightly over the last 10 years, though revenues generally exceeded expenses. This trend will be discussed later in the report. Declining SWM fund balances indicate increased and unanticipated capital expenditures.

One unanticipated capital expenditure not included in the capital asset replacement schedule was the purchase of three shredders and five conveyor systems, discussed later in this report, which cost SWM \$2.4 million. In addition, the fiscal manager noted an internal procedure implemented five years ago to capitalize \$250,000 in repair costs annually.

In addition to capital expenditures, we found increases in regular operating expenditures for vehicle and equipment repair and maintenance. These costs are shown in Figure 3.



Figure 3: Vehicle and Equipment Repair and Maintenance Costs by Year

Maintenance and repair costs have increased \$1 million between 2005 and 2014.

Overall, maintenance and repair costs increased \$1 million between 2005 and 2014, or 140%. The highest year for maintenance and repair expenses, occurred in 2012, and was due in part from modifications and repairs to the shredders purchased in 2011. Gas and oil costs, not included in Figure 3, fluctuated widely based on market price. In all, gas and oil costs increased only 23%, from \$604,000 in 2005 to \$964,624 in 2014. The year 2011 marked the highest point during this period for oil and gas prices, \$964,624.

The fee structure also contributed to a declining fund balance, especially in light of increasing expenses. From 1996 through 2009, the fee structure remained at \$22 per ton. Moreover, residents were charged only \$10 per axle. For example, a typical pickup truck would be charged \$10 per load, no matter the weight of the load. SWM personnel reported to us that some commercial haulers approached the scale house under the guise of residential customers. Competitors of these commercial haulers complained to

SWM personnel about the inequity of the system where some commercial haulers received significant and unfair price breaks.

In 2010, landfill and transfer station tipping fees increased to \$24 per ton for non-commercial haulers, and in 2011 these fees increased to \$26 per ton. In 2014, fees increased to \$31.35 per ton, and in April 2015, SWM implemented a major fee structure change whereby any vehicle under gross weight of 9,000 pounds, regardless of residential or commercial status, would be charged \$10 per axle. Any vehicle of greater weight would be charged per ton. This change eliminated the confusion and questions of integrity surrounding the residential or commercial status of haulers.

Table 2 shows the current fee structure where commercial haulers to the transfer station are charged \$4 more than municipal and special district haulers.

Table 2: Solid Waste Management's Fees for Vehicles 9,000 Pounds or Greater.

Solid Waste Management's Fees for Vehicles 9,000 Pounds or Greater					
Customer Type Landfill Fees Transfer Station Fees					
City/County	\$31.35/ton	\$31.35/ton			
Commercial	\$31.35/ton	\$35.35/ton			

Commercial haulers are charged \$4 more per ton at the Transfer Station than at the landfill.

SWM expects 2016 revenues to increase by \$1.7 million as a result of the fee increase to \$31.35 per ton. Both rates shown in Table 2 include fees for dividend payments to Salt Lake City and Salt Lake County, a Health Department Fee, and a recycling fee that reverts back to Solid Waste Management. Net of these fees, SWM receives \$26 in revenue out of the \$31.35 total charged.

These dividends and fees to other agencies total \$5.35 per ton, broken down as follows:

- \$1.85/ton Health Department
- \$1.75/ton Salt Lake City Dividend
- \$1.50/ton Salt Lake County Dividend
- \$0.25/ton Recycling

Market conditions have also negatively impacted SWM's financial operations. SWM has seen increased competition from a new private landfill in Tooele County, and two new transfer stations in the Salt Lake Valley. Increased recycling has also reduced the waste coming to SWM.

Public Works Department management expressed concern about a perceived loss of \$1.2 million in revenue. While we did not find any actual losses of this magnitude, we did find that actual revenues from landfill and transfer station charges were \$1.3 million less than the amount budgeted in 2014.

Finding 2: Revenues, expenses, and tonnage trends have varied over the last 10 years.

We conducted tests to determine trends and correlations in SWM's financial position. We retrieved financial information for 2005 to 2014 from the County's financial system. We also gathered tonnage and revenue data from SWM's financial system, WasteWORKS, from 2006 to 2014. In addition, we interviewed SWM's Fiscal Manager, to discuss points of interest and gather additional information to complete audit tests.

We examined possible correlations between revenues, fees, tonnage, and clients at SWM. We also analyzed if the opening of two new transfer stations in the area had any effect on SWM's financial performance. Table 3shows the quantitative measurement of a correlation coefficient. The correlation coefficient illustrates the statistical correlation and dependence of two sets of data. Table 3 also summarizes the measurements for each data set and an explanation.

Table 3: Summary of the Measurements for Revenue, Fees, and Tonnage Data

Negative Relationship		No Correlation	Po	ositive Relations	hip	
Strong	Moderate	Weak	No Correlation	Weak	Moderate	Strong
(1.0) to (0.8)	(0.8) to (0.5)	(0.5) to (0.1)	(0.1) to 0.1	0.1 to 0.5	0.5 to 0.8	0.8 to 1.0

Summary of the Measurements for Revenue, Fees, and Tonnage Data							
Data Set	Correlation Coefficient	Measurement	Explanation				
Correlation between Revenue and Fees	(0.245)	Weak Negative	As Fees increase revenues slightly decrease.				
Correlation between Revenue and Tonnage	0.355	Weak Positive	As tonnage increases revenues slightly increase				
Correlation between Revenue and Clients	(0.040)	No Correlation	No correlation and dependency was found.				
Correlation between Tonnage and Fees	(0.916)	Strong Negative	As Fees increase tonnage strongly decreases				
Correlation between Tonnage and Clients each year	0.377	Weak Positive	As clients increase tonnage slightly increases				

We did not find a strong correlation and/or dependency between tonnage, revenue, and fees.

The correlation between tonnage and fees was the only strong correlation of the data sets that we examined. However, the data sets shown without a strong correlation may have a different result when combined with other variables.

Our analysis of local competition showed that SWM did not lose major clients as a result of the entrance of competitors into the local market. The transfer stations opened in 2006 and 2008. The customer data

we reviewed indicated that only one large client, with average revenue greater than \$500,000, was lost in 2007.

Only two medium-sized clients, with average revenue between \$100,000 and \$500,000, were lost in 2009 and 2010. It is important to note that client information came from clients recorded in the point of sale system that pay on account (accounts receivable clients). Major clients not recorded in the WasteWORKS database as accounts receivable clients, may not have been included in our analysis. However, it was assumed that major clients would have most likely been accounts receivable customers.

Operating revenue decreased significantly between 2005 and 2007 at SWM. It is likely that revenue decreased as a result of clients, whether on account or not, using competing facilities. However, over time, revenue has not returned to the 2005 level and has stabilized to market conditions. Figure 4 illustrates the trend in operating revenue since 2005.



Figure 4: Solid Waste Management's Operating Revenue by Year

Operating revenue declined slightly from 2005 to 2006, and has remained relatively unchanged since 2006.

Finding 3: Solid Waste Management is not controlling costs effectively.

Our test work to determine trends in SWM's financial position included a review of costs. We retrieved detailed cost information from the County's financial system from 2005 to 2014. The fiscal manager was also interviewed to gather detailed information on increasing costs.

We analyzed operating expenses by dividing them by their current year total revenue. This produces a ratio that measures the percent of total revenue used to cover the expense. Figure 5 illustrates the ratio measuring total operating expenses.



Figure 5: Solid Waste Management's Operating Expense Ratio by Year

When compared with revenue, operating expenses have increased since 2008.

We separated operating expenses into three main categories: materials & supplies, other operating expenses, and personnel. We found that operating expenses have risen primarily because of materials & supplies expense. Other operating expenses decreased between 2007 and 2008. However, it has returned to a level that is slightly under the 2005 level. Personnel expense has marginally risen above the 2005 level but has mainly stayed constant since 2007. It was clear that materials & supplies expense has risen considerably since 2005 from 18% of total revenue to 33% of total revenue. Figure 6 illustrates the ratio measuring materials & supplies expense.

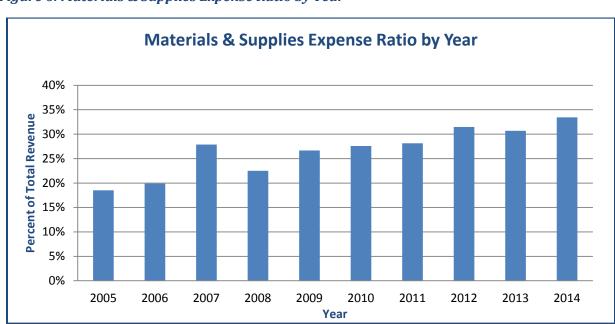


Figure 6: Materials & Supplies Expense Ratio by Year

Materials & Supplies expenses have continued to increase when compared with revenue.

This expense ratio mainly measures efficiency and can quantifiably indicate rising current costs when compared to revenue. Additional analysis was conducted on detailed expense line items under the materials & supplies expense category.

We found many line items have risen significantly including:

- Maintenance on grounds
- Maintenance on buildings
- Facility management charges
- Maintenance on machinery and equipment

- Maintenance on fleet equipment
- Vehicle replacement costs
- Equipment rentals
- Professional fees.

While interviewing with the fiscal manager it was clear that costs were not controlled. We found that Solid Waste Management did not use an internal operating budget and an internal capital projects budget. Additionally, we found no cost allocation system directly applying costs to services or jobs. Many important cost accounting practices were not being used.

Not having proper cost accounting practices increases the risk of a business entity not being able to control costs associated with operating processes. Additionally, there is an increased risk that decisions impacting costs are not based on essential financial information.

Finding 4: Solid Waste Management lost a total of \$272,000 in revenue in 2014 from providing free waste disposal services to the City of South Salt Lake.

The City of South Salt Lake receives free disposal of its municipal waste collections at both the transfer station and the landfill. South Salt Lake agreed to allow the transfer station in its city in exchange for free waste disposal. The Interlocal Agreement between Salt Lake County, Salt Lake City, and South Salt Lake City, dated June 17, 1998, Paragraphs 3A and 3B state the following:

"Disposal Fees are waived for municipal solid waste generated by South Salt Lake Residents which is collected by the CITY or by residential collection contractors pursuant to contract with the CITY ... Disposal Fees are waived for household and yard waste from family Residences within the CITY brought to the transfer station on all Saturdays except when the facility is closed."

In addition to free disposal to haulers of South Salt Lake residential waste, the transfer station is open four hours on the first and third Saturday of each month for South Salt Lake residents to dispose of their waste free of charge. To do so, residents obtain a ticket at South Salt Lake City Hall. Even though the contract creates free residential disposal every Saturday, subsequent arrangements between the parties have modified this services to two Saturdays only.

The agreement with South Salt Lake comes at a cost to Solid Waste Management. Information derived from the WasteWORKS management system attributed 7,729 tons of refuse to South Salt Lake in 2014, which translated to \$272,232 in lost revenue. This tonnage included disposal at both the landfill and transfer station.

The Saturday refuse drop-off requires three employees on-site for four hours. SWM spends about \$10,000 annually in salary and benefits for this service. Employees load the Saturday waste onto a semi-truck and drive it to the landfill immediately following the drop-off service.

We mention these forfeited fees and free services by SWM as a reference point only. Any change in terms would require agreement between the three parties to the contract.

Recommendations

We recommend that the Solid Waste Management Division:

- 1. Monitor capital acquisitions and expenditures to help prevent further erosion of the fund balance.
- 2. Determine the impact on revenues of the fee restructure in 2015 and the need for additional adjustments to increase fund balances.
- 3. Determine whether restricted fund balances are maintained at unreasonably high levels to the detriment of unrestricted fund balances.
- 4. Implement internal cost accounting practices to help control the rise in expenditures.

This page intentionally left blank.

Section Two: Return on Investment

Finding 5: The purchase and use of shredders produced a negative return on investment (ROI).

In 2011, SWM management purchased three shredders, two of which were used at the landfill and one at the transfer station. Ostensibly, the use of shredders was intended to provide greater compaction at the landfill, thus extending its life and reducing annual costs, though as a practical matter, this never happened. For a period of time, one of the landfill shredders was used on the tipping face, but currently both are used in the composting operation.

The one shredder at the transfer station now sits idle. Management stated that the shredder has not been operated in at least one year. SWM explained several problems associated with use of this shredder, including downtime to unclog trapped materials, continual need to repair shredder teeth, and slicing and damage to conveyor belts below from rebar that slipped through the shredder. Time required to produce any appreciable compaction exceeded any possible gain. One manager provided an example of working 22 hours one day in attempting to process 1,000 tons of waste, but only shredding 400 tons in this period.

Another manager initially hoped that SWM would receive \$2 million in scrap revenue annually from metal extracted by a magnet positioned over the conveyor belt. The conveyor belt transported shredded waste to the transfer station floor from a lower level room where the shredder was located. In reality, recycling companies rejected or greatly reduced their fee offered for the metal because of contamination from straggling papers, debris, or other materials. We calculated a negative return on investment for the shredders and conveyors of 65.34%, as shown in Table 4.

