Gallatin Solid Waste Management District











ANNUAL REPORT FISCAL YEAR JULY 1, 2009-JUNE 30, 2010

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Executive Summary



Let me introduce myself. I accepted the District Manager position in August of 2009. I have extensive experience in solid waste management systems including landfills and solid waste districts. My previous position was Public Works Services Supervisor for the Volusia County Public Works Department in Volusia County, Florida, where I worked as an Operations Manager for a large landfill and transfer station. Since accepting this new position, I have been busy with the daily activities and long-range strategic planning of the District's operations.

On behalf of the Gallatin Solid Waste Management District, I am pleased to offer this annual report which serves as an important management tool to measure performance of our operations. This information allows the District to fully report expenditures, projects and improvements, District operational changes and financial statements for the fiscal year 2009-2010. The District is committed to achieving a high level of efficiency for waste management in Gallatin County and the surrounding communities. The District receives waste from Gallatin, Madison, and Jefferson Counties, and Yellowstone National Park.

This year has been a continuation of the District's efforts on several fronts. The Logan Landfill received 98,608 tons of solid waste in FY '09. A slowing in the local economy was evident in the volumes of waste at the Logan Landfill. Total tonnage accepted at the Logan Landfill for FY '09 was lower than estimated compared to the previous year of 108,918 tons. However, revenues remained strong and the financial status of the District is sound and solvent moving into the future.

The District Board of Directors continues to work hard on issues related to long-range planning and sustainability for the District. Purchasing additional land for expansion became a reality on December 31, 2009 when the District purchased the Logan Springs Ranch for \$1,650,000. It contains 694.50 acres and lies adjacent to the Logan Landfill. Ongoing discussions regarding the new land involve the possibility of a land swap with State lands, or working with DEQ to permit the ranch for expansion of the Logan Landfill. Until then, the District leases the land to a rancher for grazing.

The remainder of this report offers additional details on the District's activities and its areas of focus. Information in this report covers July 1, 2009 to June 30, 2010, Fiscal Year 2010.

Sincerely,

Mat D. Bay

Martin Bey, District Manager

Gallatin Solid Waste Management District

The Gallatin Solid Waste Management District was created by the County Commission in May of 2003, by Resolution #2003-054. In June of 2003, the Commission formed the District Board by Resolution #2003-060. It expanded the District in 2007 by Resolution #2007-119.

Currently, the Board consists of representatives from the Cities of Three Forks, Manhattan, Belgrade, and Bozeman. Two other seats are occupied by Members-at-large, and the remaining seat is occupied by one County commissioner.

Gallatin Solid Waste Management Board Members

Dave Hanson, City of Three Forks; Phil Ideson, Member at Large; Clark Johnson, City of Manhattan; Steven Johnson, City of Bozeman; Dan Klemann, Member at Large; Kevin Moriarty, City of Belgrade; Stephen White, County Commissioner



Mission Statement

The purpose of the Gallatin Solid Waste Management District is: to provide constituents with cost efficient solid waste services; to provide for the balanced consideration and representation of the diverse views and issues regarding solid waste management; to advocate for the health, safety and welfare of the residents; to manage the processing, reclaiming, storing, transporting, or disposing of waste in ways that protect the ecology of lands in the District; to identify goals, policies and procedures that will aid local jurisdictions in meeting solid waste reduction and recycling goals.



Administration

Daily operations of the Gallatin Solid Waste Management District are administered by professional staff, headquartered at the Logan Landfill.

Gallatin Solid Waste Management District 10585 Two Dog Road P.O. Box 461 Three Forks, Montana 59752 406.284.4029 Fax: 406.582.2491

Web Site

http://www.gallatin.mt.gov/Public Documents/gallatincomt gswmd/HP GSWMD

Administration

Martin Bey, District Manager Dawn Chretien, Office Manager/Scales Supervisor Susan Dellinger, Accountant Jim Simon, Site Foreman/ Lead Operator Corey Landreth, Shop Foreman/ Lead Mechanic

Gallatin Solid Waste Management District Organizational Chart





Operations at the Logan Landfill District Tonnages

Total tonnage disposed of at the Logan Landfill between July 1, 2009 and June 30, 2010 was 98,608 tons. The four primary components of the waste stream included approximately 69,985 tons (71%) of municipal solid waste, of which, 64,567 tons (93%) were disposed of by commercial carriers and 5,417tons (7%) by the general public. Light construction waste disposed of totaled 6,405 tons (6%), of which, commercial carriers disposed of approximately 5,834 tons (92%) and 571 tons (8%) by the general public. Heavy construction tonnage totaled 331(<1%) tons, of which, 315 tons (95%) was from commercial carriers and 16 tons (5%) from the general public. Class IV totaled 20,056 tons (20%), of which, 18,594 tons (93%) from commercial carriers and 1,480 tons (7%) from the general public. The remainder of the components of miscellaneous materials disposed of totaled 3,381 tons or 3% of the total waste stream. This fiscal year tonnages were down 10,311 tons or 9% from the previous fiscal year.



District Revenues

The Revenue from the tipping fees at the Logan Landfill between July 1, 2009, and June 30, 2010, was \$3,282,746. The four primary components of the revenue collected were from municipal solid waste at \$1,920,716 (59%), of which, \$1,743,848 (91%) was from commercial carriers and \$176,868 (9%) from the general public. Light construction totaled \$307,576 (9%), of which, \$280,056 (91%) was from commercial carriers and \$27,520 (9%) from the general public. Heavy construction totaled \$19,217 (1%), of which, \$18,265 (95%) came from commercial carriers and \$952 (5%) from the general public. Class IV totaled \$962,776 (29%), of which, \$892,099 (93%) was from commercial carriers and \$70,677 (7%) from the general public. The remainder of the revenue collected from miscellaneous fees was approximately \$73,085 (2%) of the wastestream. This year's revenues compared to the last fiscal year were down 13 percent equal to \$414,487.



