

5.0 FINANCIAL ANALYSIS

5.1 LANDFILL FINANCIAL ASSURANCE REVIEW

5.1.1 Overview

The objective of this task is to review the City financial assurance calculation and determine the adequacy of the annual payments to meet regulatory and physical closure and post-closure requirements. To initiate this task we reviewed the following:

- Memorandum and attachment dated February 21, 2002, from Doug Johnson, Environmental Analyst, to Duane Hatch, Senior Accountant, describing the approach taken by the City to calculate closure and postclosure costs for meeting the financial assurance requirements.
- Closure/post-closure plan (HDR, 2001b) for the Active Site dated August 2001 developed by HDR (Plan) for the City of Sioux Falls Regional Sanitary Landfill (SFRSL).
- Solid Waste Permit Renewal Application dated August 2001 (LBG, 2001).
- Administrative Rules of South Dakota (ARSD) Chapter 74:27:15, Closure and Post-Closure, and Chapter 74:27:16, Financial Assurance.
- E-mail dated June 3, 2003, from Bob Kappel providing additional background on the City's approach for calculating financial assurance.

5.1.2 Closure Costs Calculation

The closure costs are estimated in the Plan per the requirements specified in ARSD Chapter 74:27:15:04. The estimated costs are based on historical bid pricing to complete similar work as referenced in the applicable rule. The Plan states the estimated cost per acre of the Active Site is \$35,960 with total closure costs of \$5,214,200 for closure of 145 acres.

Per our review of the detailed calculations in the Plan, it appears the method used to determine closure costs for the active site are consistent with the applicable ARSD. To determine the closure costs component of the financial assurance, the total closure costs expended to date for the Active Area need to be subtracted from the adjusted total closure costs calculation.

5.1.3 Post-Closure Costs Calculation

The post-closure costs are estimated in the Plan per the requirements set out in ARSD Chapter 74:27:15:09. This calculation includes estimated costs for post-closure care as defined in ARSD Chapter 74:27:15:09 including, but not limited to, costs associated with final cover, leachate management, groundwater monitoring, and LFG management. The Plan states the estimated annual post-closure costs for the Active Site to be \$75,690 in 2001 dollars with a total of \$2,270,700 for the 30-year post-closure period.

Per our review of the detailed calculations in the Plan, it appears the scope of the post-closure costs for the Active Site are consistent with the applicable ARSD. However, we would recommend that the 30-year post-closure costs be discounted to develop a present value calculation to more accurately represent the post-closure costs.

5.1.4 Financial Assurance Mechanism and Fund Balance

The City presently uses a Cash Reserve Account as its assurance mechanism. Per the ARSD, the components of financial assurance shall be closure, postclosure, corrective action and may include environmental remediation. Based on our review, the rules as drafted appear to provide broad discretion to the South Dakota Department of Environment and Natural Resources (SDDENR) in defining the scope of the required financial assurance.

Based on review of the City Public Works Department information addressing SFRSL financial assurance, the closure and post-closure costs as of December 31, 2001, were calculated to be \$2,570,639 and \$1,000,000 for corrective action for a total of \$3,570,639. Per City staff, the City's current financial assurance calculations are based on a closure/post closure study completed in 1994 (LBG) and the Plan was not used to modify or update the City's financial assurance requirements. Thus, the financial assurance calculation was based on volumetric capacity as opposed to total acreage needing to be closed.

Provided below is a summary of the City's financial assurance and calculations as provided by the Health Department. The closure costs were projected based upon estimated costs to close one 6-acre cell. Additions to the financial assurance fund balance were determined using volumetric estimates and in accordance with Governmental Accounting Standards.

Initial Estimate

\$1,350,000	Closure/Post Closure Care
\$750,000	Environmental Remediation
\$2,100,000	Initial Total (Approximately nine years ago)

1994 - 2002 Additions

\$1,035,528	Closure/Post Closure Care
\$250,000	Environmental Remediation
\$1,285,528	Total Increase to Financial Assurance Cash Account

Present Total

\$2,385,528	Closure/Post Closure Care
\$1,000,000	Environmental Remediation
\$3,385,528	Current Financial Assurance Account Balance

The total annual payment for the Active Site for 2001 was estimated by City to be \$325,421.20.