Table 4: Calculation of Return on Investment for Shredders, Conveyors, Trammel

Calculation of Return on Investment for Shredders, Conveyors, Trammel						
Gains	Amount	Costs	Amount			
Savings in Extended Landfill Life	\$0	Purchase Cost	\$2,390,033			
Composting Sales	625,719	Chain Conveyor and Transfer Station Remodel	176,187			
Metal Sales	8,845	Costs from Fleet	500,947			
Salvage Value	597,508	Kimball Maint Contract	487,958			
Total Gains	<mark>\$1,232,072</mark>	Total Costs	\$ <mark>3,555,125</mark>			
Total Gains		\$1,232	2,072			
Less: Total Costs 3,555,125						
Return on Investment (\$2,323,053)						
Percentage ROI						

The return on investment (ROI) is the net gain or loss divided by total investment cost.

In calculating the return on investment, we included all three shredders purchased in 2011, the two conveyor belts purchased in 2011 for the transfer station, and one of four conveyor belts purchased in 2012 for the landfill. One of these belts was used in the composting operation. We also included the trammel screen used in composting. We stated that shredder use did not create any savings in extended landfill life because of limited use and output.

We further analyzed this data by isolating the shredder and conveyors used at the transfer station only. In this case, the loss only magnifies. Reliable data was not available for us to calculate metal sales pulled by the magnet, but SWM fiscal staff attributed no more than 5% of salvage sales in 2012 only to this revenue stream. Therefore, we arrived at magnet-pulled metal sales of \$8,845 (\$176,900 X .05). Table 5 shows our calculation of a negative 83.95% return on investment for the transfer station shredder operation.

Table 5: Calculation of Return on Investment for Shredders & Conveyors at the Transfer Station 2011 to 2015

Calculation of Return on Investment for Shredders & Conveyors at the Transfer Station 2011 to 2015						
Gains	Amount	Costs	Amount			
Savings in Extended Landfill Life	\$0	Purchase Cost	\$815,073			
Salvage Value	203,768	Chain Conveyor and Transfer Station Remodel	176,187			
Metal Sales	8,845	Costs from Fleet	170,757			
		Kimball Maint Contract	162,653			
Total Gains	<mark>\$212,613</mark>	Total Costs	<mark>\$1,324,670</mark>			
Total Gains		\$212,6	513			
Less: Total Costs -1,324,670						
Return on Investment (\$1,112,057)						
Percentage ROI (83.95%)						

The return on investment (ROI) is calculated as (\$212,613-\$1,324,670)/\$1,324,670.

The chain conveyor shown in Tables 4 and 5 is separate from two other conveyors used at the transfer station and included in the purchase cost of \$815,073. The chain conveyor was part of a building modification in 2012 to move waste pushed by a front end loader over the edge of the floor to the shredder on a lower level several feet below. Two concrete barriers between the chain conveyors added as part of a building modification prevented front end loaders from falling over the edge. Also, a control booth was constructed and electronic equipment purchased to enable an employee to monitor the flow into the shredder. Other than the cost of the chain conveyor, we were unable to isolate building modification costs, but included a conservative estimate of \$10,000. The chain conveyor alone cost \$166,187.



Figure 7: Image - The Transfer Station Shredder

Currently, management has no intention to continue transfer station shredder operations. In 2015, Fleet Management personnel modified the shredder to sit on a flatbed that would then fit directly over the hole in the transfer station floor, thus allowing shredded refuse to fall directly into the truck without the need for a conveyor. Shortly after this modification, SWM management personnel changed. This change brought about a new operational focus that excluded shredder use. The shredder has never been positioned over the hole as previously envisioned.

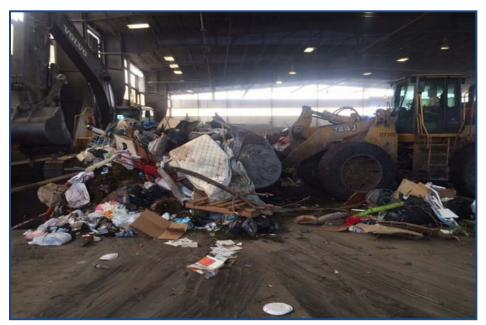
In concept, shredded waste provides added compaction. Added compaction increases the life of the landfill, thus reducing costs. Prior to purchasing the shredder, three vendors demonstrated its capabilities at reducing refuse volume to SWM management. SWM management then rented a shredder for a about a year's time to test its capabilities. Also, a University of Utah graduate student wrote a thesis based on Salt Lake Valley Solid Waste Management's intent to employ shredding techniques. In this report, the student detailed computations from experimental data to substantiate greater compaction rates from shredding use.

In the end, shredders have negatively impacted SWM finances because of their inability to produce a significant enough compost or waste product stream to justify their use. Whether from inherent design limitations or from lack of management desire or ability to see the process through to a profitable end, the transfer station shredder has not lived up to performance expectations.

Finding 6: The transfer station created a positive return on investment in 2014 compared to a negative return on investment for the landfill.

The transfer station provides a convenient waste disposal site at 3300 South and 500 West and eliminates the drive to the landfill on 6000 West and 1300 South. This convenience especially benefits the two largest transfer station customers, Salt Lake City and the Wasatch Front Waste and Recycling District, formerly Salt Lake County Sanitation District #1.





The shorter distance eliminates significant engine and tire wear and reduces fuel costs. Moreover, trucks avoid getting stuck in mud at the landfill on rainy days and flat tires from nails on the landfill dirt surface.

In our analysis we found that the transfer station produces a positive return on investment, this despite a \$1 million annual cost to a third-party semi-truck contractor to haul waste from the transfer station to the landfill. The transfer station benefits Solid Waste Management operations by better allowing it to compete within the existing market, which has increasingly seen additional facilities for depositing waste, including a new landfill in Tooele County and two additional transfer stations in the Salt Lake Valley.

To the contrary, the landfill produces a negative return due to a greater number of employees required in a more complicated and extensive operation than the transfer station. Table 6 shows the return on investment for the transfer station and landfill in 2014.

Table 6: Return on Investment for Landfill Compared to the Transfer Station in 2014

Return on Investment for Landfill Compared to the Transfer Station in 2014						
Revenue/Expense Type	Landfill	Transfer Station	TOTAL			
Operating Revenues	\$6,726,147	\$5,497,616	\$12,223,763			
Other Revenues	705,869	101,324	807,193			
TOTAL Revenues	\$7,432,016	\$5,598,940	\$13,030,956			
Employee Salaries and Benefits	\$2,592,596	\$816,228	\$3,408,824			
Expenditures & Loss on Sale	5,088,077	2,350,123	7,438,200			
Depreciation	1,103,885	240,000	1,343,886			
Indirect Costs	251,647	232,289	483,936			
TOTAL Costs	\$9,036,206	\$3,638,640	\$12,674,846			
Net Profit/Loss	(\$1,604,190)	<mark>\$1,960,300</mark>	\$356,110			
Percentage ROI	(17.75%)	53.87%				

Nearly the same tonnage accrues at the transfer station as at the landfill, resulting in closely approximating revenue figures for each.

In calculating the return on investment we subtracted costs from revenues and divided this amount by costs. Table 6 shows a negative return on investment of 17.75% for the landfill and a positive return of 53.87% for the transfer station.

Existing financial statements do not break out costs between the landfill and transfer station. We produced this data by allocating between the two locations the total Solid Waste Management costs shown in the County's financial system. In most cases, we allocated revenues and expenses based on the percentage of waste tons disposed at each facility in 2014 – 48% at the transfer station and 52% at the landfill. We allocated salaries and benefits based on detailed salary and benefit information of each employee by work location. From the salary data we determined that 24% of salaries and benefits accrued to transfer station employees compared to 76% for landfill employees.

In addition to a greater number of employees, the landfill also uses more equipment in its operations. To produce a positive return on investment for the landfill would require higher fees or a reduction in costs. Overall, Solid Waste Management revenues exceeded expenses by \$356,110, as shown in Table 6.

Finding 7: A million dollar crane at the transfer station was not being used.

The transfer station opened in 1999 as a means to divert 30% of the waste from the landfill and thus extend its life. At that time, waste was transported on rail cars to a landfill located in Carbon County. In this process, waste was pushed from the transfer station floor onto large containers that a crane then hoisted onto rail cars. This crane that straddles the rail line next to the transfer station cost \$1.6 million.



Figure 9: Image - The \$1.6 million Crane at the Transfer Station

For various reasons the rail deal fell apart by about 2007, and SWM stopped hauling refuse to Carbon County. Currently, semi-trucks haul transfer station waste 10 miles to the SWM landfill. Since 2007, the crane has sat idle at the transfer station.

Though now idle, the crane did produce a positive financial return to the transfer station in transporting waste to Carbon County and extending the life of the landfill. Table 7 below shows the return on investment for the crane.

Table 7: Return on investment calculation for the transfer station crane from 1999 through 2006

Return on Investment for the Transfer Station Crane 1999-2006							
Revenues 1999- 2006	Cost	Hauling Costs to Cost the East Carbon Total Costs County landfill					
\$43,748,30 1	\$1,615,750	\$ 28,590,146	\$30 <mark>,2</mark> 05,896	\$13,542,405			
Return on Investment = (\$43,748,301-\$30,205,896)/\$30,205,896 = 44.83%							

Revenues are shown as 38% (the portion to the transfer station) of total tipping fee revenues from 1999 through 2006.

We calculated total tipping fee revenues from 1999 through 2006, the period of time the crane was operated. Costs for hauling to Carbon County were based on payments during this same period made to the company that owned the Carbon County landfill. These costs included rail transportation charges. In total, we calculated a positive return on investment for the crane of 44.83%.

The crane could prove a slight liability to the County from personal injury and become a greater financial loss due to decreasing value as time goes by. Therefore, steps should be taken to dismantle and sell the crane for whatever value can be received. While our scope did not include market analysis, management viewed a virtually non-existent market where the crane's most ready use would be as scrap metal, garnering a sales value of about \$35,000.

Finding 8: An impaired asset value was not recognized for the Transfer Station crane.

When the hauling contract with East Carbon Development Corporation (ECDC) ended in 2007 and the crane was no longer used, an impairment loss should have been recognized by Solid Waste Management per the guidelines of GASB Statement No. 42.

According to GASB Statement No. 42, asset impairment is a significant, unexpected decline in the service utility of a capital asset. A capital asset is considered impaired if it meets the following criteria:

- 1. The magnitude of the decline in service utility is significant, and
- 2. The decline in service utility is unexpected.

When an asset will no longer be used by the government it should be measured at the lower of the asset's carrying value (book value), or its fair market value (what the asset could be sold for on the open market).

The crane is a unique piece of equipment and has been modified to suit the needs of the transfer station. This makes finding a purchaser difficult. As already stated, SWM management felt that it would most likely have to be disassembled and sold as scrap. Based upon these opinions, using the crane's book salvage value of \$161,575 as its market value is not considered a conservative number. The most conservative estimate obtained thus far from SWM management is the estimated scrap value of \$35,000.

The carrying value reported for the crane as of December 31, 2007 was \$1,115,383¹. Assuming the scrap value of \$35,000 is the price that can be obtained on the open market, a loss of \$1,080,383² should have been recognized at this point in time. Net income for every year proceeding 2007 would be understated due to the change that would have occurred in depreciation expense as shown in Table 8.

Table 8: The Effect of Crane Impairment on Earnings

	Effect of Crane Impairment on Earnings							
	2007	2008	2009	2010	2011	2012	2013	2014
	Impairment Loss		Depreciation					
Corrected	(\$1,080,383)	(\$2,132)	(\$2,132)	(\$2,132)	(\$2,132)	(\$2,132)	(\$2,132)	(\$2,132)
Original	\$0	(\$58,245)	(\$58,245)	(\$58,245)	(\$58,245)	(\$58,245)	(\$58,245)	(\$58,245)
Earnings Adjustment	(\$1,080,383)	\$56,113	\$56,113	\$56,113	\$56,113	\$56,113	\$56,113	\$56,113
						Total Adjustment		(\$687,589)

Because an impairment loss was not recognized, earnings have been overstated.

Finding 9: The composting operation provided a negative return on investment.

The composting operation began in the early 1990's as a way to divert green waste from the landfill tipping face. SWM uses green waste in two ways: (1) as an alternative cover on the landfill, and mud control (SWM diverts green waste from residential customers for this purpose), and (2) as raw material for making compost. SWM earmarks green waste from municipalities and the Wasatch Front Waste and Recycling district for this use.