Five Year Revenue by Month Comparison

Performance at the Logan Landfill

Landfill performance is determined by engineering methods which provide information used for long-term planning, and operational efficiency. The known capacity in cubic yards above the landfill liner is determined by the design of the collective landfill cells. Tonnage of waste in the cells and the volume of soil used can be combined with periodic survey information to determine how much of a cell has been utilized over a period of time. The efficiency is usually reported in terms of compaction of waste, ratios of waste to soil, or volume of air space used per ton of waste placed. These values can be compared to historical site data and industry standards to gauge operational performance and efficiency.

A topographic survey of the Logan Landfill site was conducted on June 28, 2010. This model was then compared to previous topographic surveys to evaluate the landfill performance over the period. Table 1 shows the landfill performance calculated with GPS surveys over each period and the total to date since the District assumed operations of the landfill.

Aerial surveys were conducted on July 1, 2009, and June 30, 2010. The aerial surveys allowed us to calibrate the bank cubic yardage (CY) per scraper load used for daily and intermediate cover operations rather than using an estimate. The aerial survey showed an excavation quantity of 24,185 bank CY removed from the Phase 4 area via 1,778 scraper loads, this results in a scraper volume of 13.6 bank CY/load. We previously used a volume of 18 bank CY/load for the soil volume accounting beginning 8/13/2008 to current. This results in a 24% decrease in soil usage starting 8/13/2008 to the current time period based on this calibration. The 24% decrease in soil usage was applied to the appropriate time periods and the performance analysis for the time periods were updated. Table 1 is adjusted to reflect the calibrated soil quantities as calculated with the aerial survey.

Table 1 shows the landfill performance over the last eight periods and the average to date. The overall space utilization over the last period as measured by the volume per ton ratio was 1.45 CY/Ton. This was 12% better space utilization than the last time period. This is outstanding overall disposal performance. The overall performance of the landfill is measured by the volume per ton ratio. The two components which directly impact the overall landfill performance are the compacted waste density and the waste-to-soil ratio.

The site achieved a compacted waste density of 1,663 pounds per cubic yard over the last period. This is continued excellent compaction. The industry standard for compacted waste density at landfills which operate 826-equivalent compactors is 1,200 LB/CY.

The District staff is far exceeding that metric with the operation. This high compaction is due to dedicated and consistent application of compaction techniques in conjunction with quality equipment and operators.

Table 1

Gallatin County Landfill

GPS Method

Municipal Solid Waste Cells Phase 2 & Phase 3

Performance Analysis Summary

	05/18/05-	10/16/05-	03/31/06-	11/08/06-	10/29/07-	8/12/08-	4/17/09-	11/26/09-	Total to
	10/15/05	03/30/06	11/08/06	10/29/07	8/12/08	4/16/09	11/25/09	6/28/2010	Date
Total Fill	41,836	56,005	123,015	218,970	157,620	112,656	91,484	61,328	862,914
Volume	CY								
Soil Volume	0	0	18,732 CY	38,500 CY	36,846 CY	22,310 CY	13,858 CY	10,526 CY	140,772 CY
Waste to Soil Ratio	NA	NA	5.6:1	4.7:1	3.3:1	4.05:1	5.6:1	4.83:1	5.13:1
Tonnage	28,720	43,646	77,587	116,490	84,395	62,770	55,018	42,254	510,880
Accepted	Tons								
Compacted Waste Density	1,373 LB/CY	1,559 LB/CY	1,488 LB/CY	1,291 LB/CY	1,397 LB/CY	1,390 LB/CY	1,417 LB/CY	1,663 LB/CY	1,415 LB/CY
Volume Per	1.46	1.28	1.59	1.88	1.88	1.79	1.66	1.45	1.68
Ton Ratio	CY/Ton								

The last period of landfill performance on June 28, 2010, included surveys of both Phases 2 and 3. However, Phase 3 did not receive any waste over the last time period. The overall waste-to-soil ratio for the time period was 4.83:1. This is a 15% increase in soil usage over the previous period. However, this is still excellent performance and the landfill staff are commended for the performance on soil usage as well. Staff will continue to utilize the approved alternative daily cover as often as possible in lieu of soil.

In summary, the industry standard for landfills this size is a compacted waste density of 1,200 LB/CY and a 3:1 waste-to-soil ratio, which results in an overall volume per ton performance of 2.22 CY/Ton. The overall performance measured by GPS over this last period was 35% better than standard landfill performance metrics. The landfill staff are commended for obtaining this outstanding waste density and overall landfill performance which insures the landfill life is maintained, and in this case, actually extended via excellent performance criteria. Different approaches in the daily operations of waste handling also resulted in efficiencies that reduced annual fuel consumption by over 8,446 gallons while maintaining high compaction levels. The District saved \$29,241 in maintenance of the operation from the previous year.

Table 2 shows the landfill performance calculated with the GPS method for the dates of theaerial survey for the purposes of comparison with the aerial methodology.

Table 2						
	Gallatin County Landfill					
	GP	S Method				
	Municipal Solid Was	ste Cells Phase 2 & Pha	ase 3			
	July 24, 20	009 – July 7, 2010				
	7/24/2009- 11/26/2009- Total 11/25/2009 7/7/2010 7/24/2009-7/7/2010					
Total Fill Volume	46,455 CY	65,308 CY	111, 763 CY			
Soil Volume	7,039 CY	11,202 CY	18,241 CY			
Waste to Soil Ratio	5.6:1	4.83:1	5.13:1			
Tonnage Accepted	27,926 Tons	44,989 Tons	72,915 Tons			
Compacted Waste Density	1,417 LB/CY	1,663 LB/CY	1,559 LB/CY			
Volume Per Ton Ratio	1.66 CY/Ton	1.45 CY/Ton	1.53 CY/Ton			

Table 3 compares the results of the performance analysis of the GPS method to the aerial method. It can be seen that the waste to soil ratios, the compacted waste densities, and volume per ton ratios for each method are within 2% of each other. This demonstrates that the GPS methodology used to date has been accurately calculating the performance criteria.

