

OFFICE OF THE CITY AUDITOR

AUDIT OF THE MCCOMMAS BLUFF LANDFILL OPERATIONS MANAGED BY THE CITY OF DALLAS SANITATION DEPARTMENT



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May 26, 2006

Memorandum



CITY OF DALLAS

May 26, 2006

Honorable Mayor and Members of the City Council
City of Dallas

We have performed an audit of landfill operations administered by the Department of Sanitation Services. Our audit covered the period of October 1, 2002, through September 30, 2004. The audit was conducted under the authority of Chapter IX, Section 3 of the Dallas City Charter and according to the annual audit plan.

We determined that present landfill fees are assessed at the correct rate and cash payments are properly accounted for by staff. However, our audit showed the McCommas Bluff Landfill tipping fee is less than any of the 14 surrounding landfills surveyed, which was comprised of six municipal and eight commercial landfills. The City could enhance revenue by approximately \$1.13M if the landfill fee was increased to recover the \$1.25 per ton environmental fee required by the State of Texas.

Our analysis did not show any direct correlation between a fee increase and a long-term reduction in use of the landfill. While a fee increase has some immediate impact on usage, the revenue impact does not seem to be broad-based, permanent, or significant. Our observation indicates that multiple factors such as robustness of the local economy, costs of fuel to operate trucks, and market competition have more sustained impact on revenue than a single event such as increasing fees.

We appreciate the cooperation of City staff during our examination.

Paul T. Garner

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c: Mary K. Suhm, City Manager

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INTRODUCTION

Authorization

We conducted an audit of the McCommas Bluff Landfill operations managed by the City of Dallas Sanitation Department. We performed the audit under the authority of Chapter IX, Section 3 of the Dallas City Charter, and in accordance with the Annual Audit Plan approved by the City Council.

Scope and Methodology

Our audit covered October 2002 through September 2004, although we examined certain events and transactions occurring before and after that period. The audit was conducted in accordance with generally accepted government auditing standards. To develop an understanding of landfill operations, we reviewed applicable federal and state laws and regulations, City administrative directives, and department business processes. We included such tests of records and review of program guidelines and procedures as we considered necessary in the circumstances.

We also obtained Fiscal Year 2001 (FY 01) through Fiscal Year 2005 (FY 05) tonnage and revenue information provided by the Sanitation Department. However, we used Fiscal Year 2002 (FY 02) as the basis for our analysis in this report because it was the first fiscal year in which the City of Dallas used a fixed fee structure. Further, we assumed that all landfills would accept one ton of waste material.

Our audit objectives were to determine whether:

- Landfill fees are assessed at the correct rate,
- Cash payments for landfill fees are properly accounted for, and
- Landfill fees are comparable with fees charged by surrounding landfills.

Overall Conclusion

As a result of our inquiries, analysis, and tests performed, we conclude that present landfill fees are assessed at the correct rate and cash payments are properly accounted for by staff. However, our audit showed the McCommas Bluff Landfill tipping fee is less than any of the 14 surrounding landfills, which are comprised of six municipal and eight commercial landfills.

Our analysis did not show any direct correlation between a fee increase and a long-term reduction in use of the landfill. While a fee increase has some immediate impact on usage, the revenue impact does not seem to be broad-based, permanent, or significant. Our observation indicates that multiple factors such as robustness of the local economy, costs of fuel to operate trucks, and market competition have more sustained impact on revenue than a single event such as increasing fees. Additionally, the City as well as other municipal landfills, does not charge customers for the \$1.25 per ton State imposed environmental fee. However, the City could increase revenue by \$1.13M if this policy was changed.