Composting involves grinding and then "cooking" green waste in wind rows over a period of several months. The cooking process involves watering and periodically turning the wind rows. SWM stated that initially the market was restricted to a very narrow range of providers, mainly the Salt Lake Valley Solid Waste Management Facility. Thus, the landfill could leverage this advantage into significant gains. Today, a much larger market created by tree trimming and other businesses producing their own compost have increased competition and cut into SWM compost sales volume.

Our analysis revealed that the composting operation produced a negative return on investment in 2014. This return can be viewed in two ways: (1) gains from compost sales revenues only, or (2) gains from compost sales revenues and also fees, collected for green waste received at the landfill.

Table 9 shows the return on investment under both assumptions. The first assumption produces a negative return of (78.76%), while the second assumption produces a negative return of (12.34%). Either way, our analysis showed that the compost operation does not generate a profit.

Table 9: Return on Investment for Composting Operations in 2014

Return on Investment for Composting Operations in 2014					
Revenues	Assumption 1 Amount	Assumption 2 Amount	Costs	Amount	
Compost Sales	\$186,579	\$186,579	Personnel	\$295,366	
Green Waste Fees		\$583,328	Fuel	\$98,189	
			Maintenance	\$333,038	
			Depreciation	\$151,690	
TOTALS	\$186,579	\$769,907		\$878,283	
Gains \$186,579 – Expenses \$878,283 = (\$691,704) ROI = -78.76% (Assumption1) OR Gains \$769,907 – Expenses \$878,283 = (\$108,376) ROI = -12.34% (Assumption 2)					

Solid Waste Management would need to decide whether or not to include green waste fee revenues as a factor in calculating compost profitability.

Under the first assumption, the only positive result of net operations occurs from compost sales. The sales price is \$30 per scoop, and each scoop sold equates to about 3 cubic yards. The second assumption includes green waste fees in determining profit or loss. Management could view green waste fees as allocable to general landfill operations, or alternatively as related specifically to the composting operation since green waste provides the raw materials used in production.

Solid Waste Management Needed to sell 67,170 More Cubic Yards of Compost in 2014 Just for Compost Operations to Break-Even

In addition to ROI, break-even analysis provides a useful management tool in determining the sales level required to cover costs. This analysis states a required amount by volume sold to bring revenues equal to costs. SWM does not track quantities sold by volume, but we calculated approximately 18,658 cubic yards of compost sold in 2014, based on sales of \$186,579 divided by \$10 per cubic yard. Our analysis showed that 87,828 cubic yards should have been sold to break even in 2014. In other words, to break even, 2014 sales needed to be over five times the volume of actual sales. The break-even analysis is shown in Table 10.

Table 10: Compost Operations Break-Even Analysis

Compost Operations Break-Even Analysis					
Fixed Costs	Sales price/Cubic Yard	Variable costs			
\$878,283	\$10	\$0			
	Break-Even Analysis Calculation \$878,283/\$10-\$0 = <mark>87,828 cubic yards in</mark> sales were needed to break even.				

A variable cost per unit was not included because all costs are static over time. Production is constant and not expected to vary significantly.

Based on data in table 9, an additional 67,170 (87,828 – 18,658) cubic yards of compost needed to be sold to break even in 2014. If this sales level cannot be achieved, reducing costs or increasing sales price provides other alternative methods to break even.

Compost Fees should be Raised to \$48 per Scoop, or \$16 per Cubic Yard to Break Even

Instead of viewing the break-even point in terms of sales volume needed at the current price of \$10 per cubic yard (as shown in Table 10), we can also examine the price needed to reach the break-even point at the actual volume sold in 2014, 18,658 cubic yards. We calculated the break-even point in sales dollars by dividing \$878,283 in fixed costs (see Table 10) by the number of cubic yards sold, 18,658. This calculation produced a break-even cost of \$47 per cubic yard.

Alternatively we can add green waste fee collections, if desired, to reduce the \$47 per cubic yard cost. These revenues from tree limbs, grass clippings, and other green waste products could reasonably be added to the calculation because green waste represents raw materials used in production.

When adding green waste revenues into the equation, the break-even cost is \$16 per cubic yard. We calculated this amount by taking SWM green waste fees collected in 2014 of \$583,328, and dividing them by 18,658 cubic yards sold, to arrive at an additional \$31 that could be available to reduce compost operation costs. The \$31 would reduce the \$47 break-even cost to \$16 per cubic yard. In this case, SWM would have to charge an additional \$6 per cubic yard over the current \$10 price to break even. Thus management can view the break-even point as related to compost sales revenues only, or both compost sales revenues and green waste fee revenues.

As additional analysis, we found that compost sales lagged in the past six years over what they previously had been, a trend that indicates compost operational viability. The operation has become less viable as compost sales revenues have decreased. Figure 10 shows this decrease and the 10-year trend.

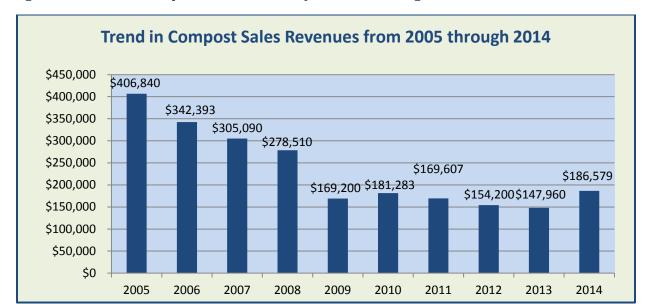


Figure 10: Trend in Compost Sales Revenues from 2005 through 2014

Compost sales revenue significantly decreased after 2008.

Figure 10, shows that compost sales revenues decreased 54% over the 10-year period from 2005 through 2014. Average sales revenues over the six-year period from 2009 through 2014 were 50% less than the average for the four-year period from 2005 through 2008. As already mentioned, management pointed to increased competition from private compost operations entering the market as a cause for decreased SWM compost sales.

In its compost product, SWM faces the challenge of contaminated green waste, a problem other producers do not face because of greater control over their input stream. A tree trimming company, for example, knows that exclusive green waste will go into its product. SWM lacks such control, as patrons may mix in a load of garbage. Thus, SWM compost may contain paper, metal, and especially pieces of glass that alarm customers because of its safety risk to children. Management stated that even though they try removing contaminants, the lack of SWM resources prevents total removal from occurring.

As another factor in lagging sales, most management personnel also pointed to the purchase of shredders in 2011 that replaced a grinder in the compost operation. Though faster, the shredders did not produce compost as finely textured as the grinder. Thus, compost may contain sizeable sticks that could make customers less willing to buy. Management stated that they plan to purchase another grinder to produce higher quality compost in the future.

Finding 10: Methane gas collection management was inefficient due to partnership roles.

In our audit work of the methane gas collection process, we found a lack of sufficient coordination between Salt Lake City and Salt Lake County to prevent losses. We also found duplicative efforts in the paying of third party contractors that monitor the gas system.

Landfill organic waste produces gases, primarily methane gas, when it decomposes. Organic waste includes food and paper. These gases seep out of the ground and into the air. Federal government regulations require that gases be monitored and controlled at certain levels. In this control process, methane gas is collected in underground pipes and transmitted to a central landfill collection point where it powers electricity producing generators. A third-party contractor produces and sells this electricity to Murray City.

Management stated that some of the underground pipes constructed on certain cells in 2005 were too small and not placed on a proper bed to provide adequate support. Moisture accumulates in the pipes. Due to inadequate size and also sagging from the lack of proper bedding, water accumulating in the pipes was not allowing gas to properly flow through. Thus, unauthorized gas levels started seeping into the atmosphere.

In 2015, contracts with two separate vendors were signed to repair the system and to reconfigure a header that would provide better flow to the central collection point. The project will cost approximately \$3 million. Management stated that some of these costs would be necessary in future upgrading regardless of the repair project. They also stated that at least some of this cost was due to inadequate pipe installation in 2005 where system needs were not adequately anticipated.

Recently, Salt Lake City entered into the following contracts for pipe reconfiguration and construction:

Contractor 1 for Modules 6 & 7 Gas Extensions, April 29, 2015	\$761,984
Contractor 2 for North Landfill Gas Header, September 28, 2015	<u>\$1,963,545</u>
Total	\$2,725,529

As a SWM co-owner, Salt Lake City is designated in contract to negotiate and administer all engineering projects. These projects include gas monitoring and construction of gas collection pipes. In this role, Salt Lake City pays the contractor. Salt Lake City then presents contractor invoices to the SWM accounts payable manager for reimbursement to them (the City) for their payment. Reimbursing Salt Lake City is inefficient and time consuming. In essence two payments are processed for one transaction.

SWM recovers a small portion of its gas monitoring costs from the contractor that generates and sells electricity. Table 11 shows payments to the contractor since 2010, the royalty revenues received from the electricity contractor, and the difference.

Table 11: Payments for Monitoring Methane Compared to Revenues from Electricity Royalties

Payments for Monitoring Methane Compared to Revenues from Electricity Royalties							
Year	Payments to Methane Electricity Generation Royalties Difference						
2010	Data not Available	\$70,760	Not Available				
2011	\$351,145	\$70,428	(\$280,717)				
2012	\$289,620	\$69,137	(\$220,483)				
2013	\$249,313	\$68,613	(\$180,700)				
2014	\$381,847	\$68,349	(\$313,498)				
2015	\$564,252	Data not yet available	Not Available				

Revenues from electricity generation would not be expected to cover expenses with the methane contractor since gas monitoring is required by law.

Salt Lake City provided us with the methane contractor payment information. Inefficiency occurs in the Solid Waste Management accounting record because it designates Salt Lake City as the payee for these methane payments. The accounting record shows other payments to Salt Lake City, including dividend payments. This lack of segregating payments by type and designation of purpose did not allow for monitoring of costs in determining their reasonableness.

Recommendations

We recommend that the Solid Waste Management Division:

- 1. Sell the shredders and conveyors as necessary to prevent further losses.
- 2. Dismantle and sell the transfer station crane.
- 3. Recognize an impairment loss due to the decline in service utility of the crane. The crane should then be depreciated based on its new adjusted value.
- 4. Increase the price of its compost to approximate the break-even level or increase the volume sold.
- 5. Improve compost quality through eliminating contaminants.
- 6. Achieve greater coordination with Salt Lake City to ensure that unnecessary losses are not incurred regarding methane gas monitoring and pipe construction.
- 7. Segregate the detail of Salt Lake City payments in the accounting record between dividends and methane gas monitoring and projects.
- 8. Eliminate duplication from paying the engineering contractor and then reimbursing Salt Lake City for these costs.

This page intentionally left blank.

Section Three: Management Practices

Finding 11: Management practices may have adversely affected operations in some instances.

Ten employees at Solid Waste Management were selected for personal interviews. Employees were asked to rank, on a scale from 1 to 10 management effectiveness at SWM, under the former Executive Director compared to a management change that occurred in August 2015. Of the 10 employees interviewed, 5 stated there was no difference in management. The other 5 employees stated that Solid Waste Management is managed better under the current configuration. The average score under the previous scheme was 5.5 while the average score with the change in August was 7.4.

The same 10 employees were asked to rate on a scale from 1 to 10, whether they thought SWM was profitable under management. Again, 5 of the 10 employees stated that there was no difference in profitability since the change in August, and the other 5 stated that profitability had increased since this change. The average score under the Executive Director was 4.9 while the average score since the change was 7.5. Figure 11 shows the ratings that each interviewed employee made about management.

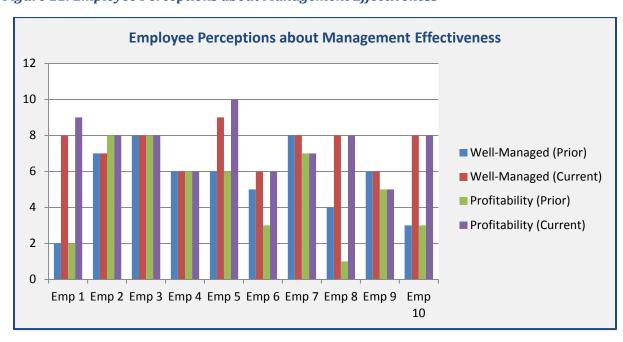


Figure 11: Employee Perceptions about Management Effectiveness

Employee perceptions of management increased or remained the same following the management change in August 2015.

Figure 12 shows the average opinion of employees interviewed regarding management practices, both before and since the management change in August 2015.

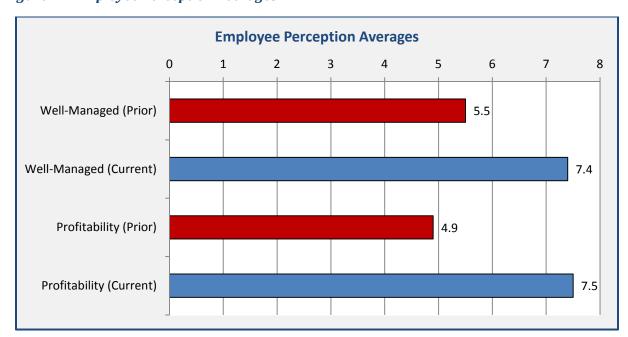


Figure 12: Employee Perception Averages

The average employee perception shows that employees perceive a better operation under current management.