5.1.5 Alternative Calculations

Based on the above information, R.W. Beck, with input from City staff, contacted representatives of the SDDENR to discuss the applicable ARSD as applied to the City's landfill and its financial assurance. The primary objective was to clarify the scope of the financial assurance requirements. Per discussions with SDDENR representatives, the Project Team concluded the following:

- Restricted use areas designated for construction and demolition disposal are not subject to financial assurance calculations.
- Environmental remediation costs do not need to be designated as part of the financial assurance set-aside requirements.
- Financial assurance calculations should be periodically updated and should be adequate for closure and post-closure throughout the life of the facility. It appears some flexibility exists as to the financial assurance set aside standard. An alternative to the standard requiring adequate set aside for closure of the "largest area of the landfill open at any time during the operations of the facility" may be acceptable.

As a result, R.W. Beck recalculated the City's financial assurance requirements and developed two sets of calculations. The first set of calculations, *Scenario A: All Planned Cells*, represents the projected closure and post-closure obligation assuming closure and post-closure obligations begin at the end of projected life of the landfill in 2038. The second set of calculations, *Scenario B: Largest Expansion Area (Cell 6)* represent the projected closure and post-closure obligations assuming closure and post-closure obligations would begin if the largest segment of the Expansion Area to be open at any one time needed to be closed. Per the phasing plan, under this scenario we are assuming closure of the landfill in 2014 with an expected life of 11 years per the phasing plan.

Key assumptions included in both analyses are as follows:

- Final cover area for active site of approximately 145 acres.
- Post-closure period of 30 years.
- Discount rate of 1.25 percent.
- Final post-closure cover area for Expansion Area is approximately 50 acres.
- Current estimated 2003 end of year financial assurance fund balance of \$3,455,608.
- No specific set aside required for the environmental remediation component,
- Closure and post-closure unit cost estimates developed previously for the city were used and not updated.

The following tables provide the present values for closure and post-closure costs, total financial obligation, and projected monthly payment under the two scenarios.

TABLE 5-1

SCENARIO A: ALL PLANNED CELLS
Calculation of Financial Assurance Obligation
30 Year Post-Closure: 2039 to 2069

Present Value of:		
Closure Costs	\$2,311,471	Closure of Cells 1-6
Post-Closure Costs	\$2,107,470	Active Site
Post-Closure Costs	\$2,124,915	Expansion Area
Contingency Action	\$0	
Total Obligation	\$6,543,856	
Current Balance of Fund	\$3,455,608	(Estimate, 2003 year end)
Expected Life	35 years	(2004 to 2038)
Projected Monthly Payment	\$9,082.11	
Total Lump Sum for Remainder of Life	\$3,088,247	

TABLE 5-2

SCENARIO B: LARGEST EXPANSION AREA (CELL 6)
Calculation of Financial Assurance Obligation
30 Year Post-Closure: 2015 to 2044

Present Value of:		
Closure Costs	\$2,311,471	Closure of Cells 1-6
Post-Closure Costs	\$2,220,412	Active Site
Post-Closure Costs	\$2,238,793	Expansion Area
Contingency Action	\$0	
Total Obligation	\$6,770,676	
Current Balance of Fund	\$3,455,608	(estimate, 2003 year end)
Expected Life	11 years	(2004 to 2014)
Projected Monthly Payment	\$26,893.36	
Total Lump Sum for Remainder of Life	\$3,315,067	

5.1.6 Financial Assurance Recommendations

Both above analyses suggest total additional financial assurance obligations of more than \$3,000,000. However, Scenario A financial requirements are approximately \$109,000 per year, as opposed to approximately \$322,000 per year for Scenario B. Scenario A offers an annual payment substantially less than the total annual set aside of \$325,421 reported by the City in 2001. Per our review and discussions with the SDDENR staff, the annual set aside of approximately \$109,000 per year identified in Scenario A may be adequate to meet the requirements. We recommend presenting this alternative calculation to the SDDENR for consideration. At minimum, we recommend the existing closure and post-closure per unit

cost estimates be updated so financial assurance calculations can be more reliably updated during the future operating life of the landfill.

5.2 TIP FEE ANALYSIS

5.2.1 Overview

This task involved review of current SFRSL operational costs and planned facility and equipment upgrades in conjunction with the total landfill revenue. The objective is to identify a potential tip fee level needed to generate adequate revenue to meet future program needs through the next 5 years. The spreadsheets included with this evaluation provide a summary of the overall analysis.