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Background

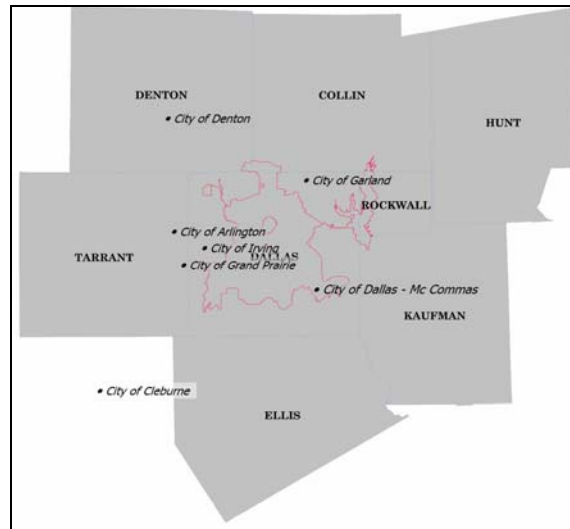
The City of Dallas Sanitation Department operates the McCommas Bluff Landfill (Landfill) as the City's repository for non-hazardous waste. The McCommas Bluff Landfill is located near the junction of I-45 and I-20 in southeast Dallas. This location allows waste haulers to approach the landfill from a number of directions. Additionally, rail service to the landfill is possible but is not presently contracted for by the City. The Sanitation Department provided the following cash and commercial credit revenue information for the past four fiscal years.

Sanitation Services				
City Auditors' Review of Private Disposal Fees				
Data Collection - FY 01-02 thru FY 04-05				
<i>Private Disposal Fees / Revenue Collected - By Fiscal Year</i>				
Description	FY 2001-02 <i>(Actual)</i>	FY 2002-03 <i>(Actual)</i>	FY 2003-04 <i>(Actual)</i>	FY 2004-05 <i>(13th Prelim #4)</i>
Private Disp. Fees - Non-Tax <i>(McCommas Bluff Landfill)</i>	\$10,436,112	\$14,298,041	\$16,026,890	\$16,034,909
Private Disp. Fees - Taxable <i>(Bachman Transfer Station)</i>	\$107,390	\$100,075	\$103,031	\$110,788
Total - Rev's Collected	\$10,543,502	\$14,398,116	\$16,129,921	\$16,145,697

Source: Department of Sanitation Services

The City's McCommas Bluff Landfill facility provides service to 498 commercial waste haulers and numerous cash customers and averages daily cash-related revenue of approximately \$12,213, or an average annual cash revenue of \$3.7 million. These waste haulers have access to landfill facilities throughout the Dallas/Fort Worth metropolitan region. Important costs to waste haulers include: 1) landfill tipping fee, 2) driver fee, 3) distance to landfill, 4) drive time to landfill, 5) cost of fuel, and 6) amount of fuel used to arrive at landfill. The combination of these costs, as well as others deemed appropriate by a hauler, determine the final cost in the selection of a landfill to which a hauler will take waste.