Some opinions expressed during the interview process that could have negatively affected employee morale included: lack of overall communication, fear of retaliation by management, working in a hostile environment, management's use of scare tactics, management showing favoritism, constant fear for their jobs, and failure to communicate SWM's vision. However, other employees mentioned that they were treated fair and with respect, allowed to do their job, never felt intimidated, and that management was great, and the work environment was "pretty good."

The purchasing of shredders and mishandling of the compost operation were two examples mentioned as negatively affecting profitability. However, other employees we interviewed stated that the purchase of the shredders and grinders were "innovative," and "a calculated, reasonable risk" and "the Executive Director always got approval for his decisions."

The discrepancies in responses among those surveyed indicate, at the very least, management's inability to resolve conflicts and effectively communicate expectations. Management's inability to resolve conflicts and effectively communicate expectations lowers employee morale and increases the risk of inefficiency in operations.

Finding 12: Management entered into an undocumented verbal contract with a vendor.

During the course of the audit, we noted that a Solid Waste Management roll off container full of discarded automobile tires and wheel rims was taken from the County landfill and placed at a privately owned tire repair shop. County landfill employees were instructed to leave the roll-off container at the tire repair shop to be used by the shop employees. The shop employees would then remove the discarded tires from any wheel rims, put the tires back in the roll-off container, and keep the rims. County employees would then periodically take the roll-off container to the recycling center to be emptied, and return with a new roll-off container full of discarded tires to start the process over again.

When confronted about the container placed at the tire repair shop, the Executive Director stated that originally an RFP was put out, but there was not a bid placed. After not receiving a bid, the Executive Director contacted the Salt Lake County Contracts and Procurement Division regarding potential options. He stated that he was directed to find a vendor and enter into a non-exclusive, net-zero contracts. The Executive Director further stated that he approached the tire repair shop and formed an oral agreement where the landfill would deliver a roll-off container with discarded tires and rims and the tire repair shop would remove the tires and keep the rims. The Executive Director then stated that he contacted the Contracts and Procurement Division to inform them of the oral contract.

Neither the Executive Director nor any employees interviewed reported money exchanging hands. However, the vendor may have gained by selling the rims as scrap metal. The vendor also placed tires in the bin for disposal without being charged the tipping fee at the landfill.

The Contracts and Procurement Division was contacted regarding the RFP mentioned by the Executive Director. Contracts and Procurement staff was unable to locate any documentation substantiating the claim that an RFP was sent out, or that the Executive Director was instructed to form a non-exclusive, net-zero contract.

County Ordinance 3.16.050, Execution of Contracts, states:

"No department, office, advisory or policy board, or other agency of county government, nor any officer or employee thereof, shall be empowered to execute any purchase order or contract except as specifically authorized in this chapter and Chapters3.20 through 3.36. All contracts in violation of this provision are considered void, and may result in the personal obligation and liability of persons at fault for such violations."

By creating a verbal, non-exclusive, net-zero-contract without any documentation, the contract is in violation of the County Ordinance and considered void, and could have resulted in the personal obligation and liability of the Executive Director and any other persons at fault for creating the oral contract.

SWM management stated that they have discontinued the relationship with the tire shop and no longer take the roll-off container there for transport of tires with rims attached, and discarding of used tires with rims removed and tires from the proprietor's own operations.

Finding 13: We found several vendor invoices that exceeded 100 days before being paid.

During our audit work we obtained a list of 1,064 payments to vendors in 2014 related to Solid Waste Management. Together these payments totaled \$8,234,393. Of the 1,064 payments, 26 were made over 100 days after the invoice date. These 26 payments totaled \$112,625. Countywide policy does not specify a time period by which payments should be made, but untimely payments to vendors diminish goodwill for the County and could make future contracts in some cases more difficult to enter into. If payment is not made in the budget year for which the billing occurred, then a claim must be made with the Mayor's Office, and approved by the Mayor or his representative.

The two largest items within the \$112,625 were a payment for \$42,500 to a consulting group, for which the consulting group was blamed for the delay in payment, and a payment to Salt Lake City for \$24,000, for which no explanation was provided.

The biggest concern in delayed payments related to a contractor that repaired the shredders. In the most egregious case, SWM paid this vendor 644 days after the invoice date on a claim approved by the Mayor. The company had billed SWM for equipment repair. The SWM Executive Director intentionally delayed this payment because he felt there should have been a warranty on the repair work and a dispute with the vendor over the quality and amount of work that was performed.

We also observed another case with this same vendor where payment for \$9,280 was made 461 days after the invoice date. The claim letter submitted in this instance also referred to other cases, as follows:

"From September 30, 2011 through December 30, 2011 goods/services were received from [XYZ] Equipment Company in the aggregate amount of 35,759.69, of which \$15,359.09 were approved and paid on a claim letter dated June 6, 2012 by the division Executive Director."

Finding 14: Revenue recorded by Solid Waste Management in the WasteWORKS system did not reconcile with the County's financial system.

We conducted tests to determine trends in profitability which required a reconciliation of the revenue recorded in the waste management system (WasteWORKS) with the revenue recorded in the County's financial system. Reports of revenue and tonnage by material from 2006 to 2014 were retrieved from WasteWORKS.

Each material category was reviewed with the fiscal manager to determine the specific materials allocated to revenue line items in the County financial system. All revenue generating materials were allocated to three revenue line items: landfill charges, compost sales, and incoming green waste. Other non-revenue generating materials were recorded strictly to keep record of the transactions that occurred. Table 12 illustrates the reconciliation between WasteWORKS and the County's financial system.

Table 12: Solid Waste Management's Reconciliation of WasteWORKS Compared to the County's Financial System

Solid Waste Management's Reconciliation of WasteWORKS Compared to the County's Financial System									
Revenue Type	Revenue Type 2006 2007 2008 2009 2010 2011 2012 2013 2014								
Compost Sale (WasteWORKS)	316,559	268,783	256,838	169,230	181,283	169,607	154,200	147,960	186,579
Landfill Charges (WasteWORKS)	11,527,966	10,264,170	11,114,240	11,459,801	11,554,199	11,525,648	11,477,037	10,701,420	11,589,805
Incoming Green (WasteWORKS)	308,736	343,644	431,394	353,725	386,743	549,402	470,313	465,022	583,817
Compost Sale (Reported)	342,393	305,090	278,510	169,200	181,283	169,607	154,200	147,960	186,579
Landfill Charges (Reported)	11,681,910	10,231,715	11,281,787	11,631,195	11,691,663	11,413,380	11,271,321	10,385,695	11,385,507
Incoming Green (Reported)	-	-	-	-	-	547,955	477,782	465,116	583,328
Compost Sale (Difference)	(25,833)	(36,307)	(21,672)	30	-	-	-	-	-
Landfill Charges (Difference)	(153,944)	32,455	(167,547)	(171,395)	(137,464)	112,269	205,716	315,725	204,297
Incoming Green (Difference)	308,736	343,644	431,394	353,725	386,743	1,447	(7,469)	(94)	489

Reported revenue did not reconcile with data recorded in WasteWORKS.

We found that reported revenue only reconciled with the data recorded in WasteWORKS for the compost sale revenue line item from 2010 to 2014. Notably, there was a material difference in every year between 2006 and 2014 in landfill charges revenue and between 2006 and 2010 in the incoming green waste revenue.

Countywide Policy #1062, "Management of Public Funds," states in the introduction:

"Effective internal controls provide reasonable assurance that daily transactions are executed in accordance with applicable statutes, ordinances and policies and errors, irregularities, and omissions are effectively minimized or detected."

Failure to implement internal controls that reconcile County financial records with internal financial records can increase the likelihood of not minimizing or detecting errors, irregularities, and omissions. In

addition, when reported revenue does not reconcile with internal financial records, there is an increased risk that incorrect financial information could negatively affect stakeholder decisions.

Finding 15: Accounts receivable collections were not recorded correctly in the County's financial system.

In an interview with SWM's Fiscal Manager, it was determined that account receivable collections were not accounted for properly in the County's financial system. After reviewing revenue entries for 2013 and 2014, we found that revenue was not recognized when realized or realizable, and earned. Furthermore, we found that the proper accrual method of accounting was not being used. The incorrect entries recognized revenue once payment was made, then accounts receivable was backed-into at the beginning of each month, and reversed out at the end of each month.

GASB Statement No. 62, "Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements," paragraph No. 23 under, "Revenue Recognition for Exchange Transactions," states:

"Revenue from exchange transactions generally should be recognized when an exchange, in the ordinary course of operations, is effected unless the circumstances are such that the collection of the exchange price is not reasonably assured. Accordingly, revenues from exchange transactions should generally be accounted for at the time a transaction is completed, with appropriate provision for uncollectible accounts. In the absence of the circumstances referred to above or other specific guidance, such as in paragraphs 282–349, the installment method is not acceptable."

Additional guidance is also provided by the Financial Accounting Standards Board (FASB) by way of recommendation from GASB.

GASB Statement No. 34, "Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments," paragraph No. 94 under, "Measurement focus and basis of accounting," states:

"For enterprise funds, governments may elect to apply all FASB Statements and Interpretations issued after November 30, 1989, except for those that conflict with or contradict GASB pronouncements, based on the provisions of paragraph 7 of Statement 20, as amended by this Statement. Governments are encouraged to use the same application of FASB pronouncements for all enterprise funds."

FASB Accounting Standards Codification (ASC) Topic No. 605, "Revenue Recognition," Subtopic No. 10, "Overall," Section No. 25, "Recognition," paragraphs 1 and 3 state:

Section 25-1:

"The recognition of revenue and gains of an entity during a period involves consideration of the following two factors, with sometimes one and sometimes the other being the more important consideration:

- a. **Being realized or realizable.** Revenue and gains generally are not recognized until realized or realizable. Paragraph 83(a) of FASB Concepts Statement No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises*, states that revenue and gains are realized when products (goods or services), merchandise, or other assets are exchanged for cash or claims to cash. That paragraph states that revenue and gains are realizable when related assets received or held are readily convertible to known amounts of cash or claims to cash.
- b. **Being earned.** Paragraph 83(b) of FASB Concepts Statement No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises*, states that revenue is not recognized until earned. That paragraph states that an entity's revenue-earning activities involve delivering or producing goods, rendering services, or other activities that constitute its ongoing major or central operations, and revenues are considered to have been earned when the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues. That paragraph states that gains commonly result from transactions and other events that involve no earning process, and for recognizing gains, being earned is generally less significant than being realized or realizable."

Section 25-3:

"Revenue should ordinarily be accounted for at the time a transaction is completed, with appropriate provision for uncollectible accounts. Paragraph 605-10-25-1 (a) states that revenue and gains generally are not recognized until being realized or realizable and until earned. Accordingly, unless the circumstances are such that the collection of the sale price is not reasonably assured, the installment method of recognizing revenue is not acceptable."

The effect of using an incorrect accounting method could increase the risk of understating revenues in prior periods, potentially overstating revenues in the current period, and understating accounts receivables in the prior period. Furthermore, when reported revenue does not accurately reflect the current period, there is an increased risk that incorrect financial information could negatively affect stakeholder decisions.

Finding 16: Solid Waste Management is not accounted for as an enterprise fund within the County CAFR.

In reviewing the manner in which SWM is reported within the County CAFR, we noted that beginning with the 2010 CAFR, SWM was no longer reported as an enterprise fund. In the 2009 CAFR, the County reported net assets of \$22,382,101 in the SWM enterprise fund. In 2010, the County CAFR explained,

"The County's equity interest in the Salt Lake Valley Solid Waste Management Facility is now reported as part of the County's governmental activities on the statement of net assets. The joint venture equity is reported as a governmental activity because it is now an investment of the General Fund." We requested additional clarification from Mayors Financial Administration on the reasons for the change in entity financial reporting.

Mayors Financial Administration explained that the decision was made using GASB Statement No. 14 (GASB No. 14) and GASB Statement No. 61 (GASB No. 61). They explained that it was decided that SWM met criteria indicating it was not a component unit of Salt Lake County. In essence, reporting SWM as an enterprise fund within the County CAFR was not required by GASB financial reporting guidelines because it was not considered a fund of the County.

Upon review of GASB 14 and 61, we determined that SWM should be considered a component unit primarily because it does meet the financial accountability criteria. The criterion is met specifically because Solid Waste Management is fiscally dependent on Salt Lake County. Below is the criterion explaining Financial Accountability.