The key assumptions in our analysis include the following:

- Projected revenues based on average annual growth rates using historical landfill receipts from 1996-2002 (excluding C&D).
- C&D disposal growth rate peaks at an average historical rate in 2003 and is gradually reduced to 4 percent or the estimated MSW growth rate through the planning period to reflect a more conservative estimate in the intermediate term.
- Revenues from hauler licenses increased at the present rate of inflation.
- All operating expenses are projected to increase at the assumed rate of inflation unless otherwise designated.
- Capital improvement expenses for 2004-2008 are based on the Project Team's recommendations with input from City staff.
- Annual financial assurance expenses are comparable to estimates developed by the Project Team using the alternative analysis developed in Section 5.1 identifying a reduced annual set aside.
- An applicable portion of the City's solid waste restricted reserves fund has been used to cover costs of the closure and post-closure care for the Active Area.
- Three million dollars from the unrestricted reserves fund balance of approximately \$6.9 million has been used over the five year planning period to reduce the net expenses. The total dollars used annually from the unrestricted fund are proportional to the annual capital expenses for each of the years of 2004 to 2008 over the total capital expenses for the five year time frame. As a result, approximately \$3.9 million was retained in the unrestricted fund because it represents, on average, approximately one year of operating expenses, excluding planned capital expenses.
- Capital improvement costs are assumed to be paid in full during year incurred, no cost levelizing has been undertaken, and no debt service incurred.
- The MSW and C&D tip fees for 2004 through 2008 represent the recommended tip fees.

The following three tables depict the projected revenues and expenses for years 2003 to 2008. Table 5-3 identifies the annual net income/loss based on the differential between the annual revenues and expenses. Table 5-4 provides revenue detail while Table 5-5 provides expense detail.

TABLE 5-3

SUMMARY SANITARY LANDFILL TIP FEE ANALYSIS

	Actual		Budget	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
ESTIMATED ANNUAL REVENUES								
Tip Fee Revenues								
MSW	1,983,797	2,062,302	2,224,371	4,199,994,	4,366,910	4,540,460	4,720,907	4,908,525
Yard Waste	49,976	55,521	32,493	37,661	43,652	50,595	58,643	67,971
Tire Disposal	17,774	13,479	15,627	16,095	16,578	17,075	17,588	18,115
C&D (Rubble)	1,140,669	1,104,823	837,792	1,698,886	1,815,945	1,923,418	2,018,555	2,098,777
Petroleum Contaminated Soil	11,544	49,388	50,823	52,300	53,820	55,384	56,994	58,650
Asbestos	3,123	5,355	25,524	23,930	22,435	21,034	19,720	18,488
Appliances	11,643	19,665	15,654	16,124	16,607	17,106	17,619	18,147
Total Tipping Revenues	3,218,526	3,310,533	3,202,284	6,044,990	6,335,948	6,625,072	6,910,025	7,188,674
Miscellaneous Revenues								
Interest Earned	556,835	418,216	421,055	330,701	281,884	253,687	227,747	217,440
Hauler Licenses and Permits	29,600	19,250	30,488	31,403	32,345	33,315	34,315	35,344
Other	1,968	31,415	2,027	2,088	2,150	2,215	2,281	2,350
Total Miscellaneous Revenues	586,435	437,466	453,570	364,192	316,379	289,217	264,343	255,134
Reserve Withdrawal								
Restricted Reserves	-	-	-	1,178,000	608,000	80,000	80,000	80,000
Unrestricted Reserves	-	-	-	1,070,538	607,357	574,639	570,017	177,449
TOTAL ANNUAL REVENUES	3,804,961	3,747,999	3,655,854	8,657,720	7,867,684	7,568,928	7,824,385	7,701,257