GPS surveys have a higher elevation accuracy (+ or -0.1 feet) than aerial surveys (+ or -1.0 feet). Either of these survey methods can only measure volumes within 2-3% so the difference between these methods in this comparison is within the error margin of the survey. Since the GPS surveys cost less to conduct and are more accurate, we recommend the District continue with this approach for long term measuring of landfill performance and capacity.

	Table 3			
	Gallatin County Landf	ill		
	GPS Method vs. Aerial Me	ethod		
Muni	cipal Solid Waste Cells Phas	e 2 & Phase 3		
	Performance Analysis Com	parison		
	July 24, 2009 – July 7, 2	010		
	GPS	Aerial		
Total Fill Volume	111,763 CY	114,245 CY		
Soil Volume	18,241 CY	18,659 CY		
Waste to Soil Ratio	5.13:1	5.12:1		
Tonnage Accepted	72,915 Tons	72,915 Tons		
Compacted Waste Density	1,559 LB/CY	1,526 LB/CY		
Volume Per Ton Ratio	1.53 CY/Ton	1.57 CY/Ton		

Aerial Survey of the Logan Landfill as of June 30, 2010





Class IV Area Performance Evaluation

The Class IV has been measured for performance since the Class IV area opened. Class IV materials are much more difficult to obtain high compaction levels because of the nature of the waste. Industry standard metrics for Class IV landfills are 750 LB/CY compacted waste density and a waste-to-soil ratio of 6:1. This results in an overall volume per ton ratio of 3.1 CY/Ton. **Table 4** shows that the landfill is exceeding industry metrics the last two time periods with the Class IV operation.

Table 4						
	Gallatin County Landfill					
	Class IV Per	formance Analysis				
4/17/2009- 11/25/2009 11/26/2009- 7/7/2010 Total						
Total Fill Volume	33,767 CY	20,768 CY	54,535 CY			
Soil Volume	3,780 CY	2,285 CY	6,065 CY			
Waste to Soil Ratio	7.93:1	8.09:1	7.99:1			
Tonnage Accepted	14,557 Tons	9,175 Tons	23,732 Tons			
Compacted Waste Density	970 LB/CY	993 LB/CY	979 LB/CY			
Volume Per Ton Ratio	2.32 CY/Ton	2.26 CY/Ton	2.30 CY/Ton			

Life Estimates

The performance data, tonnage and the Landfill Master Plan were used to estimate the remaining life of Phase 2, Phase 3 and the overall landfill. To estimate the remaining life of Phase 2 and Phase 3, the first step is to calculate the remaining air space in the two phases. The computer generated land surface model from the 6/28/2010 survey was compared to the interim fill plan for Phase 2 and Phase 3 to determine the remaining air space.

In order to estimate the remaining life of Phase 2 and Phase 3, we needed to project the waste generation throughout the remaining life of this cell. The estimated annual tonnage of 116,000 tons per year for the last several years for the facility was used for calculations. Over the last two years, the tonnage at the facility has dropped noticeably. This drop in waste volume is effectively increasing the life of the landfill. Over the last couple years, the site has been averaging closer to 105,000 tons per year. If the tonnage increases again in the future, we will adjust the life estimates appropriately. For now utilizing 105,000 tons per year more accurately represents the remaining site life.

The total air space includes the final cover for the portion of Phase 2 and Phase 3 fill which reaches the final proposed elevations, so this is subtracted out of the air space available for waste and the daily or intermediate soil cover. The last six measurement periods are the best estimate of how much daily and intermediate cover will be utilized at the site. However, it is critical the District staff continue to use alternative daily cover (ADC) to the extent possible in order to minimize the air space usage of the landfill. It's estimated that the landfill will be able to utilize soil long term at a 4:1 waste to soil ratio. The estimated daily and intermediate soil cover usage is then subtracted from the available air space to determine the volume available for waste.

The last variable to determine is the compacted waste density. The landfill averaged 1,663 LB/CY over the last period. As stated earlier, the industry standard for compacted waste density for a landfill of this size with equivalent compactor equipment is 1,200 LB/CY. However, it appears from the last five periods that the District consistently achieves waste densities of 1,300 LB/CY and above. The landfill staff does an excellent job of placing the waste in thin lifts and compacting the waste with multiple equipment passes in both directions. For the basis of these life estimates, we used a 1,350 LB/CY waste density. The landfill staff has proven that they can achieve this density consistently.

The life estimate analysis is summarized in **Table 5**. The estimates assume there will be no large "one-time" disposal projects. An example would be a large hail storm or earthquake generating a great deal of construction and demolition wastes. The capacity estimate also assumes that the District will not expand its service area during the remaining landfill life. If the District does expand its service area in the future, the life estimate would need to be

adjusted. The ultimate life of the site will be highly dependent on the waste tonnage received at the site and the landfill performance. If the tonnage increases over this estimate or the landfill performance drops, the District will have less life than predicted. The life estimates in **Table 5** are based on 105,000 tons/year waste accepted, a 1,350 lb/CY compacted waste density, 4:1 soil-to-waste ratio and an overall volume per ton ratio of 1.85 CY/Ton.