GASB Statement No. 14, "The Financial Reporting Entity," paragraph No. 21 under, "Financial Accountability," states:

"Accountability flows from the notion that individuals are obliged to account for their acts, including the acts of the officials they **appoint** to operate governmental agencies. Thus, elected officials are accountable for an organization if they appoint a voting majority of the organization's governing board. Sometimes, however, appointments are not substantive; other governments (usually at a lower level) may have oversight responsibility for those officials. This Statement uses the term *financial accountability*, rather than *accountability*, to describe the kind of relationship warranting the inclusion of a legally separate organization in the reporting entity of another government. The following circumstances set forth a primary government's financial accountability for a legally separate organization.

- a. The primary government is financially accountable if it appoints a voting majority of the organization's governing body *and* (1) it is able to **impose its will** on that organization *or* (2) there is a potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the primary government (paragraphs 27–33).
- b. The primary government may be financially accountable if an organization is fiscally dependent (paragraphs 16–18) on the primary government regardless of whether the organization has (1) a separately elected governing board, (2) a governing board appointed by a higher level of government, or (3) a jointly appointed board (paragraphs 34–38)."

Paragraph No. 21(b), sets the fiscally dependent criteria which is further explained in the following paragraphs:

GASB Statement No. 14, "The Financial Reporting Entity," paragraph No. 16 under, "Determining fiscal independence or dependence," states:

"A special-purpose government is fiscally independent if it has the ability to complete certain essential fiscal events without substantive approval by a primary government. A special-purpose government is fiscally independent if it has the authority to do all three of the following:

- a. Determine its budget without another government's having the authority to approve and modify that budget.
- b. Levy taxes or set rates or charges without approval by another government.
- c. Issue bonded debt without approval by another government.

A special-purpose government that is not fiscally independent is **fiscally dependent** on the primary government that holds one or more of those powers. A special-purpose government may be fiscally dependent on another state or local government regardless of whether it receives *financial* assistance from that state or local government; fiscal dependency does not necessarily imply that a **financial benefit** or **burden** relationship exists."

We determined that SWM does not meet all three criteria explained in paragraph No. 16. We also found that the Salt Lake County Mayor and Salt Lake City Mayor both have power to review, ratify, modify, and veto any action described by the Solid Waste Management Council, who is the appointed oversight body of Solid Waste Management. Therefore, making it fiscally dependent on both Salt Lake County and Salt Lake City. This dependence is outlined in the 2009 Interlocal Cooperation Agreement between Salt Lake County and Salt Lake City.

2009 Interlocal Cooperation Agreement, "Interlocal Cooperation Agreement Solid Waste Management Salt Lake County and Salt Lake City," paragraph No. 13, "Review of Council Actions," under the section titled, "Agreement," states:

"All actions which are not specifically delegated to the COUNCIL by this Agreement shall be the responsibility of the CITY and the COUNTY. The COUNCIL shall describe its planned actions by way of minutes of all meetings, taken in writing or electronically, and submit the description to the business offices of the CITY's Mayor and the COUNTY's Mayor. The CITY's Mayor and the COUNTY's Mayor shall thereafter each have power to review, ratify, modify, or veto any action described by the COUNCIL. The CITY's Mayor and COUNTY's Mayor or their designees shall promptly notify the COUNCIL, in writing or electronically, of the actions taken by them. Actions shall take effect only upon ratification by the CITY's and COUNTY's mayors."

Additionally, in all practicality, SWM would not be able to complete the essential fiscal events mentioned above without substantive approval from the County. SWM is included in the normal Salt Lake County budgetary process in which it is treated as an enterprise fund of the County.

When accounting standards are not followed correctly there is an increased risk that incorrect financial information could adversely affect stakeholder decisions.

Finding 17: The compaction factor may be overstated.

Density is the weight of material in a cubic yard of airspace and it relies exclusively on how efficiently the material is compacted. Greater compaction yields higher density, resulting in a longer life for the landfill, more revenues, and lower annual post closure expenses.

Potential Revenue per Cubic Yard

Density has a direct impact on the revenues of the landfill.

(Charge per ton X density lbs per cubic yard X 1 ton / 2,000 lbs) = Potential revenue per cubic yard.

Table 13 demonstrates the relationship between density and greater revenues per cubic yard.

Table 13: Comparison of Potential Revenues by Density

	Comparison of Potential Revenues by Density								
Charge per Ton	Description	Density per cubic yard (factor used)	Potential Revenue per Cubic Yard						
\$31.35	Over 9,000 pounds	1,160 (.58)	\$18.18						
\$29.60	Municipal discounts	1,160 (.58)	\$17.17						
\$16.00	Green waste	1,160 (.58)	\$9.28						
\$5.00	Concrete or soil	1,160 (.58)	\$2.90						
\$4.44	If less than 9,000 pounds with 2 axles*	1,160 (.58)	\$2.58						
\$2.22	If less than 9,000 pounds with 1 axle*	1,160 (.58)	\$1.29						
\$31.35	Over 9,000 pounds	1,500 (.75)	\$23.51						
\$29.60	Municipal discounts	1,500 (.75)	\$22.20						
\$16.00	Green waste	1,500 (.75)	\$12.00						
\$5.00	Concrete or soil	1,500 (.75)	\$3.75						
\$4.44	If less than 9,000 pounds with 2 axles*	1,500 (.75)	\$3.33						
\$2.22	If less than 9,000 pounds with 1 axle*	1,500 (.75)	\$1.67						
\$31.35	Over 9,000 pounds	1,800 (.90)	\$28.22						
\$29.60	Municipal discounts	1,800 (.90)	\$26.64						
\$16.00	Green waste	1,800 (.90)	\$14.40						
\$5.00	Concrete or soil	1,800 (.90)	\$4.50						
\$4.44	If less than 9,000 pounds with 2 axles*	1,800 (.90)	\$4.00						
\$2.22	If less than 9,000 pounds with 1 axle*	1,800 (.90)	\$2.00						

Revenue potential per cubic yard. *\$10 per axle: 1 axle (9,000/2,000 = 4.5 tons. \$10 / 4.5 = \$2.22); 2 axles (\$20 / 4.5 = \$4.44.).

Post Closure Expense

The current post closure expense calculation relies on a compaction factor. The formula is: Tip Face Tons for the year X the compaction factor = Fill Capacity Used (Cubic Yards).

In 2012, the fiscal manager stated in a note on his expense calculation spreadsheet that shredders were placed into service and the compaction factor increased from 0.58 to 0.75. This resulted in a reduction of post closure expenses of \$460,151 for the years 2012 through 2014. The comparison in SWM expenses at 0.58 and 0.75 compaction rates is shown in Table 14.

Table 14: Comparison Between 0.58 and 0.75 Compaction Rates by Year

Comparison Between 0.58 and 0.75 Compaction Rates by Year							
Year	Expense @ .58 Compaction Rate	Expense @ .75 Compaction Rate	Difference	Cumulative			
2012	\$1,016,480	\$857,740	-\$158,740	-\$158,740			
2013	\$927,597	\$773,088	-\$154,509	-\$313,249			
2014	\$882,356	\$735,454	-\$146,902	-\$460,151			
Total	\$2,826,433	\$2,366,282	-\$460,151				
Average	\$942,144	\$788,761	-\$153,384				

The difference between charging a 0.58 and 0.75 compaction factor resulted in a cumulative negative effect.

The formula to calculate annual post closure costs does not use actual measured airspace volume. It uses a pre-determined factor multiplied by the tip face tons received at the landfill.

As demonstrated in Table 15, density remains constant even as tip face tons changes.

Table 15: Density Comparison Based on Compaction Factor

	Density Comparison Based on Compaction Factor								
Year (Factor)	Tip Face Tons	Lbs (Tons X 2,000)	Fill Capacity Used Cubic Yard	Density (Pounds/Cubic Yard)					
2012 (.58)	425,317	850,634,000	733,305	1,160					
2013 (.58)	400,764	801,528,000	690,972	1,160					
2014 (.58)	369,469	738,938,000	637,016	1,160					
2015 (.58)	370,000	740,000,000	637,931	1,160					
2012 (.75)	425,317	850,634,000	567,089	1,500					
2013 (.75)	400,764	801,528,000	534,352	1,500					
2014 (.75)	369,469	738,938,000	492,625	1,500					
2015 (.75)	370,000	740,000,000	493,333	1,500					

Density remains constant without measured airspace volume.

Industry literature cites that 1,800 lbs. per cubic yard is a good density, which would be a 0.90 compaction factor.

According to an article on the Waste360.com site, "Pressure and Profitability, increasing compaction can help a landfill bring in more money." http://waste360.com/Landfill_Management/landfill-compaction-profit-201007 describes the method used to measure density:

- 1. Conduct two surveys to calculate the airspace used between the survey dates.
- 2. Take the total scale weight of waste disposed during that period and divide by the airspace used during that period to obtain the weight of waste per cubic yard.

"Surveys should be conducted quarterly at facilities handling more than 1,000 tons per day and semi-annually or annually for sites that take in less than 500 tons per day. ... Landfills should strive for a density of at least 1,200 lbs/cubic yard. Some are able to achieve 1,800 lbs/cubic yard."

Finding 18: Remittance documents for royalty payments from the methane electricity contractor were not on file.

As already stated, a third party contractor generates electricity from methane gas collected in the landfill and sells it to Murray City Power. The electricity is transmitted to Murray City over Rocky Mountain Power lines from generators on-site at the landfill. Currently, Solid Waste Management receives a royalty of 5% to 30% of revenues, depending on the rate sold per kilowatt hour, and also 25% of the tax credit amount that the contractor receives for generating electricity from the methane gas. The contractor pays its royalty annually.

We wanted to review any remittance document from the contractor that accompanied their payment to ensure that they calculated it correctly according to contract terms. However, the documentation could not be found, although SWM management stated their confidence that it was included with other deposit documentation. Remittances cannot be properly audited when supporting documentation is not retained.

Recommendations

We recommend that the Solid Waste Management Division:

- 1. Resolve management conflicts, reinforce division goals and vision, and communicate employee expectations to improve profitability and increase fund balances.
- 2. Reconcile revenue recorded in WasteWORKS with revenue in the County financial system.
- 3. Look into integrating database information between WasteWORKS and the County financial system for the purpose of automating accounting entries.
- 4. Use the accrual method of accounting, ordinarily accounting for revenue at the time a transaction is completed, with appropriate provision for uncollectible accounts after recognizing revenue has been realized or realizable and earned.
- 5. Discuss with Mayor's Financial Administration the proper reporting requirements for the entity.
- 6. Explore conducting quarterly landfill surveys to determine actual airspace used.

- 7. Modify the GASB 18 spreadsheet to use results from airspace surveys for the annual post closure cost calculation.
- 8. Maintain remittance documents on file for royalty payment from contractors, including the contractor that generates electricity from methane gas.

This page intentionally left blank.

Section Four: Cash and Asset Management

Finding 19: An excessive number of voided transactions were found without adequate documentation and authorizing signatures.

The current process for reviewing voided transactions does not provide the internal controls necessary to prevent cash theft. Currently, cashiers write their names on voided receipts and provide an explanation why the void occurred. The receipt is included in the daily deposit packet that is reviewed by the facility's bookkeeper. The bookkeeper then reviews a daily transaction report and initials any voids listed on that report. Those are traced back to the receipts provided by the cashiers.

The transaction report that is generated by the SWM's point-of-sale system, WasteWORKS, does not include the dollar amount of the voided transactions. This amount is only listed on the original receipt. Not listing the voided amount on the transaction report creates an opportunity for employees to conceal cash theft. For example, an employee could void a transaction, throw away the original receipt, and pocket the cash. The only information that would be known without verifying an additional report is that a void occurred and the employee does not have a corresponding receipt. The fact that a discrepancy occurred is known but not the amount of the discrepancy. We were assured by a representative of WasteWORKS that the software used by the landfill could be quickly and easily modified to suit this need.

During our audit we examined 455 individual cash register balance sheets. Of these, 303 (66%) contained at least one voided transaction. In addition, we found a large variance in the number of voided transactions occurring from one cashier to another.

Countywide Policy #1062, "Management of Public Funds," Sections 3.7.2 and 3.7.3 state:

"All copies will be marked "VOID," including the customer copy, if available. The cashier initiating the voided transaction will document, on the front of the voided receipt, the cause of the voided transaction and its resolution. ... A supervisor who was not involved with the transaction will review and sign one copy of the voided receipt, along with the cashier who initiated the void. All voided receipts will be attached to the daily cash balance sheet for audit purposes."

Finding 20: There was a lack of systematic control over capital assets.

A list of all capital assets assigned to Solid Waste Management was obtained. Of the 142 capital assets listed, a total of 102 (72%) were reviewed. Although all capital assets were eventually found, it required multiple trips to the SWM facility with multiple County employees working together to locate some of

the assets. Numerous capital assets were labeled with different identification numbers from various tracking methods, causing confusion and requiring separate asset listings to locate the assets and confirm that they were on-site.