TABLE 5-3

SUMMARY SANITARY LANDFILL TIP FEE ANALYSIS

	Actual		Budget	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
ESTIMATED ANNUAL EXPENSES								
Wages	643,965	718,043	753,334	775,934	799,212	823,188	847,884	873,321
Social Security & Medicare	45,926	51,591	54,885	56,532	58,227	59,974	61,774	63,627
Fringe Benefits	121,131	154,584	201,416	207,458	213,682	220,093	226,695	233,496
Insurance (Property, Liability)	19,466	9,398	8,602	8,860	9,126	9,400	9,682	9,972
Professional Services	509,368	479,846	1,041,566	1,072,813	1,104,997	1,138,147	1,172,292	1,207,460
Publishing	-	-	-	-	-	-	-	-
Rentals	23,841	23,561	24,040	24,761	25,504	26,269	27,057	27,869
Repair & Maintenance	129,452	196,952	258,459	266,213	274,199	282,425	290,898	299,625
Supplies & Materials	211,469	174,840	289,780	298,475	307,427	316,650	326,149	335,934
Job Performance	14,587	14,318	14,145	14,569	15,006	15,457	15,920	16,398
Recycling and Reuse	-	-	25,000	100,000	50,000	50,000	50,000	50,000
Utilities	19,728	21,437	39,617	40,806	42,030	43,291	44,589	45,927
Household Haz Mat Ops Costs	-	-	-	328,229	338,076	348,218	358,665	369,425
Aerial Site Surveys	-	-	10,000	10,000	10,000	10,000	10,000	10,000
Other Current Expenses	123,699	129,541	-	128,000	131,840	135,795	139,869	144,065
Capital Expenses	1,756,281	2,429,106	-	-	-	-	-	-
Capital Planning Needs	-	-	3,115,930	7,527,304	4,270,530	4,406,480	4,007,980	1,247,700
Financial Assurance	-	-	98,316	98,316	98,316	98,316	98,316	98,316
Transfers	-	-	95,026	-	-	-	-	-
Misc. Expenses	(1,430,303)	360,114	360,114	360,114	360,114	360,114	360,114	360,114
TOTAL ANNUAL EXPENSES	2,188,610	4,763,331	6,390,230	11,318,385	8,108,287	8,343,817	8,047,884	5,393,249
DEBT SERVICE	-	-	-	-	-	-	-	-
NET INCOME (LOSS)	1,616,351	(1,015,332)	(2,734,376)	(2,660,665)	(240,603)	(774,889)	(223,499)	2,308,008

TABLE 5-4

SANITARY LANDFILL TIP FEE ANALYSIS - REVENUES

		Actual		Budgeted	Projected				
		2001	2002	2003	2004	2005	2006	2007	2008
OPERATING REVENUES									
Tipping Fees									
MSW	(\$/ton)	13.75	13.75	13.75	24.97	24.97	24.97	24.97	24.97
Yard Waste	(\$/ton)	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Tire Disposal	(\$/ton)	NA	NA	NA	NA	NA	NA	NA	NA
C&D (Rubble)	(\$/ton)	12.75	12.75	12.75	23.97	23.97	23.97	23.97	23.97
Petroleum Contaminated Soil	(\$/ton)	8.62	7.63	7.63	7.63	7.63	7.63	7.63	7.63
Asbestos	(\$/ton)	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Appliances	(\$/ton)	NA	NA	NA	NA	NA	NA	NA	NA
Tipping Quantities									
MSW	(tons/year)	153,562	155,589	161,772	168,202	174,886	181,837	189,063	196,577
Yard Waste	(tons/year)	5,054	5,097	5,908	6,847	7,937	9,199	10,662	12,358
Tire Disposal	(tons/year)	NA	NA	NA	NA	NA	NA	NA	NA
C&D (Rubble)	(tons/year)	65,156	59,448	65,709	70,876	75,759	80,243	84,212	87,558
Petroleum Contaminated Soil	(tons/year)	1,340	6,471	6,660	6,853	7,052	7,257	7,468	7,685
Asbestos	(tons/year)	571	605	567	532	499	467	438	411
Appliances	(tons/year)	NA	NA	NA	NA	NA	NA	NA	NA
Total Tipping Tonnage	(tons/year)	225,683	227,210	240,616	253,309	266,133	279,003	291,843	304,590