Table 5			
Gallatin County Landfill			
Life Projection Estimates (August 2010)			
Phase 2 Life	0.8 years		
Phase 3 Life	5.7 years		
Phase 4 Life	7.2 years		
Class IV Area (Equivalent Life on Overall Tonnage)	0.4 years		
Total Life	14.1 years		

Closure Work at the Logan Landfill

The total Class II and Class IV landfill area is 53 acres. The County closed approximately three acres of the landfill in 1996. The remaining 50 acres of waste area will require closure over the remaining life of the site. The Montana DEQ has approved an alternative final cover design which relies on native soil materials for the cover system rather than synthetic materials. This alternative cover system will be used for the remainder of the closure projects at the landfill.

The final cover design is a four-foot thick soil cover system that includes the following sections from bottom to top:

- ➡ Final contouring of the site making sure that all areas are properly sloped, graded and intermediate cover per the final contour plan.
- ↓ Installation of twelve inches of native sand material.
- Twenty-four inches of select fine-grained native silt soil material placed as the evapotranspiration layer for the cover. This material will be selectively excavated onsite with scrapers and pushed into place with low ground pressure equipment likely D-7 dozers or smaller.

- Twelve inches of native sand material of which the top six inches will be topsoil material amended with compost or other fertilizer.
- Vegetating the site with a seed and fertilizer mixture as outlined in the closure plan. It is assumed that the seed mixture will be tilled in using a tractor and an end wheel press drill or another acceptable seeder. In areas which are too steep for drill seeding, hydroseeding techniques will be used.
- The total estimated cost per acre for installing the final cover system is documented in Table 6.

Table 6 Gallatin County Landfill Estimated Closure Costs Per Acre Alternative Final Cover System Updated August 2010				
Activity	Quantity	Unit	Cost/Unit	Cost
Mobilization/Bonding/Insurance	1	LS	\$3,000.00	\$3,000.00
Subgrade Preparation	800	CY	\$4.00	\$3,200.00
12" Capillary Sand Layer	1,600	CY	\$3.00	\$4,800.00
24" ET Silt Layer	3,200	CY	\$4.00	\$12,800.00
12" Sand Erosion & Topsoil Layer	1,600	CY	\$3.00	\$4,800.00
Drainage Controls	1	LS	\$2,000.00	\$2,000.00
Seed, Fertilizer, Mulch	1	AC	\$1,000.00	\$1,000.00
Gas Venting System	1	AC	\$5,000.00	\$5,000.00
Survey/Certification	1	AC	\$2,000.00	\$2,000.00
Engineering/QA/Inspection	1	LS	\$8,000.00	\$8,000.00
Closure Cost Per Acre \$46,600.00				

Closure Costs & Financial Assurance Based on Largest Open Area Logan Landfill

The financial assurance is based on the largest area open during the life of the site. Under the existing Master Plan, the currently open area of 26.5 acres is the largest area planned to be open during the life of the site. The estimated closure costs of this portion of the site are depicted in **Table 7.** The estimated closure cost is \$1,357,900.

Table 7 Gallatin County Landfill Estimated Closure Costs - Closure of Largest Open Area Updated August 2010				
Activity	Quantity	Unit	Cost/Unit	Cost
Alternative Final Cover System	26.5	AC	\$46,600.00	\$1,234,900
10% Contingency				\$123,000
Cost to Close Maximum Area	26.5	AC		\$1,357,900

Post-Closure Costs at the Logan Landfill

In regard to the post-closure costs, the regulations require each landfill owner to monitor for methane, monitor the groundwater, have an independent Professional Engineer conduct an annual inspection, update the closure and post-closure costs annually, and maintain the cap and drainage structures for settlement, erosion, cracking or any other situation that may jeopardize the integrity of the cap or drainage controls.

The estimated costs for these items for the 30-year post-closure period are summarized in **Table 8.** To calculate these costs, the following assumptions were used:

- The annual costs for groundwater and methane monitoring are based on the current annual monitoring costs.
- The leachate collection will require periodic inspections, periodic pumping and minor maintenance. This is estimated to cost approximately \$500 per year.
- Once annually, an independent third party Professional Engineer will inspect the site for any non-compliance or maintenance issues including the integrity of the cap, drainage, fencing, etc. The Engineer will correspondingly write a report summarizing his/her findings and recommendations. The Engineer will also prepare an updated cost estimate indicating the cost to close the site along with the cost for the 30-year postclosure monitoring, etc. These costs will correspondingly be sent to the appropriate officials. The estimate assumes 20 hours of labor at \$95 per hour and miscellaneous word processing and expenses.

It is necessary for the facility to maintain the integrity of the cap and drainage controls. It is difficult to estimate what the annual cost to conduct this work might be several years from now. For this estimate it was assumed that once per year a contractor will provide 16 hours of equipment time to haul in and blade soil in a settled area(s) at \$250 per hour and revegetate areas for \$500.

Table 8 Gallatin County Landfill Post-Closure Care Cost Estimate August 2010			
Item	Annual Cost	Total 30 Year Cost	
Groundwater & Methane Monitoring	\$15,000	\$450,000	
Leachate Collection System Operation & Maintenance.	\$500	\$15,000	
Annual Engineering Inspection	\$2,000	\$60,000	
Periodic Cap and Stormwater Maintenance	\$4,500	\$135,000	
Total	\$22,000	\$660,000	

Financial Assurance Update Based on Overall Site Life Approach at the Logan Landfill

Three years ago the District elected to utilize the overall site life approach to determine the financial assurance obligation. The Montana Department of Environmental Quality has agreed with the approach in correspondence. The balance in the closure/post-closure reserve is current as of the end of the fiscal year. **Table 9** calculates the cost per ton to meet financial assurance requirements under the overall site method.