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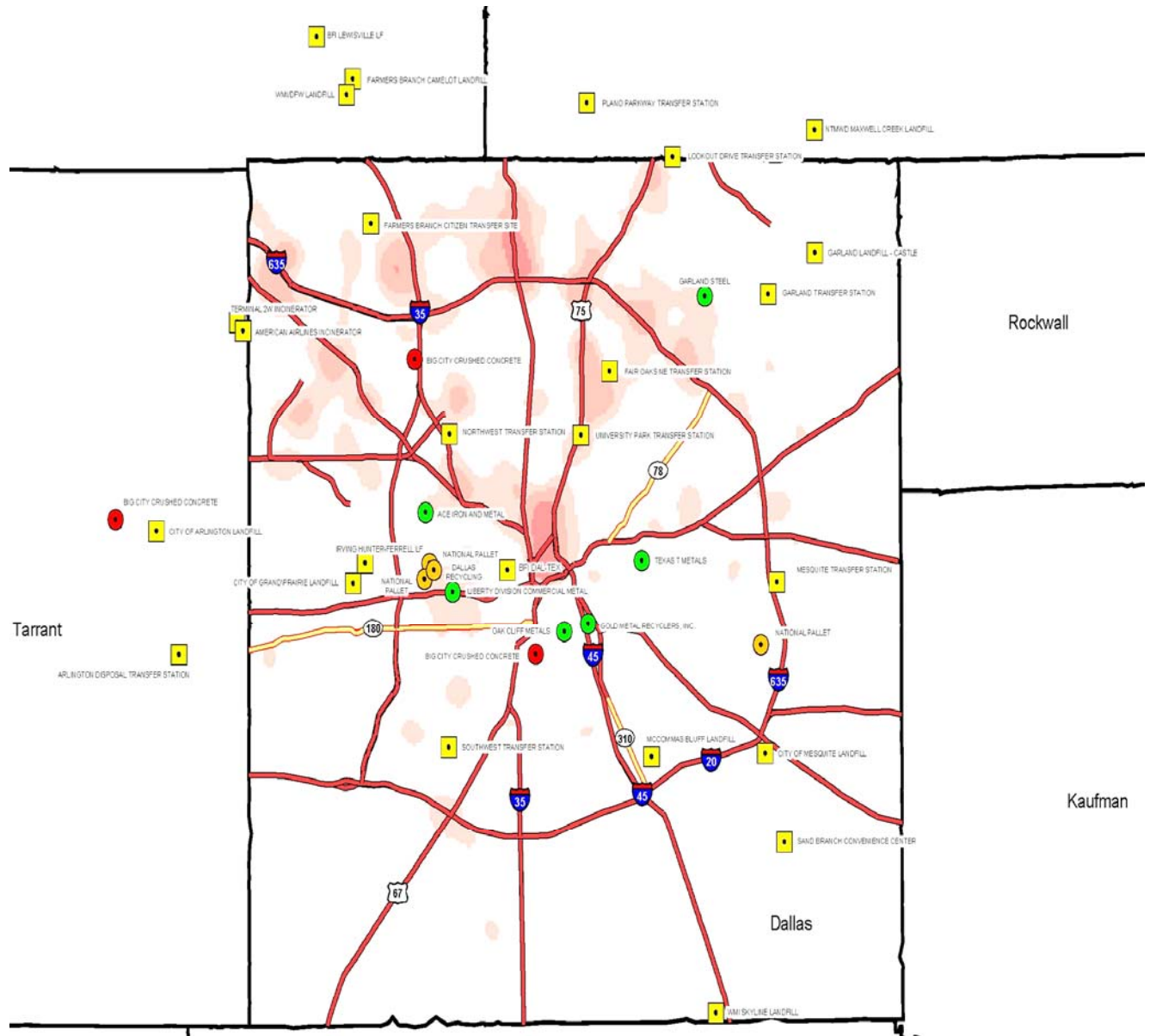
Source: Office of the City Auditor

Figure 1 McCommas Bluff Landfill Relative to Other Municipal Landfills

The North Central Texas Council of Governments has performed a study regarding economic development in the region and the impact such development may have on area landfills. The report indicates that the majority of high density development occurs in the northern half of Dallas County. This portion of Dallas County may readily be served by commercial and municipal landfills located in southern Denton and Collin Counties.

Figure 2 illustrates development density in Dallas County and the location of construction and debris waste handling facilities in counties surrounding the City. The figure was developed by the North Central Texas Council of Governments and presented in their report entitled "Regional Construction and Demolition Debris (C&D) Reduce/Reuse/Recycle (R3) Study" of August 2003.

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Legend	
C&D DEBRIS RECYCLERS	DENSITY OF DEVELOPMENT
CONCRETE	Value
METAL	High
WOOD	Low
LANDFILLS	
ACTIVE LANDFILLS	