TABLE 5-4

SANITARY LANDFILL TIP FEE ANALYSIS - REVENUES

		Actual		Budgeted	Projected				
		2001	2002	2003	2004	2005	2006	2007	2008
Tipping Revenues									
MSW	(\$)	1,983,797	2,062,302	2,224,371	4,199,994	4,366,910	4,540,460	4,720,907	4,908,525
Yard Waste	(\$)	49,976	55,521	32,493	37,661	43,652	50,595	58,643	67,971
Tire Disposal	(\$)	17,774	13,479	15,627	16,095	16,578	17,075	17,588	18,115
C&D (Rubble)	(\$)	1,140,669	1,104,823	837,792	1,698,886	1,815,945	1,923,418	2,018,555	2,098,777
Petroleum Contaminated Soil	(\$)	11,544	49,388	50,823	52,300	53,820	55,384	56,994	58,650
Asbestos	(\$)	3,123	5,355	25,524	23,930	22,435	21,034	19,720	18,488
Appliances	(\$)	11,643	19,665	15,654	16,124	16,607	17,106	17,619	18,147
Total Tipping Revenues	(\$)	3,218,526	3,310,533	3,202,284	6,044,990	6,335,948	6,625,072	6,910,025	7,188,674
Miscellaneous Revenues									
Interest Earned	(\$)	556,835	418,216	421,055	330,701	281,884	253,687	227,747	217,440
Hauler Licenses and Permits	(\$)	29,600	19,250	30,488	31,403	32,345	33,315	34,315	35,344
Other	(\$)	1,968	31,415	2,027	2,088	2,150	2,215	2,281	2,350
Total Misc. Revenues	(\$)	586,435	437,466	453,570	364,192	316,379	289,217	264,343	255,134
Reserve Withdrawal									
Restricted Reserves					1,178,000	608,000	80,000	80,000	80,000
Unrestricted Reserves					1,070,538	607,357	574,639	570,017	177,449
TOTAL REVENUES	(\$)	3,804,961	3,747,999	3,655,854	8,657,720	7,867,684	7,568,928	7,824,385	7,701,257

TABLE 5-4

SANITARY LANDFILL TIP FEE ANALYSIS - REVENUES

	Actual		Budgeted	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
Restricted Reserves Account Activity								
Beginning Balance				3,455,608	2,277,608	1,669,608	1,589,608	1,509,608
Phase II Closure Costs				1,178,000	-	-	-	-
Phase III Closure Costs				-	608,000	-	-	-
Active Area Post-Closure Care				-	-	80,000	80,000	80,000
Ending Balance		3,385,528	3,455,608	2,277,608	1,669,608	1,589,608	1,509,608	1,429,608
Unrestricted Reserves Parameters								
Approximate Balance		6,937,620						
Average Expenses 2004-2008		3,950,326						
Available Proceeds		2,987,294						
Rounded Available Proceeds		3,000,000						

TABLE 5-5

SANITARY LANDFILL TIP FEE ANALYSIS – EXPENSES

	Actual		Budgeted	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
Wages								
Full-Time	571,784	606,529	666,703	686,704	707,305	728,524	750,380	772,892
Overtime	26,226	32,131	24,000	24,720	25,462	26,225	27,012	27,823
Standby	504	156	-	-	-	-	-	-
Part-time	31,317	69,227	45,820	47,195	48,610	50,069	51,571	53,118
Sick Leave & Benefits	5,962	1,677	5,807	5,981	6,161	6,345	6,536	6,732
Deferred Compensation	8,172	8,323	11,004	11,334	11,674	12,024	12,385	12,757
Total Wages	643,965	718,043	753,334	775,934	799,212	823,188	847,884	873,321
Social Security & Medicare	45,926	51,591	54,885	56,532	58,227	59,974	61,774	63,627
Fringe Benefits								
Retirement Contribution	54,861	57,695	67,851	69,887	71,983	74,143	76,367	78,658
Worker's Compensation	9,317	9,219	7,061	7,273	7,491	7,716	7,947	8,186
Group Insurance	55,715	85,434	124,141	127,865	131,701	135,652	139,722	143,913
Life Insurance	1,238	2,236	2,363	2,434	2,507	2,582	2,660	2,739
Total Fringe Benefits	121,131	154,584	201,416	207,458	213,682	220,093	226,695	233,496
Insurance (Property, Liability)	19,466	9,398	8,602	8,860	9,126	9,400	9,682	9,972
Professional Services								
Independent Contractor	416,303	373,466	608,308	626,557	645,354	664,715	684,656	705,196
From Other Departments	82,470	92,827	1,680	1,730	1,782	1,836	1,891	1,948
Other	10,595	11,580	406,578	418,775	431,339	444,279	457,607	471,335
Hazardous Waste	-	-	10,000	10,300	10,609	10,927	11,255	11,593
Information Technology	-	-	-	-	-	-	-	-
Publishing	-	1,973	15,000	15,450	15,914	16,391	16,883	17,389
Total Professional Services	509,368	479,846	1,041,566	1,072,813	1,104,997	1,138,147	1,172,292	1,207,460