Countywide Policy #1125, "Safeguarding Property/Assets," Section 2.2.3 states that Property Managers are responsible for:

"Maintain[ing] records as to current physical location of all fixed assets and controlled assets within the organization's operational and/or physical custody."

Finding 21: Over/Short logs were not properly maintained.

We reviewed a sample of 100 daily balance sheets during our audit of cash handling procedures at SWM. The daily deposits out of that sample contained 63 overages or shortages. Of the 63 overages and shortages identified, 23 (37%) did not have an over/short log. Figure 15 shows the percent of overages and shortages not logged on an MPF Form 11 by a cashier.

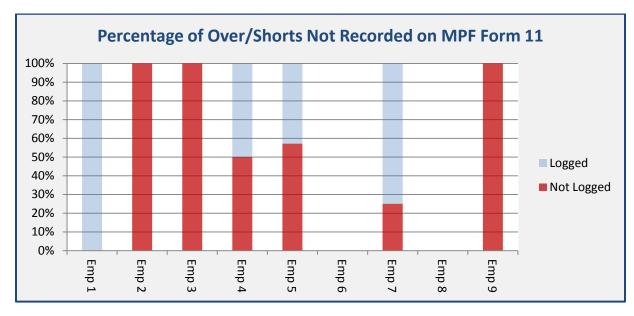


Figure 13: Percentage of Over/Shorts not recorded on MPF Form 11

Some employees failed to log their overages and shortages more than others, but we were unable to isolate the cause.

Countywide Policy #1062, "Management of Public Funds," Section 3.8.2 states:

"Change funds should be counted, restored to the established imprest balance, and any daily shortages or overages recognized and recorded on MPF Form 3A, Cash Balance Sheet, and on MPF Form 11, Cash Over/Short Log. These

forms shall be retained by the County Agency in accordance with County records retention guidelines."

Finding 22: Solid Waste Management did not have documentation supporting adjustments made in their point-of-sale system.

We conducted a test to examine transactions with negative adjustments in the Solid Waste Management point-of-sale system during 2014. We isolated 481 transactions that were adjusted down with a discount. We reviewed a sample of 48 of those transactions to determine if any supporting documentation was included with deposit documentation explaining the reasons for the discounts. Eleven out of the 48 transactions (or 23%) did not have any documentation explaining the reason for the adjustment. In addition, SWM fiscal employees could not provide any additional documentation for the discounted transactions. Transaction discounts for 2014 at SWM totaled (\$137,532.23).

Countywide Policy #1062, "Management of Public Funds," states in the introduction:

"Effective internal controls provide reasonable assurance that daily transactions are executed in accordance with applicable statutes, ordinances and policies and errors, irregularities, and omissions are effectively minimized or detected."

Without proper documentation of the reasons for discounts given, it would be impossible for management at SWM to determine whether or not those discounts were appropriate.

Recommendations

We recommend that the Solid Waste Management Division:

- 1. Update their capital asset management with a single numbering system to properly identify all assets at the SWM facility.
- 2. Record all daily shortages and overages on the MPF Form 11, Cash Over/Short Log, in accordance with Countywide policy.
- 3. Ensure that all voided transaction receipts are clearly marked VOID and include an explanation for the void. All voided transactions should be reviewed by a supervisor, and void receipts should be signed by the supervisor who reviewed the transaction.
- 4. Review discounts given to customers by cashiers daily to determine whether or not all discounts given are appropriate.

This page intentionally left blank.

Section Five: National Survey Data

Finding 23: The Salt Lake Valley Solid Waste Management Facility operates more conservatively than other similar facilities in counties nationwide.

As part of our audit, we surveyed other counties throughout the country that operated landfills or solid waste operations. The survey provided a benchmark against which to evaluate SWM performance. We realized that various underlying factors went into the data reported by other entities and that strict comparability may not be possible, but certain metrics, including waste tonnage, revenues and expenses can provide basic indicators that allow fundamental observations.

In our survey we found that many counties do not operate or have closed their landfills. In some cases, private waste management companies have taken over these operations, or cities within these counties operate their own landfills. Table 16 shows counties we contacted and whether they operated a landfill. Counties on the right side of this table both operated landfills and responded to our survey. Bernalillo, New Mexico responded to our survey but only operated a transfer station and not a landfill. Therefore, we did not include them in our analysis.

Table 16: Counties in our National Survey of Waste Management Facilities

Counties in our National Survey of Waste Management Facilities								
				Entities that Responde	d to our Qu	estionnaire		
County Name Landfill?		County Name	Landfill?	County Name	Landfill?	Transfer Stations		
Contra Costa, CA	No	Travis, TX	No	King, WA	Yes	8		
Maricopa, AZ	No	Shelby, TN	No	Orange, CA	Yes	0		
Pima, AZ	No	Westchester, NY	Yes	Portland(Metro), OR	Yes	2		
San Diego, CA	No	Wake, NC	Yes	San Bernardino , CA	Yes	9		
Clark, NV	No	Cobb, GA	Yes	Fairfax, VA	Yes	1		
Tarrant, TX	No	Middlesex, MA	No	Hennepin, MN	Yes	1		
Ventura, CA	No	Oklahoma, OK	No	Pinellas, FL	Yes	0		
Bernalillo, NM	No	Denver, CO	No	Orange, FL	Yes	2		
Jefferson, KY	Yes			Salt Lake, UT	Yes	1		

Ten counties answered our questionnaire, but Bernalillo County, New Mexico, was not included in survey results because they did not operate a landfill.

In considering counties to survey we looked for areas where populations exceeded 500,000. Among entities that responded to our questionnaire, Orange County had the largest population, 3 million, and Portland (Metro, Multnomah County) had the smallest, 777,000. Salt Lake County's population is 1.1 million.

Solid waste facilities commonly use tonnage as a performance measurement metric. Tonnage trends from year to year provide a basic indicator of overall activity and expected revenue levels. All entities, except for King County, Washington, reported weighing vehicles both when they arrived and when they left their facilities. Recording weight at both points provides the net waste disposed of for billing purposes and excludes the vehicle weight. King County stated that they weighed vehicles at the entry point only.

Salt Lake County typically weighs the vehicle at the entry point only, though the software management system already includes vehicle weight for most customers. Vehicles are weighed again upon leaving the facility for weights not already recorded in the system. One interesting anomaly to our data set came from Bernalillo County, New Mexico, which reported measuring waste collection at their transfer station in cubic yards and not in tons. Figure 16 shows the tons of waste disposed at facilities that responded to our questionnaire.

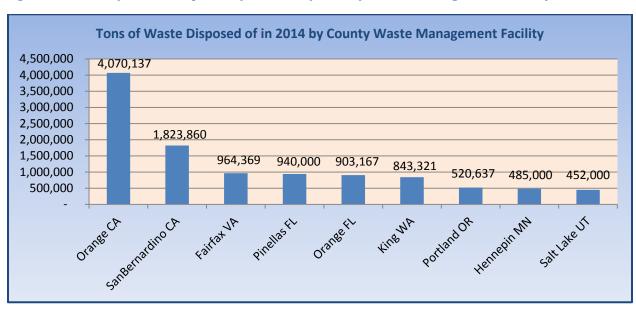


Figure 14: Tons of Waste Disposed of in 2014 by County Waste Management Facility

The three entities that reported tonnage in the 900,000 range also had populations comparable to Salt Lake County's population.

Various factors contribute to landfill tonnage, including population and the number of competing facilities within the county. Orange County far outpaces other counties in the survey, partly due to their status as the largest county in the survey. As shown in the table, our Salt Lake Valley Solid Waste Management Facility reported the lowest waste disposal tonnage. Within the County, SWM completes with the TransJordan Landfill that services southern end communities, a factor that limits SWM tonnage disposal rates.

The rate charged per ton provides a key benchmark indicator against which to compare the direction of other facilities. Figure 17 shows respondent's rates charged per ton to customers.

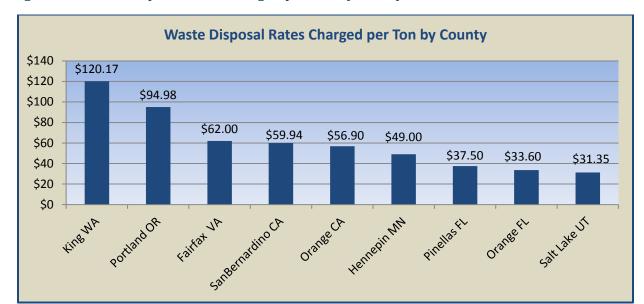


Figure 15: Waste Disposal Rates Charged per Ton by County

Salt Lake County is most comparable to the Florida counties in rates charged per ton.

As shown in Figure 6, King County, Washington's rate of \$120.17 per ton far outpaces other counties surveyed. The plurality of counties set their rates in the \$50 to \$60 range. The Salt Lake Valley Waste Management Facility charged the lowest rate at \$31.35 per ton.

Some counties charged different rates based on varying factors. For example, despite its extraordinarily high rate, King County charged only \$19.43 per ton for loads less than 320 pounds, and San Bernardino County charged \$13.99 per tons for loads under 300 pounds. At the transfer station only, Salt Lake County charged a higher rate of \$35.35 per ton for commercial haulers.

Annual revenues collected also provide a key performance indicator, though revenue alone must be equated with other factors to provide more equitable comparisons. Nevertheless, annual revenues alone do provide some ranking as to size of operations. Figure 18 below shows revenues in 2014 of entities surveyed.

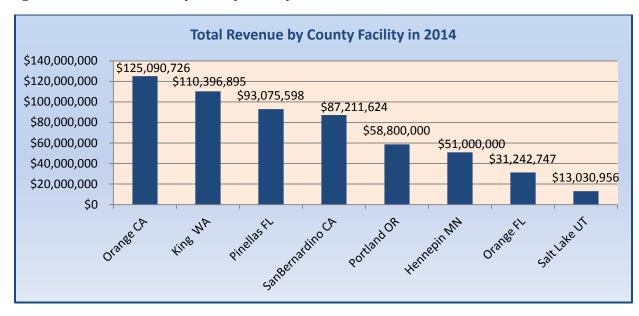


Figure 16: Total Revenue by County Facility in 2014

The Salt Lake Valley Solid Waste Management Facility posted the lowest revenue among comparable counties surveyed.

A more equitable revenue comparison equates revenue with tons collected. Figure 19 shows revenue collected per ton.

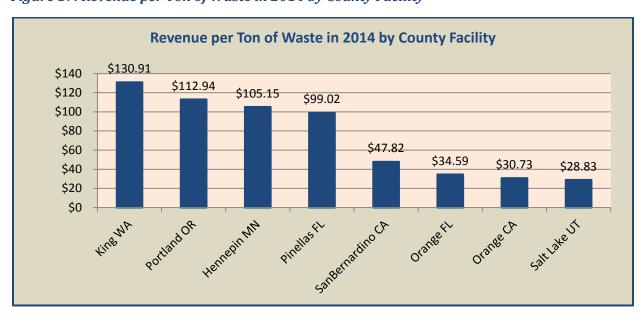


Figure 17: Revenue per Ton of Waste in 2014 by County Facility

Four of the counties surveyed had revenues of \$99 or higher per ton of waste, and the other four were half or more than that amount.

SWM's revenues were 58% lower than the next lowest county, Orange County, Florida, and revenue per ton was the lowest at \$28.83. Not surprisingly, with its high rate charged per ton, King County, Washington also posts the highest revenue per ton. Fairfax County, Virginia did not respond to this question, and therefore was not included in Figures 7 and 8.

The above analysis shows that Salt Lake County could consider charging more than its current \$31.35 per ton rate. Certainly, other regional economic data, including predominant wage rates, factor into the rate per ton. Overall, though, data indicates a less robust demand for fees from the public at SWM than other facilities nationwide. Reluctance to demand higher fees could indicate political sensitivity to the public in keeping fees as low as possible and to a conservative population where prudence, simplicity of operation, and low costs are espoused.

On the other hand, as management seeks to improve its financial position, Salt Lake's low rate per ton and revenues per ton could be used to persuade decision makers and the public that rates can reasonably be increased to fall more in line with national trends. While SWM still remains in a fairly comfortable financial position, a higher rate could work to improve declining fund balances. See Appendix A for complete detail of individual survey results.

Conclusion

The Salt Lake Valley Solid Waste Management Facility generally maintains a financial position where assets exceed liabilities to create a positive fund balance, and revenues generally exceed expenditures to create a small profit. Alarming factors in its financial position, though, are a continual decline in fund balance since 2009 and a steep decline in unrestricted cash, which is used in regular operations. Increased operational and capital expenditures, a changing market with new sets of competitors and alternative uses for waste, a lagging economy, and conflicts in organizational vision among different levels of management have contributed to these declines. Management should reevaluate its fee structure, re-examine its restricted cash fund balances, and establish a management structure with congruent vision, goals, and operational direction.