Source: North Central Texas Council of Governments

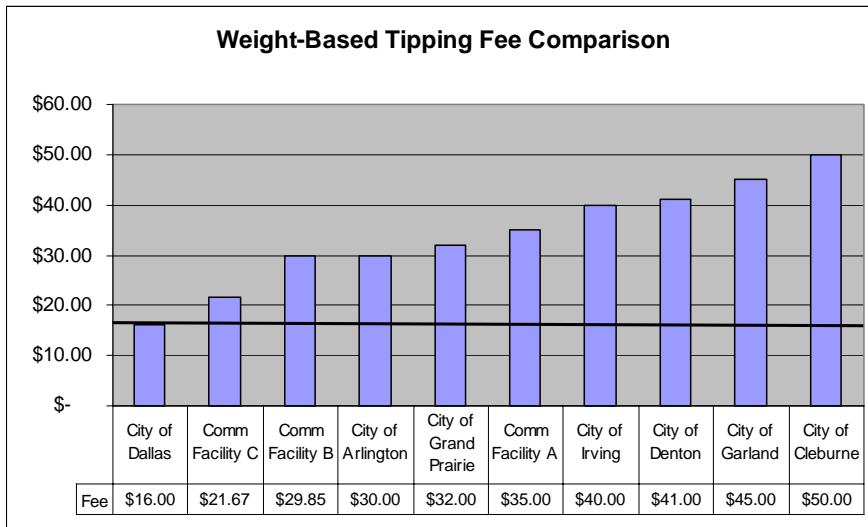
Figure 2 Development Density and Waste Facilities

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This audit was not designed, or intended to be a detailed study of every relevant policy, procedure, and transaction. Accordingly, the opportunities for improvement presented in this report may not be comprehensive of the areas where improvements may be needed.

1. McCommas Bluff Landfill charges less than surrounding landfills.

During December 2005, through February 2006, we surveyed 14 landfills to determine their tipping fee structures. The McCommas Bluff Landfill has the least expensive fee, a \$16 minimum fee that allows the hauler to deposit as much as one ton of material. This fee is 35.4% lower than the next higher priced commercial facility and 46.67% lower than the next higher priced municipal landfill in the area. Figure 3 illustrates the tipping fee comparison among the six municipalities. The figure has been annotated with an indicator line at the top of the graph bar indicating the City’s tipping fee of \$16.00/ton for use of McCommas Bluff. The indicator line shows how the landfill tipping fee relates to other area municipal landfills.



Source: Office of the City Auditor

Figure 3 Tipping Fee (Gate Fee) Comparison

Six landfills owned or operated for the benefit of local government’s base their tipping fees on weight. These fees ranged from a low of \$30.00/ton to a high of \$50.00/ton. Three of the eight commercial landfills also directly based their tipping fee on weight. These fees ranged from \$21.67/ton to \$35.00/ton. The remaining five commercial landfills assessed fees in terms of volume and are not readily comparable to those using weight-based fee structures.

2. McCommas Bluff Landfill could increase revenue by following commercial landfill process for collecting State-assessed environmental fee.

The State of Texas enacted legislation effective September 1, 1989, to fund programs that regulate the collection, handling, storage, processing, and disposal of non-hazardous municipal solid waste. The enacted legislation requires landfills to pay \$1.25

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per ton to the State of Texas for each ton of material handled at a non-hazardous solid waste facility.

Our analysis showed a difference in how the municipal landfills and commercial landfills assess the fee. The McCommas Bluff Landfill and all other surveyed municipal landfills include the State of Texas \$1.25 per ton environmental fee in their tipping fee. However, the commercial landfills generally add the environmental fee after the tonnage fee is determined. The City could pass this state-assessed fee on to customers and recover \$1.25 per ton revenue for the general fund. If the City were to elect to pass this fee on to customers, the increase in total fee to use the landfill could cause a short-term decrease in landfill usage by customers. This possibility has been encountered after each gate fee increase. However, our analysis shows this \$1.25 per ton increase would result in additional revenue of \$1.13M¹.

3. Impact of McCommas Landfill Fee Increases

Landfill pricing is competitive and rates change according to trends and other operating factors. The McCommas landfill fees increased to \$15 per ton in October 2001 and \$16 per ton in October 2004. McCommas still has the lowest fee of all surrounding landfills.

