



November 9, 2010

Financial Projections for Closure of the Jackson County Resource Recovery Facility (JCRRF)

The majority of information in this memo is taken from *Jackson County Resource Recovery Facility Annual Report for Calendar Year 2009* dated February 2010 as prepared for the Board of Public Works of Jackson County, Michigan and will be referenced as JCRRF2009. Some additional information was obtained from other sources and will be identified in each case.

During calendar year 2009 the tipping fee charged to all Municipal Solid Waste (MSW) delivered to the facility was \$91.41 per ton. The tipping fee was lowered to approximately \$75 per ton for calendar year 2010 and this will be used in the projections in this memo. In 2009 79,574 tons of MSW were delivered to the JCRRF of which 22,579 tons were sent directly to the McGill Road landfill (Waste Management) adjacent to the JCRRF. The tonnage of MSW in 2009 was very consistent with 2008. Using this tonnage for projections through 2013 would generate \$5,968,050.00 in tipping fee revenue annually.

Tipping fees at landfills in Michigan are extremely low compared to the rest of the nation. Typical rates for standard municipal landfill contracts in Michigan are on the order of \$15 per ton (or less) plus transportation costs. Since the McGill Road landfill is immediately adjacent to the JCRRF additional transportation costs are not warranted. According to JCRRF2009 the total landfill disposal costs including ash disposal was \$1,432,929.84 and the ash disposal was a cost of \$411,672.85 with an ash disposal rate of \$25.79 per ton (effective 4/13/09). Ash disposal is normally always greater than direct landfill of MSW due to special handling requirements. The county also collected revenue totaling \$456,294.46 for disposal of non-MSW items. Assuming the disposal of non-MSW items was nearly revenue neutral, the total expense for direct landfill of MSW was \$564,962.53 for 22,579 tons or \$25.02 per ton. This calculated rate for direct MSW disposal is not unusual for on-demand bypass capacity.

For purposes of this projection of MSW disposal with the JCRRF closed a landfill rate of \$25 per ton is reasonable for short-term disposal while the JCRRF bond obligation is paid. The cost of direct disposal for all 79,574 tons of MSW would be approximately \$1,989,350.00 annually. If no reserve funds are available to resolve the disposition of the JCRRF immediately then during this period the JCRRF can be mothballed in a minimal maintenance status while the county completes the payment of the bonds. The major bond obligations (if not all bonds) would be paid by May 1, 2013 under the current payment schedule. The cost of the bond obligation is shown in appendix A of this memo. A summary of the major cost obligations and revenues for 2011 through 2013 for Jackson County solid waste management are shown below.

Year	Revenue	MSW disposal	Bond Payment	Excess Revenue
2011	\$5,968,050.00	\$1,989,350.00	\$2,138,777.52	\$1,839,922.48
2012	\$5,968,050.00	\$1,989,350.00	\$2,114,586.89	\$1,864,113.11
2013	\$5,968,050.00	\$1,989,350.00	\$1,149,864.54	\$2,828,835.46

There will be some costs associated with a minimal maintenance status for the JCRRF such as maintaining the scales for enforcement of the county tipping fee and staff for monitoring the status of the building. During 2011 there will also be some costs for any outstanding bills and resolving a decision on how to handle the closed facility, therefore it would be prudent to either maintain the \$75 per ton tipping fee or consider a token decrease as a commitment to future dramatic decreases in the tipping fee. Any dollars remaining from 2011 (as these issues are resolved) could be applied to a special final disposition fund. Assuming that all concerns are resolved in 2011 on the final disposition, the tipping fee could be reduced to about \$60 per ton in 2012 and still retain about \$670,000 in excess revenue for minimal maintenance costs and contribution to the final disposition fund. The actual tipping fee in 2012 should be set based on the cost of final disposition calculated in 2011. In 2013 the tipping fee could be further reduced to \$45 per ton, which would still allow about \$440,000 in excess revenue. With the recommended tipping fees of \$75 per ton in 2011, \$60 per ton in 2012 and \$45 per ton in 2013 the total excess revenue of about \$2,950,000 can be applied to the closing and final disposition of the facility. All of the calculations above assume there are no major costs associated with the closing of the facility such as an early closure penalty, but if any major costs of this kind do exist the delay in the reduction of the county tipping provides an ample buffer.