This page intentionally left blank.

Appendix

Appendix A: Nationwide Waste Management Facilities Survey

No.	Question
1.	How many separate Landfill sites does your county own for dumping waste?
2.	How many waste transfer stations does your county operate?
3.	If your county has a transfer station, where is the waste ultimately transported, and how is it transported (i.e. truck, rail cars)?
4.	How many burn centers does your county operate for burning waste?
5.	Does your solid waste operation function as an enterprise fund or a general fund?
6.	Aside from landfills, transfer stations, and burn centers, what other types of waste facilities does your county operate?
7.	How many tons of refuse were deposited at your facilities in 2014, or the most recent year for which data is available?
8.	What were revenues for your solid waste management operation in 2014, or the most recent year for which data is available?
9.	What were expenses for your sold waste management operation in 2014, or the most recent year for which data is available?
10.	What was your profit or loss in 2014, or the most recent year for which data is available?
11.	What is the fee schedule for dumping waste at your facilities? (for example, \$32/ton)
11a.	Different rate for tonnage above a certain threshold.
12.	How do fees charged to private citizens differ from those charged to commercial businesses?
13.	Do you weigh vehicles at both the entry point to the landfill and the exit point to determine a net
	tonnage? Or do you weigh only at the entry point?
14.	Do you have a separate waste management board to direct the solid waste operation?
15.	Aside from Landfills owned by your county, how many other Landfills are there in you county?
16.	Do you enter into contracts with municipalities or cities within your county for their sanitation trucks to dump waste at your facilities?

Survey Responses

County	Q1.	Q2.	Q3.	Q4.	Q5.
Bernalillo County, NM	0	1	Truck to Landfill	0	Enterprise
King Couny, WA	1	8	Truck to Landfill	0	Enterprise
Orange County, CA	3	0	N/A	0	Enterprise
Portland(Metro), OR	0	2	Truck to Landfill	0	Enterprise
San Bernardino	5	9	Truck to Landfill		Enterprise
County, CA					
Fairfax County, VA	0	1	Truck to waste-to-energy facility	1	Enterprise
Hennepin County, MN	0	1	One mass burn facility, one RDF facility and	1	Enterprise
			several landfills when needed.		
Pinellas County, FL	1	0	Truck to waste-to-energy facility or the same site	1	Enterprise
Orange County, FL	1	2	Truck to Landfill	0	Enterprise
Salt Lake County, UT	1	1	Truck to Landfill	0	Enterprise

Survey Responses (Cont.)

County	Q6.	Q7.	Q8.	Q9.	Q10.
Bernalillo County, NM	None	\$29,335	\$5,158,471	\$4,380,874	\$109,447
King Couny, WA	Drop boxes, HHW and Recycling services	\$843,321	\$110,396,895	\$100,744,238	\$9,652,657
Orange County, CA	4 HHW Centers	\$4,070,137	\$125,090,726	\$94,133,332	\$30,957,394
Portland(Metro), OR	2 HHW Centers and a latex paint recycling center	\$520,637	\$58,800,000	\$55,700,000	\$3,100,000
San Bernardino County, CA	None	\$1,823,860	\$87,211,624	\$72,303,553	\$14,908,072
Fairfax County, VA	Refuse Collection facility	\$964,369	Not Available	Not Available	Not Available
Hennepin County, MN	Two HHW/Recycling Facilities	\$485,000	\$51,000,000	\$41,800,000	\$9,200,000
Pinellas County, FL	Yard waste services and HHW	\$940,000	\$93,075,598	\$74,772,000	\$20,000,000
Orange County, FL	Composting, Waste Tire Cell, HHW, materials recovery facility	\$903,167	\$31,242,747	\$14,382,660	We do not operate on a profit or loss basis.
Salt Lake County, UT	None	\$452,000	\$13,030,956	\$12,674,846	\$356,110

County	Q11.	Q11a.	Q12.	Q13.	Q14.	Q15.	Q16.
Bernalillo County, NM	\$4 per Cu. Yd.	None	\$10 per Cu. Yd.	Entry and Exit only	No	2	No
King County, WA	\$19.43	\$120.17	\$120.17	Entry only	Advisory only	0	Yes
Orange County, CA	\$56.90		\$32.90	Both	Yes	0	Yes
Portland(Metro), OR	\$94.98		\$94.98	Both	No	0	No
San Bernardino County, CA	\$13.39	\$59.94	\$39.38	Entry and Exit only	No	0	Yes
Fairfax County, VA	\$62.00		\$48.00	Both	No	0	Yes
Hennepin County, MN	\$49.00		\$49.00	Entry and Exit only	No	0	Yes
Pinellas County, FL	\$37.50		\$37.50	Both	Advisory only	0	No
Orange County, FL	\$33.60		Not available	Both	No	0	No
Salt Lake County, UT	\$31.35		\$35.35	Entry only	Yes	1	Yes

This page intentionally left blank.

Resp	onse	to	the	Audit
	<i>-</i>			

This page intentionally left blank.



Ben McAdams Salt Lake County Mayor

PUBLIC WORKS DEPARTMENT

Russ WallPublic Works Department
Director

Scott Tingley, CIA, CGAP Salt Lake County Auditor 2001 S State Street N2-600 Salt Lake City, UT 84190

December 30, 2015

Mr. Scott Tingley,

In November of 2015 the Salt Lake County Audit team led by Larry Decker completed a performance audit of the Salt Lake Valley Solid Waste Management Facility. In this audit there were several concerns and findings addressed by Mr. Decker and his team. Attached please find Public Works Department and Salt Lake Valley Solid Waste Management Facility's (SLVSWM) response. Included in the response are 2 attachments regarding financial reporting for joint ventures. These attachments are GASB Codification Section J50 and GASB Codification Section 2100.

Public Works and SLVSWM appreciate Salt Lake County's Internal Audit Division completing this performance audit and the perspective that they brought to the facility. Public Works and SLVSWM will make every effort to incorporate the recommendations and the responses into daily practice at the landfill. If there are any questions regarding the response to the audit please feel free to contact Jared Steffey at 385-468-7056 or Russ Wall at 385-468-7055. Public Works and SLVSWM look forward to continued cooperation with Salt Lake County Auditor in the future.

Thank your

Russ Wall

Director - Public Works

Cun Wall

Response to Performance Audit

Division of Solid Waste Management

Section One

Trends in Solid Waste Management Financial Position

Finding 1: The financial position of the Salt Lake Valley Solid Waste Management Facility has steadily declined in the last five years.

Finding 2: Revenues, Expenses, and Tonnage trends varied over the last 10 years.

Finding 3: Solid Waste Management is not Controlling Costs.

Finding 4: Solid Waste Management lost \$272,000 in revenue in 2014 from providing free waste disposal services to South Salt Lake.

Recommendations

- 1. Monitor capital acquisitions and expenditures to help prevent further erosion of the fund balance
- 2. Determine the impact on revenues of the fee restructure in 2015 and the need for additional adjustments to increase fund balances.
- 3. Determine whether restricted fund balances are maintained at unreasonably high levels to the detriment of unrestricted fund balances
- 4. Implement internal cost accounting practices to help control the rise in expenditures

Response

1.

- a. In order to help monitor capital expenses and fund balances Public Works will work with Mayor's Finance to create separate accounts for each fund balance. This will allow management to monitor the individual fund balance and to make immediate and long term decisions about the health of that fund. Individual fund balance goals will be created in accordance with GAAP, organizational long term needs, and laws and regulations. The fund balance will be monitored against the goals and adjusted as needed.
- b. Materials and Supplies Expense Ratio increased from 18% in 2005 to 33% in 2015. However, if you normalize revenue (adjusting for the increase fee charge) then the increase is even greater. It is clear that Salt Lake Valley Solid Waste Management was not monitoring budgets and expenses.

Further, with a decline in tonnage, management should have adjusted the budget to reflect the decrease. Without having internal program budgets and holding managers accountable for those budget the expenses were not maintained at a reasonable level. In 2016 Public Works and Salt Lake Valley Solid Waste Management reduced the operating budget by over \$1MM. Public Works will continue to work with Salt Lake Valley SWM to reduce material and supplies expenses to a reasonable level to meet landfill operational needs.

- 2. The recommendation states that there was a fee restructure done in 2015. Public Works Management disagrees with this wording. There was no fee restructure done, but rather an enforcement of existing policy and a definition for commercial vs residential. With that being stated SWM has adjusted the 2016 budget to reflect the impact on revenues and will continue to monitor revenue budget vs realized. If the revenue does not materialize as projected then further cuts to expenses will be necessary. Public Works and SWM partners feel strongly that there should not be a fee increase at this time.
- 3. As stated in response 1a. separate accounts will be set up for each restricted fund balance category. Goals will be set for the fund balances in accordance with GAAP, organizational long term needs, and laws and regulations. The fund balances will be monitored and adjustments will be made to ensure that the fund balance will meet long term needs but is not unreasonably high thus tying up unrestricted cash.
- 4. Currently there is not a cost accounting system at SWM. Public Works will work with SWM to implement PeopleSoft Project Costing. As of today individuals record payroll expenses to where they were budgeted rather than the activity that they are working on. Public Works is working with SWM and County Information Systems to make sure that the time keeping system, Time Force II, will record the payroll hours to the cost center for which the employee is working. Cost centers will be set up in Project Costing including administration. On a monthly basis administration will be allocated by direct hours to the individual cost centers. Keeping track of all revenues and expenses by the cost center will allow Public Works and SWM to evaluate which centers are profitable and to set price points for compost, tipping face, green waste, etc. It is expected that the Project Costing will be implemented in 2016.

Note: While SWM did write off \$272,000 of revenue for services provided to South Salt Lake and its residents, it would not be considered a loss. The contractual arrangement with South Salt Lake mandates that the City and their citizens are allowed to dispose of their waste at the Transfer Station for no cost.

Section Two
Return on Investment

- Finding 5: The purchase and use of shredders produced a negative return on investment.
- Finding 6: The Transfer Station created a positive return on investment in 2014 compared to a negative return on investment for the Landfill.
- Finding 7: A million dollar crane at the transfer station was not being used.
- Finding 8: An impaired asset value was not recognized for the Transfer Station Crane.
- Finding 9: The Composting Operation provided a negative return on Investment.
- Finding 10: Methane gas collection management was inefficient due to partnership roles.

Recommendations

- 1. Sell the shredders and conveyors as necessary to prevent further losses.
- 2. Dismantle and sell the transfer station crane.
- 3. Recognize an impairment loss due to the decline in service utility of the crane. The crane should then be depreciated based on its new adjusted value.
- 4. Increase the price of its compost to approximate the break-even level or increase the volume sold.
- 5. Improve the quality through eliminating contaminants
- 6. Achieve greater coordination with Salt Lake City to ensure that unnecessary losses are not incurred regarding methane gas monitoring and pipe construction.
- 7. Segregate the detail of Salt Lake City payments in the accounting record between dividends and methane gas monitoring and projects.
- 8. Eliminate duplication from paying the engineering contractor and then reimbursing Salt Lake City for these costs.

Response

- Public Works agrees that the shredders produced a negative ROI. Data was
 manipulated to show a more favorable position and information that should have
 been available to make a decision was not provided accurately. Public Works and
 SWM will work with County Purchasing to determine if selling the shredders and
 conveyors is in the best interest of the Landfill. If a determination is made that it is
 best then SWM and Purchasing will sell the shredders and conveyors.
- 2. Public Works, SWM and County Purchasing will pursue selling the Transfer Station crane.
- 3. An impairment loss will be recognized and a new depreciation schedule will be created. Public Works will work with Mayor's Finance Capital Assets to make sure that this is done correctly.
- 4. SWM will track costs appropriately for composting and green waste using PeopleSoft Project Costing. After a year of tracking the costs SWM will look at the

- revenue vs expenses to determine what price point should be set for compost sales and incoming green waste.
- 5. SWM is currently exploring ways to reduce contaminants in the compost and to improve the quality of the compost. They are looking for ways to bring in fresh water to reduce the salinity content of the compost. In 2016 SWM will order a high speed grinder that when used in coordination with the shredders will decrease the contaminants and increase the quality of the compost.
- 6. SWM will work closely with Salt Lake City and with external engineering to ensure that all necessary precautions and best practices are followed to extend the life of the methane gas pipes.
- 7. In PeopleSoft Project Costing a Project will be set up for Methane Gas and Activities will be set up for dividend payments, new construction, maintenance, monitoring, etc. This will allow SWM to monitor and report on costs for any activity.
- 8. Public Works will coordinate with SWM, Salt Lake City, and Mayor's Finance to explore alternatives to the duplication of payments.