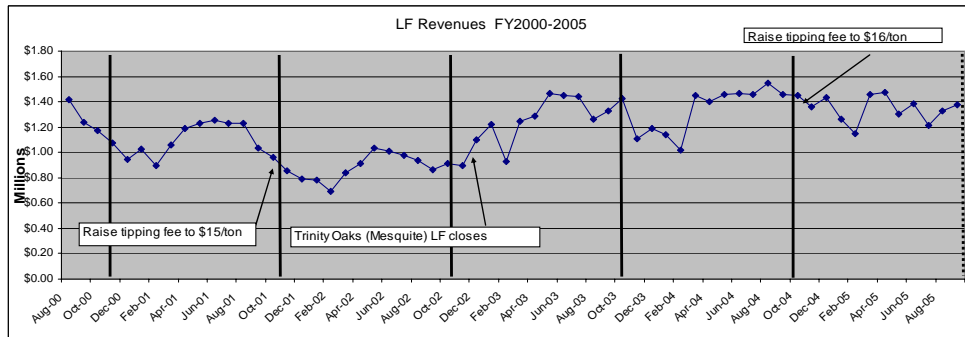
Our overall analysis of the information provided by the Sanitation Department showed that:

- Commercial revenue and tonnage levels decreased after the October 2001 fee increase. However, revenue decreases were occurring three months prior to the fee increase and continued for six months after the fee increase. We believe that factors other than the fee increase may have contributed to declining landfill usage and revenue during early FY 02.
- Commercial revenue and tonnage levels did decrease after the October 2004 fee increase but recovered to prior year levels almost immediately. This information may indicate that the October 2004 fee increase may have had little impact on the use of the landfill.

The following chart (Figure 4) was furnished by the Sanitation Department, and shows McCommas Bluff landfill revenues for a five year period. The chart indicates that revenues have steadily increased since the flat rate fee was instituted in October 2001. The chart also shows a pattern of seasonality for waste disposal. Although the cause is not definitely known, the second quarter of each fiscal year suffers a reduction in tonnage but the fourth quarter has an increase in tonnage deposited.

¹ Average annual tonnage received at the landfill during the three year period FY02-FY04 was calculated as 906,801 tons. Application of the \$1.25 per ton fee against this figure results in an earnings increase of \$1,133,501.00.

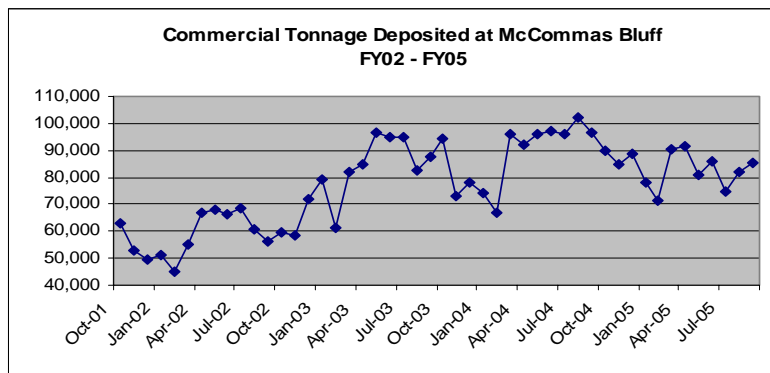
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Source: Department of Sanitation Services

Figure 4 Monthly Landfill Revenue

Figure 5 was developed from information provided by the Director of Sanitation. The chart illustrates that McCommas Bluff enjoyed an overall growth increase of 46.40% of tonnage deposited in FY 05 (1,003,100 tons) over FY 02 (685,175 tons).



Source: Department of Sanitation Services

Figure 5 Monthly Landfill Tonnage

Figures 4 and 5 display a general upward trend in both revenue and tonnage for the landfill.