TABLE 5-5

SANITARY LANDFILL TIP FEE ANALYSIS – EXPENSES

	Actual		Budgeted	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
Publishing	-	-	-	-	-	-	-	-
Rentals								
Property	18,719	18,436	17,825	18,360	18,911	19,478	20,062	20,664
Technology Equipment	5,122	5,125	6,215	6,401	6,593	6,791	6,995	7,205
Total Rentals	23,841	23,561	24,040	24,761	25,504	26,269	27,057	27,869
Repair & Maintenance								
Licensed Vehicles	4,552	17,758	9,950	10,249	10,556	10,873	11,199	11,535
Unlicensed Vehicles	71,744	137,441	167,519	172,545	177,721	183,053	188,544	194,200
Other Equipment	8,304	11,241	6,315	6,504	6,700	6,901	7,108	7,321
Buildings & Structures	3,385	5,538	8,250	8,498	8,752	9,015	9,285	9,564
Street, Curb & Sidewalk	27,842	15,915	47,400	48,822	50,287	51,795	53,349	54,950
Utilities	11,712	1,492	1,625	1,674	1,724	1,776	1,829	1,884
Grounds	1,913	7,567	17,400	17,922	18,460	19,013	19,584	20,171
Total Repair & Maintenance	129,452	196,952	258,459	266,213	274,199	282,425	290,898	299,625
Supplies & Materials								
Office	45,266	49,472	44,330	45,660	47,030	48,441	49,894	51,391
Fuel	92,210	93,730	103,125	106,219	109,405	112,687	116,068	119,550
Clothing & Protective Equip	6,654	2,421	10,250	10,558	10,874	11,200	11,536	11,883
Small Tools & Minor Equip	3,645	921	7,930	8,168	8,413	8,665	8,925	9,193
Chemical / Lab	1,050	-	1,165	1,200	1,236	1,273	1,311	1,351
Janitorial / Shop	2,281	1,622	2,995	3,085	3,177	3,273	3,371	3,472
Other	53,979	13,587	69,750	71,843	73,998	76,218	78,504	80,859
Traffic Materials & Signs	133	1,906	12,365	12,736	13,118	13,512	13,917	14,334
Non-Capital Inventory	6,251	9,632	34,170	35,195	36,251	37,338	38,459	39,612

TABLE 5-5

SANITARY LANDFILL TIP FEE ANALYSIS – EXPENSES

	Actual		Budgeted	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
Cmptr Hdw (-500) & Software	-	-	3,700	3,811	3,925	4,043	4,164	4,289
Cmptr Hdw (500 to 7,500)	-	-	-	-	-	-	-	-
Inventory Adjustment	-	1,549	-	-	-	-	-	-
Total Supplies & Materials	211,469	174,840	289,780	298,475	307,427	316,650	326,149	335,934
Job Performance								
Travel, Education & Training	7,833	7,419	8,150	8,395	8,646	8,906	9,173	9,448
Memberships & Dues	1,751	2,292	1,990	2,050	2,111	2,175	2,240	2,307
Subscriptions & Publications	31	-	705	726	748	770	793	817
Mileage / Motor Pool	4,972	4,607	3,300	3,399	3,501	3,606	3,714	3,826
Total Job Performance	14,587	14,318	14,145	14,569	15,006	15,457	15,920	16,398
Recycling & Reuse								
Expand Website	-	-	-	10,000	-	-	-	-
Update Recycling Plan	-	-	25,000	-	-	-	-	-
Recycling Coordinator	-	-	-	40,000	40,000	40,000	40,000	40,000
Educational Materials	-	-	-	50,000	10,000	10,000	10,000	10,000
Total Recycling & Reuse	-	-	25,000	100,000	50,000	50,000	50,000	50,000
Utilities								
Telephone	9,261	7,980	10,374	10,685	11,006	11,336	11,676	12,026
Natural Gas	2,110	819	7,150	7,365	7,585	7,813	8,047	8,289
Electricity	7,850	10,911	9,350	9,631	9,919	10,217	10,524	10,839
Water	507	1,727	4,743	4,885	5,032	5,183	5,338	5,498
Sanitation	-	-	8,000	8,240	8,487	8,742	9,004	9,274
Total Utilities	19,728	21,437	39,617	40,806	42,030	43,291	44,589	45,927
Household Haz Mat Ops Costs	-	-	-	328,229	338,076	348,218	358,665	369,425
Aerial Site Surveys	-	-	10,000	10,000	10,000	10,000	10,000	10,000
Other Current Expenses	123,699	129,541	-	128,000	131,840	135,795	139,869	144,065