#### Experience of other facilities:

The current circumstance facing the JCRRF parallels that of the Central Wayne County Sanitation Authority (CWCSA) in 2003 through 2005. In the fall of 2003 the operator of the facility in Dearborn Heights, Michigan went bankrupt and the facility closed. As part of the final disposition of the facility the components were auctioned and as much of the facility as possible was sold as scrap. In March 2005 the facility was demolished and the land is currently being redeveloped by a renewable energy company. The CWCSA communities were paying a tipping fee comparable to the current fee for the JCRRF. The CWCSA facility was a mass burn incinerator like the JCRRF with about three times the capacity. The CWCSA had less cash reserves available and greater obligations since it operated its own ash monofill that had to be closed, but were able to realize a tipping fee reduction almost immediately and a steady decrease over several years. In 2009 the city of Westland, the largest municipality in the CWCSA, launched a city-wide curbside recycling program that has achieved a 30 percent recycling rate.

#### Jackson County Solid Waste Management:

The closing of the JCRRF presents significant opportunities for improved services and job creation in Jackson County. This major transition should not simply be left to convert from incineration to landfill for disposal of the county's solid waste. In the course of the transition the county should engage in revising its county solid waste plan and form cooperative arrangements with cities, villages and townships in the county to improve recycling and the efficiency of collection services. Recycling creates 6 to 10 times as many jobs as waste disposal and can support locally based jobs. Northwest Refuse operates a Materials Recovery Facility (MRF) in Jackson County with currently underutilized capacity.

Brad van Guilder, Ph.D.  
Ecology Center Organizer



117 N. Division St.  
Ann Arbor, Michigan 48104  
Phone: 734.761.3186  
Fax: 734.663.2414

Suite 312  
4750 Woodward Ave  
Detroit, Michigan 48201

Appendix A – JCRRF bond payment schedule:

The following bond payment information was obtained from Mr. Randall Treacher, County Administrator through a Freedom of Information Act request. There are four bonds to be paid by the county with payment schedules below shown in dollars.

Bond Year	Revenue Refinance (5/1/2013)		GO Refinance (4/1/2013)		Delinquent Tax Refinance			Delinquent Tax			Grand Total		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total				
2010		38,796.88	38,796.88				42,517.47	2,482.53	45,000.00	193,983.74	18,056.26	212,040.00	295,836.88
2011	830,000.00	63,068.76	893,068.76	920,000.00	68,668.76	988,668.76	43,245.16	1,754.84	45,000.00	198,348.38	13,691.62	212,040.00	2,138,777.52
2012	915,000.00	31,959.38	946,959.38	875,000.00	35,587.51	910,587.51	43,985.30	1,014.70	45,000.00	202,811.21	9,228.79	212,040.00	2,114,586.89
2013	410,000.00	7,687.50	417,687.50	495,000.00	9,590.63	504,590.63	15,301.96	261.89	15,563.85	207,357.03	4,665.53	212,022.56	1,149,864.54

Appendix B – McGill Road Landfill (Waste Management):

According to the Michigan Department of Natural Resources and Environment (MDNRE) annual Report of Solid Waste Landfilled in Michigan (FY2009), the McGill Road landfill accepted 78,333 cubic yards of MSW and 48,152 cubic yards of Industrial and Construction & Demolition waste. Under this rate of acceptance the report projects 16 to 21 years of remaining capacity. MSW (not ash) is on average about three cubic yards per ton of waste. If the JCRRF is closed and that portion of trash landfilled as MSW instead of ash this could cut the remaining capacity time in half, which strongly supports the implementation of aggressive waste reduction through recycling as quickly as possible.