To further evaluate the impact of fee increases on landfill usage and revenue, we obtained information from the sanitation department on the cash customers and the largest seven commercial customers for FY's 2003, 2004 and 2005. Our analysis showed that:

- Cash customers were not significantly impacted as revenue generated by cash customers was relatively consistent throughout each fiscal year.
- Commercial customer usage of the landfill after a fee increase varied by customer. Our analysis of the seven largest McCommas landfill commercial customers showed that (a) four customers maintained a consistent usage of the landfill after the fee increases, and (b) three customers displayed abnormal usage patterns. Although there is no definite correlation between fee increases

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and reduction in landfill use, we determined the following from these three customers:

Hauler A reduced usage at McCommas in February 2004 due to a “put or pay” contract with another area landfill. “Put or pay” contracts require the hauler to pay for landfill usage whether the hauler actually uses the landfill or not. This customer disposed of all waste at its second landfill in order to obtain the maximum value from its contract with that landfill.

Hauler B had a large drop in refuse volume in May 2005. This reduction was attributed by Sanitation to the October 2004 tipping fee increase. However, the reduction in volume occurred eight months after the tipping fee increase and this customer’s tonnage returned to an average of 91% of previous tonnage levels beginning in June 2005.

Hauler C did have a large drop in refuse volume occurring in February 2005, five months after the tipping fee increase. In addition to seasonal patterns and other significant economic factors, such as the cost of fuel during that time and the opening of a closer landfill, Hauler C’s operational area could have impacted the use of McCommas. Although Hauler C’s volume did not recover to the range of previous levels, it did increase during the remainder of FY 05. It is our opinion the additional economic factors may have contributed more to Hauler C’s decision not to return to McCommas Bluff than the fee increase.

We recommend the Director of Sanitation Services:

- Conduct periodic fee surveys of active area landfills not less than annually to determine and document the fee structures used by landfill facilities competing with McCommas Bluff.
- Consider the need for any fee increase by using regression analysis and evaluating relevant operational and local market factors such as:
 - Direct assessment of the \$1.25 per ton state environmental fee to customers as currently done by area commercial landfills;
 - Assess fees for not participating in the landfill’s commercial credit program;
 - Impact of tipping fee increase on revenue and tonnage figures;
 - Number and location of competing landfills; and
 - Economic factors such as increased cost of fuel.
- Set tipping fees in accordance with prevailing market conditions that allow the McCommas Bluff tipping fee to:
 - Be competitive with surrounding municipal and commercial landfills; and
 - Maximize the lifespan of the landfill.

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- Present fee survey information to the Quality of Life Council Committee in advance of budget cycle activities to permit Council:
 - To discuss operational policy before landfill budgeting activities; and
 - The opportunity to discuss fee changes relative to prevailing policy.

Management's Response:

- 1) Setting the tipping fee: I agree that the McCommas gate rate is less than other **posted** gate rates for metroplex landfills. However, what your report doesn't address is that the posted gate rate is seldom the charged rate for most private landfills – and that, based on our research of market conditions and querying our largest customers, the charged rate is most often less than the McCommas rate. Currently, charged rates between \$12.50 and \$15.00/ton are common for put-or-pay contracts at private landfills.