TABLE 5-5

SANITARY LANDFILL TIP FEE ANALYSIS – EXPENSES

	Actual		Budgeted	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
Capital Expenses								
Land	246,123	2,000	-	-	-	-	-	-
Buildings	-	722,079	-	-	-	-	-	-
Improvements Other than Bldgs	1,182,001	941,313	-	-	-	-	-	-
Equipment	77,941	303,262	-	-	-	-	-	-
Engineering/Geotechnical	250,216	460,452	-	-	-	-	-	-
Total Capital Expenses	1,756,281	2,429,106	-	-	-	-	-	-
Capital Planning Needs								
Active Area								
Leachate Extraction System			-	699,600	-	-	-	-
Gas Extraction System					-	-	-	1,028,200
Phase II Closure			-	1,178,000	-	-	-	-
Phase III Closure			-	-	608,000	-	-	-
Post-Closure Care					-	80,000	80,000	80,000
Expansion Area								
Cell 1 leachate system			350,000	-	-	-	-	-
Cell 2 (Eng & Const)			-	122,300	2,286,600	-	-	-
Cell 3 (Eng & Const)			-	-	-	170,400	3,185,300	-
Cell 4 (Eng & Const)			-	-	-	-	-	140,700
Land Acquisition			-	800,000	-	400,000	-	400,000
Wetlands								
Engineering			8,000	6,000	5,250	-	-	-
Construction			114,240	-	75,000	-	-	-
Leachate Management System								
Engineering			259,590	-	-	-	-	-
Construction			2,345,730	-	-	-	-	-
Semi Tanker Truck			-	137,000	-	-	-	-

TABLE 5-5

SANITARY LANDFILL TIP FEE ANALYSIS – EXPENSES

	Actual		Budgeted	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
HHW Center (Eng. & Const)			-	1,500,000	-	-	-	-
Compost Pad (Eng. & Const)			-	60,000	-	-	-	-
Equipment Bldg (Eng & Const)			-	-	-	1,250,000	-	-
Landfill Compactor - Repl			-	-	450,000	-	-	-
Landfill Compactor - New			-	700,000	-	-	-	-
Leachate Extraction System								
Engineering			-	47,000	-	-	-	-
Construction					-	260,000	-	-
Landfill Gas Extraction System								
Engineering			-	57,000	-	143,000	-	-
Construction					-	335,600	-	885,200
Roads, Grading and Surfacing								
Access Road to Cell 1			-	200,000	-	-	-	-
Reconfig Entrance Rd			-	100,000	-	-	-	-
Lockers			-	-	-	30,000	-	-
Radio Network			-	21,244	-	-	-	-
Pickup ¾ Ton 4x4			-	-	27,000	-	-	27,000
Pickup ½ Ton 4x4			-	-	-	-	-	25,000
Leachate Recirculator Truck			-	-	-	-	120,000	-
Dump Truck			-	60,200	-	-	-	-
Dust Control Tanker			-	17,000	-	-	-	-
Litter Vacuum			-	20,000	-	-	-	-
ATV (Gator type)			-	-	10,000	-	-	-
Hook Truck			120,000	-	-	-	-	-
5,000 gal semi-tanker			-	137,000	-	-	-	-
Vehicle Attachments - Disc			-	15,000	-	-	-	-
Mower Attachment			-	-	-	-	15,000	-