Table 9 Gallatin County Landfill Financial Assurance Calculation			
August 2010			
Overall Site Closure Costs	\$2,563,000		
Post Closure Costs	\$660,000		
Total Obligation	\$3,223,000		
Closure/Post Closure Reserve (July 2010)	\$-1,989,600		

Amount to Finance Over Demaining Site Life	¢1 777 400
Amount to Finance Over Remaining Site Life	\$1,233,400
_	
Total Romaining Tonnaga	1.470.000 tong
Total Remaining Tonnage	1,470,000 10115
Cost Per Ton to meet Closure Post Closure Financial Assurance	\$0.84/ton
Cost i ci i fon to incet closure i ost closure i maneiar Assurance	φ 0.0 τ/ 1011
Poquiroments Under Overall Site Method	
Requirements onder Overan site Method	

Environmental Compliance

The District meets Federal and State requirements for environmental and safety monitoring at the Logan Landfill. Primary testing programs require the testing of landfill gas, groundwater and water discharges throughout the life of the landfill. Test results for the year indicated that the facility is in compliance for these testing requirements.

Historical testing began at the landfill site in 1994. Initial tests indicated trace amounts of tetrachloroethene (PCE) in the immediate groundwater. Part of the groundwater monitoring effort includes monitoring the results from the Phase 1 Pilot Groundwater Treatment Project which was instituted as part of the Corrective Measures Assessment (CMA) for the facility in 2007. The CMA was undertaken to develop alternatives to remediate the potential pollutants. The pilot program showed the PCE concentration in the well has dropped from a pre-remedial level of more than 9 micrograms per liter to about 5 micrograms per liter. Concentrations of PCE have remained the same or risen slightly in nearby, untreated wells. The Department of Environmental Quality has allowed five years to evaluate the effectiveness of the treatment. The five-year period ends in the fall of 2012.



In August of 2009, the landfill endured a storm event that overcame our stormwater ditches and flooded the future Cell 3 area. The event determined our stormwater system was incomplete and not in compliance with our Montana Pollution Discharge Elimination System Plan. An engineered and state approved stormwater run off/run on ditch and culvert system is now installed and functioning properly. Plans are also in the works to expand the existing leachate pond in order to meet the demand from future landfill cells.

Projects and Improvements

The District continued to improve sites at the Logan Landfill, the Bozeman Convenience Site, and the Recycle operation. The Operations and Maintenance Plan (O&M) for the Landfill was updated and approved by the Department of Environmental Quality (DEQ) this fiscal year.

The Department of Environmental Quality approved construction for the Class IV Unit lateral expansion.



Bozeman Convenience Site Projects and Improvements

The District continued to upgrade the Bozeman Convenience site this fiscal year. It added a new scale, scale pad with handrails and a walkway for \$43,640. The old scalehouse was replaced with a retrofitted scalehouse from the old administration office at the Logan Landfill. The new scalehouse upgrade included a water well, a septic holding tank and a bathroom for staff.

In June of 2010, a stationary compactor was purchased for \$13,440 along with two 40-yard compactor receiver containers for \$15,470. The machine compacts the municipal solid waste for better efficiency of airspace in the receiver containers hauled to the Logan Landfill for disposal. The stationary compactor allowed us to get rid of six front load containers. Through June of 2010, the District paid \$3,204 per month to pick-up the front load containers. In the coming fiscal year, it's anticipated the District will save \$2,254 per month or a 71% savings on hauling in the next fiscal year.

Total site improvements other than buildings and equipment cost the District \$40,855.90 this fiscal year.

Projects and Improvements at the Logan Landfill

The District purchased a security system for the Logan Landfill administration building, shop, scalehouse, and front gate at a cost of \$15,286. Total site improvements not including land or buildings totaled \$45,988. Building more litter fences and working on more perimeter fencing are a priority.

The District continued to add to its equipment inventory this fiscal year. The District traded in its CAT 963B with a trade-in value of \$21,500, for a new CAT 963D for \$265,293. Other miscellaneous equipment purchased throughout the year included a used 2005 Gehl Skidsteer with an auger and a forklift, Tundra pickup topper, snowplow attachment with a salt and sand

spreader.





Recycling and Waste Diversion

Goals of the program are to provide a higher level of opportunity for recycling to the public; service the sites in a timelier manner; keep the sites cleaner and; allow the District and Gallatin County residents to have better control of costs and revenues related to County recycling.

The revenue from recyclable commodities in the waste stream with existing markets dropped from the previous year from \$276,179 in FY 2009 to \$187,826, a loss of \$88,353 of anticipated revenue. Plastic bottles, tin, aluminum cans, news print, magazines, and cardboard are the commodities targeted for recycling at the sites. The Recycle Tonnage Chart compares this fiscal year with the previous. Beginning April 1, 2010, the District changed its management approach concerning recycling. \$74 per ton will now be paid to haul and process county-wide recycling. **Recycle Tonnage**

Roll-off	FY '09	FY '10
Program	(tons)	(tons)
Paper	1,528.54	1,422.80
Plastic	156.57	182.93
Tin/aluminum	113.03	113.49
Cardboard	1,106.70	1,148.04
TOTALS	2,904.84	2,867.26

Other waste diversion efforts by the District include metal diversion and recycling at the Logan Landfill of oil, antifreeze, auto batteries, propane tanks, pesticide containers, and bear spray canisters. The District collected \$29,543 from scrap metal and \$2,268 dollars from automobile

batteries.



The District added two new recycling sites in 2010. We currently maintain 16 locations spread throughout Gallatin County.

The Recycling Coordinator position was eliminated June 30, 2010, creating a savings of \$35,642.15. Site maintenance of the locations became contracted out to our recycling processor as part of the \$74 per ton hauling and processing fee.

Recycle Outreach

Management coordinated outreach activities with staff.