Note: According to the audit the Transfer Station produced a positive return on investment. However, Public Works and SWM disagree with this conclusion. If the Transfer Station were taken independently from the Landfill then it would produce a positive return on investment. However, the tonnage from the Transfer Station needs to be taken to the Landfill for processing. Therefore a portion of the Landfill administrative cost and refuge processing costs should be added to the landfill expenses. In 2014 the tonnage that was processed from the Transfer Station was 193,731 tons of the total 369,469 tons that was processed at the Landfill. That represents 52% of the total tonnage processed at the Landfill. When those administrative and processing costs are allocated from the Landfill to the Transfer Station then the Transfer Station is no longer producing a positive return on investment.

Section Three Management Practices

- Finding 11: Management practices may have adversely affected operations in some instances.
- Finding 12: Management entered into an undocumented verbal contract with a vendor.
- Finding 13: Several invoices exceeded 100 days before being paid.
- Finding 14: Revenue recorded by Solid Waste Management in waste management system did not reconcile with reported revenue in the county financial system.
- Finding 15: Accounts receivable collections were recorded incorrectly in the County financial system.
- Finding 16: SWM should be accounted for as an enterprise fund on the County CAFR.
- Finding 17: The Compaction Factor May be Overstated.

Finding 18: Remittance Documents for Royalty Payments from the Methane Electricity Contractor were not on File.

Recommendations

- 1. Resolve management conflicts, reinforce division goals and vision, and communicate employee expectations to improve profitability and increase fund balances.
- 2. Reconcile revenue recorded in WasteWORKS with the revenue in the county financial system PeopleSoft.
- 3. Look into integrating database information between WasteWORKS and the county financial system PeopleSoft for the purpose of automating accounting entries.
- 4. Use the accrual method of accounting ordinarily accounting for revenue at the time a transaction is completed, with appropriate provision for uncollectible accounts after recognizing revenue has been realized or realizable and earned.
- 5. Discuss with Mayor's Financial Administration the proper reporting requirements for the entity.
- 6. Explore conducting quarterly landfill surveys to determine actual airspace used.
- 7. Modify GASB 18 spreadsheet to use the results from the airspace surveys for the annual postclosure cost calculation.
- 8. Management should examine and modify compaction practices to achieve maximum density.
- 9. Maintain remittance documents on file for royalty payment from contractors, including the contractor that generates electricity from methane gas.

Response

- 1. Public Works agrees that management practices have affected performance and is in the process of dealing with management issues. In addition to the actions that are already underway, Public Works and SWM will work with the Landfill Council to set goals for the landfill in 2016. These goals will then be used to develop program goals. The program goals will tie into each employee's Performance Development Plan (PDP). The PDPs will be tailored to each employee so that they can develop in their career at Salt Lake County but will also demonstrate how the individual goals tie into the overall success of the landfill. Management will then evaluate employees based on their individual performance, the program performance, and the landfill performance. Supervisors will be trained on the evaluation process so that the criteria applied across employees will be consistent. Supervisors will be expected to complete the PDP process at least quarterly per County policy. Managers will be expected to meet with their program personnel at least monthly to evaluate the performance of the program. The Landfill Executive Committee will meet weekly to disseminate information, discuss issues, evaluate performance and set future direction. The minutes from those meetings as well as any resulting decisions will be sent to all landfill employees.
- 2. In September 2015, Public Works, SWM Fiscal Manager and Mayors Finance met together to discuss how accounts receivable and revenues were being recorded at

the landfill. It was decided at that time that the Landfill would start recording accounts receivable and revenue in accordance with GAAP. Revenue will be recorded monthly based on the sales at the landfill and accounts receivable will be recorded monthly based on the total outstanding A/R. Accounts receivable will be reconciled against the WasteWORKS aging report to ensure that it is accurate. Revenue will be reconciled against WasteWORKS monthly to verify accuracy. Any discrepancies will be investigated and resolved. Any payment on credit accounts will be recorded as a debit to cash and a credit to A/R. Any new Accounts receivable will be recorded as a credit to revenue and a debit to A/R. Write-offs will be recorded as a debit to revenue and a credit to A/R.

- 3. Public Works and SWM will be working with Carolina Software (WasteWORKS vendor) and Mayor's Finance in 2016 to automate the entries from WasteWORKS into PeopleSoft.
- 4. As mentioned above, revenue will be recorded on a monthly basis with a corresponding debit to either cash or accounts receivable. Write-offs will be recorded as a debit to revenue and a credit to accounts receivable.
- 5. Public Works Fiscal Administrator sent this finding to Mayor's Finance who coordinated with the County's external auditors, Squire and Company. After careful review of GASB Codification Sections J50 and 2100 it was concluded that the Landfill is being recorded correctly on the County's financial statements as a joint venture. The sections mentioned above are attached as reference for Salt Lake County Internal Auditors. Further discussion and clarification will be provided as needed.
- 6. Public Works and SWM will explore doing airspace surveys on a regular basis to more accurately report GASB 18. It is the feeling that annual surveys would be sufficient and should be conducted each January to close out the prior year.
- 7. If it is determined that airspace surveys are needed and feasible then the GASB 18 spreadsheet will be modified as needed.
- 8. Public Works and SWM will look at industry best practices for compaction and will implement those practices as is feasible and needed.
- 9. SWM is in the process of putting an independent gauge on the methane gas lines. This gauge will be monitored by SWM and will be compared against the reports that the contractor submits to the Landfill. Contract PX2175 Paragraph 9.3 states "Lessee shall meter Landfill Gas at both the Delivery Point and at the Customer and make monthly reports to Lessor." SWM will hold the Lessee accountable for the monthly reports. All monthly reports will be reviewed by Public Works, SWM, Attorney and the Landfill Council. All documentation regarding the payment will be maintained and the payment will be verified against the monthly reports and the independent information maintained by the Landfill.

Section Four Cash and Asset Management

- Finding 19: An excessive number of voided transactions were found without adequate documentation and authorizing signatures.
- Finding 20: There was a lack of systematic control over capital assets.
- Finding 21: Over/Short logs were not properly maintained.
- Finding 22: Solid Waste Management did not have documentation supporting adjustments made in their point-of-sale system.
- Finding 23: Some purchasing card receipts were not on file as required in Countywide Policy.

Recommendations

- 1. Use an asset inventory system that ties together all numbering systems of different County agencies.
- 2. Record all daily shortages and overages on the MPF Form 11, Cash Over/Short Log.
- 3. Request WasteWORKS to modify their software to provide an amount voided for each void recorded on the daily transaction report.
- 4. Ensure that all voids are documented as to cause and include necessary authorizing approval and signatures, including from supervisors.
- 5. Attach all purchasing card receipts or invoices to related bank statements.

Response

- Public Works and SWM will look at the different decisions and evaluate whether or not multiple systems are needed. It is the feeling of Public Works that recording all the information in the County system and maintaining only one source is in the best interest of the Landfill. If it is deemed necessary to maintain multiple systems then SWM will set up a tracking system to ensure accuracy between the multiple systems.
- All daily shortages and overages will be recorded on MPF Form 11, Cash Over/Short Log as required by County policy. Training will be done regularly with the Scale House Operators to cover County policy. Periodic audits/reviews will be conducted by the Landfill Accountant to monitor accuracy and ensure compliance with County policy.
- 3. Public Works and SWM will work with Carolina Software to modify the Daily Transaction Report by adding the type of transaction and the amount of the transaction. The report will be reviewed daily by the Landfill Accountant
- 4. As stated above the Daily Transaction Report will be reviewed daily by the Landfill Accountant. All voided transactions will be reviewed for proper documentation. If documentation is not available then a note will be provided to the transaction stating why documentation is not available and why the transaction was voided. After the review of documentation the Landfill Accountant will sign off on the Daily Transaction Report. Variances between Scale House Operators in the number of voided tickets will be investigated and resolved. Training will be provided to the

- Scale House Operators regarding the proper way to void a ticket and the necessary documentation. Training will then be provided on at least an annual basis.
- 5. Invoices and receipts will be attached to all expense transactions, including purchasing card transactions. Every attempt will be made to obtain an invoice or a receipt. If it is not possible to obtain an invoice or receipt then documentation will be attached to the expense outlining what the expense was for, what efforts were made to get the invoice or receipt, and why an invoice or receipt could not be obtained. The documentation will then be reviewed by the Fiscal Manager and Division Director who will both sign off on the purchase.

Section Five National Survey Data

Finding 23: The Salt Lake Valley Solid Waste Management Facility operates more conservatively than other similar facilities in counties nationwide.

Response

Public Works and SWM concur that the Salt Lake Valley Solid Waste Management Facility operates more conservatively than other similar facilities nationwide. Due to the conservative nature of the state and the political environment in which the Landfill operates it is necessary to maintain this conservative approach. SWM and the Landfill Council do not want to raise fees on customers until every other approach has been explored.

This page intentionally left blank.

Auditor's Comment on Public Works' Response to the Audit Finding 16

Auditor: The County should consider the feasibility of becoming the sole owner of the Solid Waste Management Facility.

In its response to our recommendation on proper classification of the Solid Waste Management (SWM) Facility, Public Works management stated that they discussed the issue with Mayor's Financial Administration and consulted with the accounting firm that audits the County's financial statements. Based on these discussions, "it was concluded that the Landfill is being recorded correctly on the County's financial statements as a joint venture." [See "Audit Finding 16: SWM should be accounted for as an enterprise fund on the County CAFR" and "Response to Performance Audit."] At issue was whether SWM should appear in the Consolidated Annual Financial Report (CAFR) as an investment in joint venture, as it currently does, or as an enterprise fund.

In addition, given the County's degree of influence and control over the Solid Waste Management Facility, we would recommend that the County Mayor and Council should pursue outright control, management, and ownership of SWM through acquisition and assumption of Salt Lake City's 50% ownership interest. Such outright ownership would allow for CAFR classification as an enterprise fund.

On January 6, 2016, the County Auditor and audit team members met with key players to discuss proper SWM classification in the CAFR. Also at this meeting were the County Chief Financial Officer, the Department of Public Works Fiscal Administrator, other staff members from Mayor's Financial Administration, and by phone two accounting firm partners assigned to the County's financial statement audit.

In our conversation, the lead partner stated that the status "investment in joint ventures" correctly classifies SWM within the CAFR. He further stated that SWM is accounted for as an enterprise fund and that separate audited SWM financial statements do, in fact, reflect this status.

The partner reasoned that the joint financial interest between Salt Lake City and Salt Lake County and the joint sharing of debt created joint venture status, as outlined in Government Accounting Standards Board Statement No. 16 (GASB 16). He stated further that even if an outside entity were contracted with to manage SWM that joint venture status would remain in effect.

Our office pointed out that despite this shared interest, the County sets, manages, and accounts for the SWM budget, and includes all SWM managers and employees in its payroll. Moreover, as already discussed within our report, the "dividend" paid to the city and County might be viewed more correctly as an expense since it is not based on earnings or profit but on waste tonnage brought to the facility multiplied by a pre-established rate.

Discussion also centered around the Salt Lake City Mayor's ability to veto management decisions and the authority and administrative weight of the five-member Salt Lake Valley Waste Management Council, which includes a designee by the Salt Lake City Mayor. In essence, our office believes that the County Council sets and approves the SWM budget with marginal input or response from the City or the Waste Management Council.

The County's outright ownership and management of SWM would provide for a better and more transparent CAFR depiction than is currently made and would streamline operations from the coordination efforts now required between two partners.

In 2014, to report the CAFR reported a single line item "Investment in Joint Ventures" of \$19.3 million, in addition to financial statement notes. This amount does not reflect the essence of the Solid Waste Management Facility or the County's significant role and financial investment in its operation. We determined based on the discussion with the County's external auditors, that the County's joint venture in SWM with Salt Lake City is reported accurately and correctly, in accordance with all governmental accounting standards.

However, we also determined that the County has assumed the role of part owner and the role of a quasi-independent service provider for the joint venture in SWM. In our opinion, this arrangement does accurately reflect the burden of assuming all of the operational risks associated with managing, directing, and operating SWM that the County bears. As sole owner, the County would be able to report SWM assets, liabilities, revenues, and expenses in a detailed manner. The public would therefore have a clearer picture of the County's investment in SWM.

Subsequent to our meeting with the County's external audit firm, we spoke with the Department of Public Works Fiscal Administrator about how oversight and governance by the Solid Waste Management Council over operations at SWM could be improved. He suggested that a more formal review and approval process of SWM's annual budget by the board would help. He noted that typically, the board takes a very passive role when SWM's budget is prepared each year. In our opinion, having a more formal review and approval process of SWM's annual budget by the Solid Waste Management Council in a public meeting would make the board a more active participant and improve accountability and governance for SWM operations.

Revised Recommendations

- 1. We recommend that the County Mayor and Council consider the feasibility of becoming the sole owner of the Solid Waste Management Facility.
- 2. We recommend that the Solid Waste Management Council take a more active governance role over Solid Waste Management's operations and establish a more formal process of reviewing and approving Solid Waste Management's annual budget in a public meeting.