TABLE 5-5

SANITARY LANDFILL TIP FEE ANALYSIS – EXPENSES

	Actual		Budgeted	Projected				
	2001	2002	2003	2004	2005	2006	2007	2008
Scraper			-	-	-	-	550,000	575,000
Dozer			-	-	330,000	340,000	-	-
Fork Lift			-	-	-	22,000	-	-
Landfill Compactor			-	-	425,000	-	-	-
Public Drop-off (Eng & Const)			-	446,000	-	-	-	-
Recycling Bins			-	525,000	-	-	-	-
Total Capital Planning Needs			3,115,930	7,527,304	4,270,530	4,406,480	4,007,980	1,247,700
Financial Assurance	-	-	98,316	98,316	98,316	98,316	98,316	98,316
Transfers	-	-	95,026	-	-	-	-	-
Miscellaneous Expenses								
Depreciation	325,884	360,114	360,114	360,114	360,114	360,114	360,114	360,114
Uncollectible Receivables	94	12,672	-	-	-	-	-	-
Capitalized Purchases	(1,756,281)	(2,429,106)	-	-	-	-	-	-
Total Misc. Expenses	(1,430,303)	(2,056,320)	360,114	360,114	360,114	360,114	360,114	360,114
Debt Service								
TOTAL EXPENSES	2,188,610	2,346,897	6,390,230	11,318,385	8,108,287	8,343,817	8,047,884	5,393,249

5.2.2 Results

Based upon the above analysis, we have calculated the MSW and C&D tip fees needed for the total nominal revenues to approximately equal the total nominal expenses for the 2004-2008 time frame. For purposes of our analysis, we have considered three scenarios with varying tip fees for MSW and construction and demolition materials. These scenarios reflect different options to generate adequate revenues to cover the projected expenses. The calculated tip fees have been rounded to the nearest dollar. The table below depicts the results.

Table 5-6

RECOMMENDED TIP FEE ADJUSTMENT ANALYSIS

Tip Fees	Scenario 1	Scenario 2	Scenario 3
MSW	\$32.00	\$26.00	\$28.00
C&D	\$13.00	\$25.00	\$22.00
Other Materials	Present rates	Present rates	Present rates

Because of concerns associated with creating incentives for haulers to mix MSW with C&D, the above analysis offers options as related to the fee differential between the MSW and C&D rates. Until the City's C&D recovery program evolves and these materials are primarily landfilled, we recommend that the differential between the two rates be minimal. Thus, an MSW tip fee of \$26.00 and C&D tip fee of \$25.00 is recommended for implementation in 2004.

To put the recommended tip fees in context, provided below is a table depicting the reported tip fees for other landfills in the region.

TABLE 5-7

LANDFILL TIP FEES¹ Benchmark Analysis

Landfill	Annual Quantities Received (in Tons)	Public or Privately Owned	Tip Fees per Ton	
			MSW	C&D
Brookings Regional Landfill Brookings, South Dakota	32,000 (2002)	Public	\$33	\$16.50
Brown County Landfill Aberdeen, South Dakota	34,000 MSW 6,000 C&D (2002)	Public	\$35	\$16.00 \$10 for heavy debris (i.e., concrete, rocks, and dirt)
Vermillion Landfill Vermillion, South Dakota	26,500 (2002)	Public	Resid: \$39.00 Comm: \$36.00	\$36.00

TABLE 5-7
LANDFILL TIP FEES¹
Benchmark Analysis

Landfill	Annual Quantities Received (in Tons)	Public or Privately Owned	Tip Fees per Ton	
			MSW	C&D
Mitchell Landfill ² Mitchell, South Dakota	33,000 (2002)	Public	\$30.00	\$20.00
Nobles County Sanitary Landfill Rushmore, Minnesota	13,000 (2002)	Private	\$37.00 (\$11.00/cubic yd)	\$32.00 (\$9.60/cubic yd)
Sioux City Landfill Sioux City, Iowa	39,872 (2001)	Public	Resid: \$26.13 Comm: \$33.25	Same as MSW
LP Gill Landfill Jackson, Nebraska	177,339 (2002)	Private	\$27.00	\$27.00
Notes: ¹ Based on discussions with facility representatives or reported directly by entity. ² The City of Mitchell is building a new landfill to be open in January 2004. At that time tip fees for MSW and C&D will both be \$36.00.				

As reflected above, increasing the tipping fee for MSW to \$26.00 per ton would place the Sioux Falls MSW tipping fee in the reported range of \$26 to \$39 per ton of MSW for other landfills in the region.