- November 15, 2009, America Recycles Day. Staff visited Three Forks and Manhattan Elementary and High Schools.
- January 12, 2010, Boy Scouts Troop #650 from Belgrade took a tour of the landfill.
 Staff gave a presentation on recycling for home and schools.
- February 12, 13, 14, 2010, Wild West Winterfest fair at the Gallatin County Fairgrounds. Staff presented information on the District's recycling program.
- April 22, 2010, Earth Day. Held a free one-day E-waste event at the Gallatin County Fairgrounds for the general public. Coordinated a glass collection event with the City of Bozeman and the Zero Waste Coalition at Bogart Park.









E-Waste Collection

Late in the fiscal year, the Logan Landfill started to accept e-waste daily. The District purchased a 48- foot container for \$3,900 to store the collected e-waste until it ships to the recycler. The scale tipping fees for e-waste disposal of collected accrued 31.48 tons and collected \$1,642.

The Gallatin Solid Waste District held an E-Waste event on April 22, 2010, Earth Day, at the Gallatin County Fairgrounds. We collected 14.35 tons (26 pallets) of recyclable e-waste materials. We started working with UNICOR Recycling Business Group, which is a division of the Federal Bureau of Prisons. They pay for the freight to haul the e-waste to their recycling facilities and do not charge for the demanufacture and processing.



Household Hazardous Waste Collection

The District's Bozeman Convenience Site collects household hazardous waste the second Saturday of each month from 9 a.m. until noon for the small household generators. It is free to the public. Commercial generators may schedule a disposal for a fee. This fiscal year the District spent \$4,994 properly disposing of household hazardous waste for the citizens of Gallatin County.



Financial Summary

The Gallatin Solid Waste District operates as an enterprise fund. No tax revenues are used for District operations or capital improvements. Revenues are generated by tipping fees, the sale of recycled commodities, and interest earnings. Total District revenues for the year were \$3,650,998. Tipping fees from Logan and the Bozeman Convenience Site accounted for \$3,372,897. Metal salvage at the landfill totaled \$29,543. Salvage of battery cores took in \$2,268 from both sites. Recycling program commodities generated \$187,826. Interest earnings for the year totaled \$71,982, down \$50,949 from the previous fiscal year (\$122,931). The District plans to keep a tight budget in the next fiscal year.

The equipment reserve fund is used to pay cash for future equipment replacement. The fund balance at the end of the year totaled \$1,294,167. Operational cash at the end of the year was \$963,720 for the Logan Landfill, -\$315,599 for the Bozeman Convenience Site (since assuming operations on July 1, 2008), and the Recycling program \$-702,759 (since startup on April 1, 2008). Fixed assets were \$7,207,089. The balance at the end of the year for the total District assets totaled \$12,170,225 an increase of \$1,054,586 from the previous fiscal year.

Required financial assurance funding for landfill closure and post closure cost account balance at the end of the year was \$1,989,567. Total long-term liabilities at the end of the year totaled \$3,785,868. New debt taken on by the District during the year included the purchase of the Logan Springs Ranch. To fund the land purchase the District used the land reserve fund \$400,000, and the loan from the Montana State Board of Investments Intercap Revolving Program for \$1,250,000 for a total of \$1,650,000. The purchase of the adjacent land is for future landfill expansion purposes.



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Gallatin Solid Waste District Long Range Strategic Plan

The District drafted a 13-year Cash Flow Budget Projection for replacement of equipment, future construction projects based on the Logan Landfill Master Plan, and future closures of Phases 2 and 3. The plan is reviewed during each budget year.

As of June 30, 2010:

CASH FLOW BUDGET											-	_									- 7		
1% Increase	%	2007	-	2008	1	2009		2010	1 3	2011	-	2012	20	13	2014		2015	1 2	2016	2017		2018	2019
Tonnage	1%	115,000		115.868	-	108,743	1	98,611		110,753	-	111.861	1	12,980	114,11	0	116,392	-	117,556	118	3.732	119,919	121.11
\$/Ton (ave)											-							_			-		
CAPITAL OUTLAY																							
Equipment Reserve Fund			5	425.000	\$	425,000	\$	615,000	5	452,500	\$	420.000	5 42	0.000	\$ 420,000	S	420,000	5	420,000	\$ 420	000		
year end balance			\$	425,000	\$	879,167	\$	1,294,167	5	909,063	5	1,115,063	5 91	7.063	\$ 1,009,063	S	826,063	5	423,563	\$ 623	563		
Land (Logan springs)			-		\$		\$	1,250,000										-	-				
Buildings (shop, admin)		1	\$	631.000	-		S	95.000	S	85.000	s	15.000			1	1			-	1			
Improvments on land		1	\$	30,000	\$	59,257	\$	135,000	5	20,000	\$	250,000	5 2	0.000	\$ 20,000	S	20,000	5	20,000				
Equipment		1	1	- COLOR	-				1	tiele con					- Caller				Teller				
Compactor (826G)		1	-		-			-		\$455.000												(\$ 600.00
Compactor (826H)		1					1								K			s	600.000		-		
Scraper			\$	352.009						jî			\$ 60	0.000				-					
Dozer			\$	509,507		1.1.1							1			\$	500,000						
Front Loader			1	- Accession	\$	145,027				1.1					\$ 275,000			5	175,000			-	
963 track		1			-		\$	350,000	1	11								-		1.000			
Grader		1																		\$ 200.	000		
Water truck											\$	85.000					-		- 10 A				
pickup (Toy)			-		s	25,000	s	-	-		-					+		s	35,000		-		
pickup (3/4 Chev)			-		-											S	35.000						
pickup (snow plow)			-				s			-					5 35 000	1					-		
Roll-Off Truck			-		-				S	45,000						-					-	\$ 225,000	
Computers			-		-		\$				S	10,000				-		_					
Copier		1	-				5	10,000	-			/ 410000				1		-			-		
Pickup (used)			-		s	12 000	Ť				S	15 000			_			-	-				
admin vehicle			1		s	20,000			-		-	101000	-					-		\$ 20	000		
service truck (used)		1	s		5	30,000					S	40.000				-		-					\$ 45.00
vac-truck (used)			1		ŝ	60,000	-	_	-		-		-	-	_	-		-			-		
hydroseeder (ADC)			-	-	s	45 000				-			1	-		s	50,000			-			
Bzn Site Stationery Compactor			-		*	10,000		\$100.000					1	-		Ť	00,000	_		-	-		
Emergency Generator Scale			-		-		-	\$100,000	1		s	25 000	1	-		-		-		-	-		
E-Waste Container-Bzn Site			-	-	-			-	-		ŝ	5,000	-	-		-		-	-		-		
Bzn Site Skid Steer			-		-		-	\$20.000			*	0,000	-	-		s	35,000	-		-	-		
Waste Oil Containers - 2			-		-		-	\$5,000			-		-	-		Ť	00,000	\$	6 000		-		
other (generator tooling)			-		\$	45 500	-	40,000	-				1	-		-		*	0,000		-		
Bozeman(scale containers)			-		\$	49 000	\$	38 000	1		-		1	-		-		-	-		-		
Bzn Boll-off containers		-	-		-		-	50,000	5	36 000	s	10,000	-			-		-			-		
recycling containers	-		5	60.000	-		\$	60.000	s	6.000	S	24,000	S 1	8.000	\$ 18,000	S	18.000	\$	6.500				
subtotal			S	1.582.516	5	490,784	5	2.063.000	5	647.000	S	479.000	5 63	8.000	\$ 348,000	S	658.000	S	842.500	\$ 220	000	\$ 225.000	\$ 645.00
CONSTRUCTION TASKS	-		-	1,002,010		400,104	*	2,000,000	-	0.41,000	*	410,000		0,000			000,000	-	0.42,000	·			
Cell 3 construction		\$972.000	5		-				-		1				_						-		
Cell 4 construction			1	-	-						-		1			S	800.000	S	800.008		-		
Closure Construction (4)	-		1		-						-		1			Ť		-	- 301000	-	-	-	
Cell 2 closure	-		1		-				1		s	500.000	\$ 75	0.000	\$ 750.000			-					
Cell 3 closure			-		-					-		223,000	1 10		00,000	1				\$ 650	000	\$ 650,000	
Class IV closure	-	-	-		-						-		\$ 30	0 000	\$ 300.000	2 (300.000	-		- 000,			
Cell 4 closure			1	-	-		-		1	-	-			0,000	+ 100,00	1	223,000	-	-	-	-		
Corrective Measures			\$	125.000							-		5 1	25.000				-		-			
Subtotal			is	125.000	s		s		S		s	500.000	5117	5 000	\$ 1.050.000	S	1,100,000	s	800.000	\$ 650	000	\$ 650.000	5
TOTAL		-	15	1 707 516	5	490 784	5	2 063 000	\$	647 000	e	979.000	\$ 1.81	3,000	\$ 1398.000	N C	1,758,000	5	642 500	\$ 870	000	5 875 000	5 645 00

Cash Flow Budget 2007-2019

Gallatin Solid Waste Management District Profit and Loss as of July 1, 2009 through June 30, 2010

	Jul '09 - Jun 10
Ordinary Income/Expense	
Income	
Sale of Fixed Assets	-13,428.43
E-Waste Donations	200.00
Charges for services-Logan	
3430-42 · Disposal charge	3,281,447.15
3430-45 ⋅ Sale of junk or salvage	31,448.51
Total Charges for services-Logan	3,312,895.66
Charges for Services-Bozeman	
Disposal Charge	91,449.92
Sale of Junk or Salvage	72.00
Total Charges for Services-Bozeman	91,521.92
Recycling Revenue	
Sale of Paper	69,418.27
Sale of Plastic	11,510.15
Sale of Aluminum	31,932.50
Sale of Steel	6,284.41
Sale of Cardboard	68,681.09
Total Recycling Revenue	187,826.42
3710-10 · Interest earnings	71,982.34
Total Income	3,650,997.91
Cost of Goods Sold	
80% Compost due to City	12,418.40
Transport from Bzn Conv Site	
Rolloff Containers	49,198.03
Front Load Containers	35,665.43
Logan Landfill Tipping Fees	15,171.37
Total Transport from Bzn Conv Site	100,034.83
357 · Transport Recycling Materials	
Hauling Rolloffs	108,034.60
Hauling Cardboard	88,513.31
Total 357 · Transport Recycling Materials	196,547.91
Recycle Processing Costs	
Paper	43,423.80
Plastic	6,471.00
Aluminum	14,065.00
Steel	2,859.50

Cardboard	25,492.80
Recycle Processing Costs - Other	57,007.38
Total Recycle Processing Costs	149,319.48
Total COGS	458,320.62
Gross Profit	3,192,677.29
Expense	
Tax Assessments	
540 · Tax Assessments	0.00
Total Tax Assessments	0.00
Personnel	
110 · Salaries & wages- permanent	571,201.61
112 · Salaries & wages- temporary	600.00
120 · Overtime- permanent	15,444.96
140 · Employer contributions	209,509.39
Total Personnel	796,755.96
Maintenance	
230 · Repairs & maintenance supplies	56,405.65
232 · Tires	2,802.62
360 · General repair & maint by other	18,669.09
361 · Automotive repairs & maint	9,585.46
362 · Office equip repair & maint	5,793.59
Total Maintenance	93,256.41
235 · Small Tools	17 837 27
Total Small Tools	17 837 27
	11,001.21
Utilities	
341 · Electric Utilities	11,117.30
344 · Propane	18,021.96
345 · Telephone	18,309.68
346 · Cell phones	1,930.66
Total Utilities	49,379.60
Supplies	
221 · Software	1,157.95
210 · Office supplies	4,487.84
220 · Operating supplies	124,125.64
224 · Food	603.31
226 · Clothing & uniforms	1,924.41
Total Supplies	132,299.15