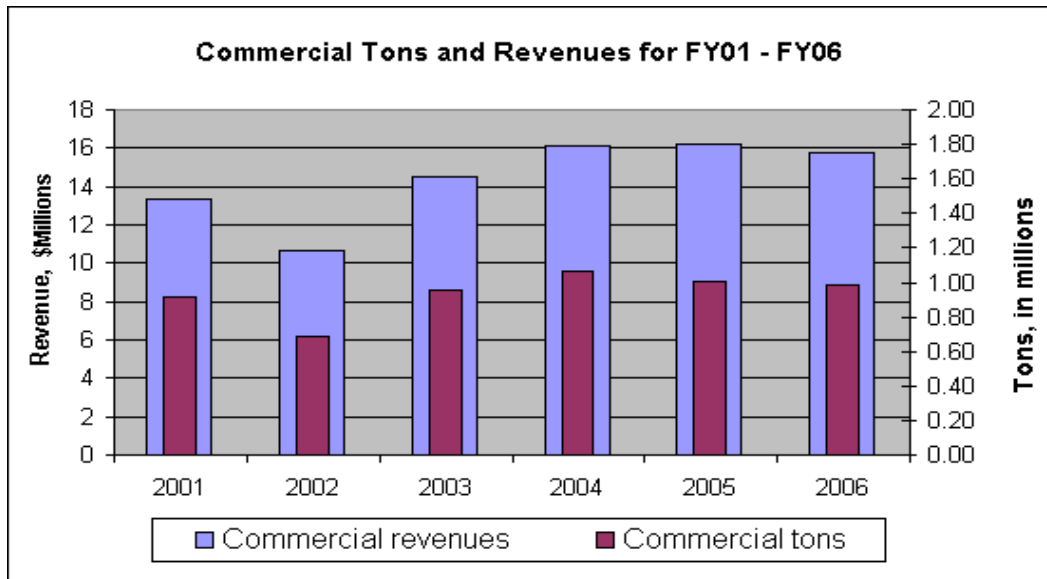
Other metroplex cities that have landfills (Garland, Irving, Grand Prairie, Denton and Ft. Worth) have much, much smaller operations. Most have introduced ordinances and pricing structures that discourage or exclude non-city-generated wastes in order to preserve their sites for city use. And while Dallas' McCommas Bluff Landfill is also a resource to be preserved, its current waste capacity (115M cubic yards) is far in excess of the other municipal sites in DFW, which average less than 20M cubic yards. We can thus use our site for both city-generated waste streams as well as extending a revenue-generating opportunity to non-city-generated wastes – comparable to privately-owned sites.

Setting a rate (tipping fee) is a balancing act, with influences that are both defined and unpredictable. For example, we do have control over the waste compaction rate, the operating crew size, site operating hours, the site management of roads and manpower and equipment. We don't have much influence on the weather, the price of fuel, the number of customers who choose our site over others, and how other sites are pricing their disposal rates. Nevertheless, even with those factors over which we have little or no control, we have some level of ability to predict – and that leads to the day-by-day, year-by-year balancing act of pricing.

- 2) Tonnage and revenues - recovery rate after a fee increase: The draft report states that, after a fee increase, the tonnage and revenues recover relatively quickly. The report further states that, prior to the Oct 2001 fee increase, tonnage rates were already decreasing, implying that the fee increase had little affect on this downward trend. I disagree.

The following chart shows that, with the fee increases in FY 02 and FY 04, tonnage and revenues decreased notably and required 12 months or longer to recover. **Tonnage has not yet fully bounced back from the FY 04 fee increase.**

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3) Recommendations from the draft report:

- a. Conduct annual fee surveys. We do this now – and will endeavor to seek confidential input from our commercial haulers as to regional pricing at competing sites.
- b. Set tipping fees with consideration to prevailing market conditions. Agreed – we do this now, and will provide Council with information to substantiate market conditions and rates.
- c. Present survey information to Council / Committees. Agreed – and will do so with each pending change in fee.

I would further suggest that, because of the ability for our larger landfill customers to seek discount rates at other sites – and thus take their waste (and revenues) elsewhere without any notice, the revenues for the McCommas site are vulnerable to peaks and valleys beyond our prediction. We should consider offering the same sort of discount to our customers, securing their commitment for disposal on a quantity and/or time period basis. We should develop a sliding scale price matrix based on a customer's contracted volume, with further discount available for longer time period commitments. Customers unwilling to make such a commitment will be held to the posted gate rate – which rate would vary per market conditions. We are examining such a pricing structure at this time.

As the caretakers of an important city-owned facility, we take pride in managing this city asset. Before we look at increasing tipping fees, we listen to the customers, project short- and long-term effects, weed out any possible inefficiency that exists in our operation, and then pursue innovative changes that will allow us to complete our mission without increasing customer expense. Although, there are significant differences between our operations and those of private facilities, we operate considerably more like the private operations than most municipal sites. In doing so, we

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have developed one of the most attractively priced and operationally inviting facilities in the state and in the country.

Auditor's Comments:

The landfill revenue has either remained the same or increased since the last fee increase in October 2004. We agree the City of Dallas must maintain a balance between preserving the landfill capacity and establishing a revenue-generating opportunity to the City.