Insurance	
510 · Property insurance	20,077.70
513 · Liability Insurance Allocated	12,510.00
Total Insurance	32,587.70
Fuel	
231 · Gas, oil, fuel, grease	101,816.40
Total Fuel	101,816.40
Postage	
312 - Postage	1 505 16
Total Postage	1,505.16
	1,000.10
Printing & duplicating	
320 · Printing & duplicating	1,185.64
Total Printing & duplicating	1,185.64
Advertising	
331 · Publications legal notices	350.00
337 · Advertising	8,435.15
Total Advertising	8,785.15
Traval	
	672.64
Total Travel	673.61
	010.01
Training	
380 · Training	
Total Training	300.00
Outside Services	
350 · Professional services	137,361.20
Total Outside Services	137,361.20
Licenses	
570 Liconso foos	52 662 60
Total Licenses	52,662.60
	52,002.00
Rent	
530 · Rent	40,470.50
Total Rent	40,470.50
Service charges	
630 · Service charges	14.87

Total Service charges	14.87
Administrative fixed costs	
590 · Administrative costs	56,649.00
Total Administrative fixed costs	56,649.00
	,
Closure/Post Closure	
580 · Closure/post closure costs	131,360.92
Total Closure/Post Closure	131,360.92
Loan Interest Payments	
620 · Loan Interest	123,364.70
Total Loan Interest Payments	123,364.70
Depreciation	
830 · Depreciation	901,996.71
Total Depreciation	901,996.71
Total Expense	2,680,262.55
Net Ordinary Income	512,414.74
Other Income/Expense	
Other Expense	
Loan payments	
610 · Principal	867,999.68
615 · Principal Contra	-867,999.68
Total Loan payments	0.00
Capital improvements	
910 · Land Purchase	1,650,835.00
915 · Land Contra	-1,650,835.00
920 · Buildings	46,889.40
925 · Buildings Contra	-46,889.40
930 · Improv other than buildings	86,844.14
935 · Improvements Contra	-86,844.14
940 · Capital exp- Machinery & equip	88,936.24
945 · Machinery & Equip Contra	-88,936.24
Total Capital improvements	0.00
Total Other Expense	0.00
Net Other Income	0.00
	512,414.74

Net Income

Gallatin Solid Waste Management District Balance Sheet as of July 1, 2009 through June 30, 2010

	Jun 30, 10
ASSETS	
Current Assets	
Checking/Savings	
Cash operational Combined	
10-1000 · Cash Operational	963,720.07
10-1005 · Cash Operational-Bzn Conv Site	-315,598.77
10-1010 · Cash Operational - Recycling	-702,759.42
Total Cash operational Combined	-54,638.12
10-2000 · Restricted cash - closure costs	1,989,567.36
10-2110 · Cash - Fixed Asset Purchases	1,294,166.62
10-2130 · Cash Res for security deposit	80,500.00
10-2210 · Loan payment reserve	245,299.59
10-2220 · Loan Reserve (Future Year Pmt)	349,200.00
10-2230 · Reserve For Next Cell	550,000.00
Total Checking/Savings	4,454,095.45
Accounts Receivable	
Accounts Receivable	
12-2000 · Logan Landfill	507,772.99
12-2005 · Bozeman Convenience Site	1.267.23
	509.040.22
	303,040.22
Total Accounts Receivable	509,040.22
Total Current Assets	4,963,135.67
Fixed Assets	
Fixed assets	
18-1000 · Land	1,650,835.00
18-2000 · Buildings	237,219.89
18-2100 · Allow for depr- buildings	-72,129.96
18-4000 · Improve other than buildings	2,704,230.25
18-4100 · Allow for depr- Imp other than	-1,017,426.55
18-6000 · Machinery & equipment	3,201,852.50
18-6100 · Allow for depr - Mach & equip	-833,298.43
18-6500 · Software	6,965.00
18-6600 · Accum Depr - Software	-1,741.26
18-8000 · Construction in progress	1,295,149.18
18-8500 · Class 4 Waste Area	35,433.23
Total Fixed assets	7,207,088.85
Total Fixed Assets	7,207,088.85
TOTAL ASSETS	12,170,224.52

LIABILITIES & EQUITY

Liabilities

Current Liabilities	
Other Current Liabilities	
20-6110 · Loan Accrued Interest Payable	14,825.10
City of Bozeman	5,728.80
Allied Waste	14,673.56
Four Corners Recycling.	9,631.84
20-6120 · Wages payable	17,931.41
20-6130 · Payroll liabilities	19,162.61
20-9100 · Compensated absences payable	4,384.21
21-4000 · Security deposits payable	80,500.00
Current Portion-Long term debt	740,029.92
Total Other Current Liabilities	906,867.45
Total Current Liabilities	906,867.45
Long Term Liabilities	
23-9000 · Compensated Absences - Non-Curr	39,457.90
23-5402 · Caterpillar Financial - 826H	225,139.61
23-5403 · Caterpillar Financial - 623G	143,092.72
23-5404 · Cell 3 - SRF Loan	1,172,000.01
23-5405 · RDO - 1050J Dozer Loan	198,742.75
23-5406 · Land Loan - Board of Investment	1,250,000.00
Current Portion	-740,029.92
23-6000 · Closure cost liability	1,485,305.58
23-9500 · GASB 45 OPEB Net Obligation	12,159.60
Total Long Term Liabilities	3,785,868.25
Total Liabilities	4,692,735.70
Equity	
3000 · Net assets	1,126,924.76
3900 · Total net assets	5,838,149.32
Net Income	512,414.74
Total Equity	7,477,488.82
TOTAL LIABILITIES & EQUITY	12,170,224.52